

ANNUAL REPORT 2016 - 17



**INDIAN INSTITUTE OF TECHNOLOGY
(INDIAN SCHOOL OF MINES), DHANBAD**

ANNUAL REPORT 2016 - 2017



**INDIAN INSTITUTE OF TECHNOLOGY
(INDIAN SCHOOL OF MINES)
DHANBAD – 826 004**

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Foreword

The journey of the Institute that started in 1926 as Indian School of Mines, Dhanbad to address the need of trained manpower related to mining activities in the country culminated as Indian Institute of Technology (Indian School of Mines), Dhanbad on 6th September 2016, by the notification of the MHRD, Government of India. The Institute that started with disciplines of Mining Engineering and Applied Geology gradually expanded by integrating most of the important core engineering disciplines so as to impart quality higher education in engineering, science and management.

I take this opportunity to present the development trajectory, the Institute has traversed, during the previous year in the following major areas, which is given the Executive Summary:

- Academics
- Research and Industry Institute Collaboration
- Experimental Facilities Developed
- External Cash Flow
- Discovery/ Major Technology Developed and Implemented
- International Endeavours
- Development of Major Infrastructure
- Students Activities and Achievements
- Societal Mission
- Organizational Development and Administration

In the last six years, the Institute achieved the overall growth varying between 135% and 794% in different critical performance parameters by virtue of transformational initiatives undertaken, thereby achieving a place to reckon with amongst the higher technical institutions in the country.

IIT (ISM) envisages growing in a pattern to be one of the leading institutes of the world and to serve the society at large. In view of the present diversification and expansion of the knowledge system, I with my team shall strive for the overall growth of the Institute and develop it as a hallmark in the higher technical education system of the country.

I express my deep appreciation to the students and indebtedness to the faculty members and employees of IIT (ISM), Dhanbad for their commitment to bring remarkable achievements for the Institute. Their commitment and hard work would result in Institute's goal towards achieving a nationally and globally acclaimed status.



[D C Panigrahi]
Director

Vision

To be an internationally acclaimed premier institution of higher technical and scientific education with social commitment having an ethos for intellectual excellence, where initiative is nurtured, where new ideas, research and scholarship flourish and intellectual honesty is the norm, and from which will emerge the leaders and innovators of tomorrow in the realms of technology. While serving as a catalyst in a developing society, its goal as one of the premier technology education institution of the country would be to intimately involve itself not just in the technological development of the Nation but also in its overall development.

Mission

- To educate and train manpower in various disciplines of engineering and technology, applied sciences, management and applied arts at the graduate, postgraduate and research levels;
- To foster the creation of new and relevant technologies in the areas of its core competency and to transfer them to industry for effective utilization;
- To participate directly in the planning and solving of engineering and managerial problems of relevance to industry and the society at large;
- To develop and conduct continuing education programmes for practicing engineers and managers;
- To develop strong collaborative and cooperative links with private and public-sector industries and government user departments;
- To develop comprehensive and intimate interaction with premier academic and research institutions within the country and abroad for mutual benefit,
- To develop programmes for faculty growth and development;
- To anticipate the technological needs of the Nation and to plan and prepare to cater to them;
- To interact with the community/society at large with a view to inculcate in them a feel for scientific and technological thoughts and endeavours; and
- To develop the region in which the Institute is located through community development programmes including training and education.

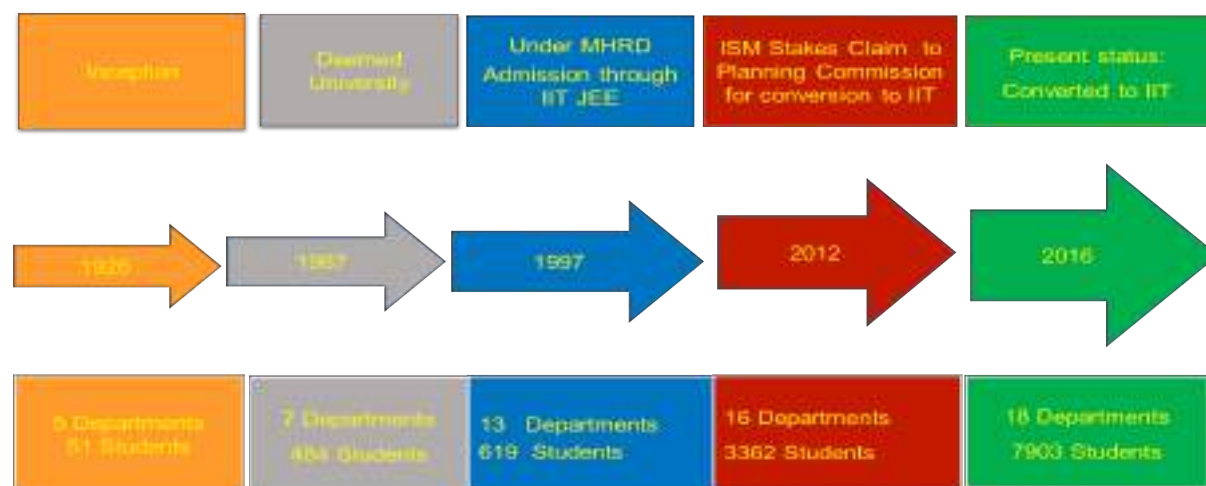
Executive Summary

Innovations and Marching Ahead towards Excellence

The Institute made rapid strides in its pursuit for academic and research excellence through the implementation of a number of innovative schemes and initiatives as under:

1. PROLOGUE

Today, the policy makers are concerned about the institutes of higher technical education of the nation which are not placed in the same bracket with that of the top institutions of the world. International ranking of the institutes are decided by several parameters which include growth in research publications, external funding for research and development activities, international collaborations, etc. Indian Institute of Technology (Indian School of Mines), Dhanbad has been consistently growing at a rate of over 35% annually in these parameters over the last six years. The journey of the Institute since its inception is given below:



The achievements of IIT (ISM) are the outcome of certain innovative measures undertaken by the Institute during the last six years. Some of these initiatives are discussed in the following sections.

2. ACADEMICS

2.1 Academic Programmes and Student Strength

In the Academic year 2016-17, IIT (ISM) offered 65 programmes at UG and PG levels compared to 48 programmes in the year 2010-11, apart from offering Ph.D. and D.Sc. in each department.

The details of programmes offered by IIT (ISM) are given below:

Sl. No.	Courses offered	No. of Courses	
		Till 2011	In 2016-17
1.	4-Year B.Tech.	10	13
2.	5-Year Dual Degree	5	5
3.	5-Year Integrated M.Tech./M.Sc.Tech/M.Sc.	5	3
4.	3-Year M.Sc.Tech.	2	2
5.	2-Year M.Sc.	3	3
6.	2-Year MBA	1	1
7.	3-Year Executive MBA		1
8.	2-Year M.Tech.	22	32
9.	3-Year M.Tech.		5
Total		48	65

During last six years, a number of new academic programmes have been offered at the Institute, which include four under graduate programmes (with admission through JEE Advanced), twelve 2-Year M.Tech Programmes, five 3-Year M.Tech Programmes and one 3-Year Executive MBA programme. The new programmes added during last six years are mentioned below:

B.Tech and Dual Degree Programmes

- B.Tech (Civil Engineering)
- B.Tech (Electronics & Instrumentation Engineering)
- B.Tech (Engineering Physics)
- Dual Degree (Computer Science & Engineering)

M.Tech Programmes (2-Years)

- Earthquake Disaster, Hazard & Risk Mitigation
- Computer Science & Engineering with Specialization in Information Security
- Power Electronics & Electrical Drives
- Chemical Engineering
- Reservoir & Production Engineering
- Opencast Mining
- Power System Engineering
- Design Engineering
- Manufacturing Engineering
- Thermal Engineering
- Mine Electrical Engineering
- Structural Engineering

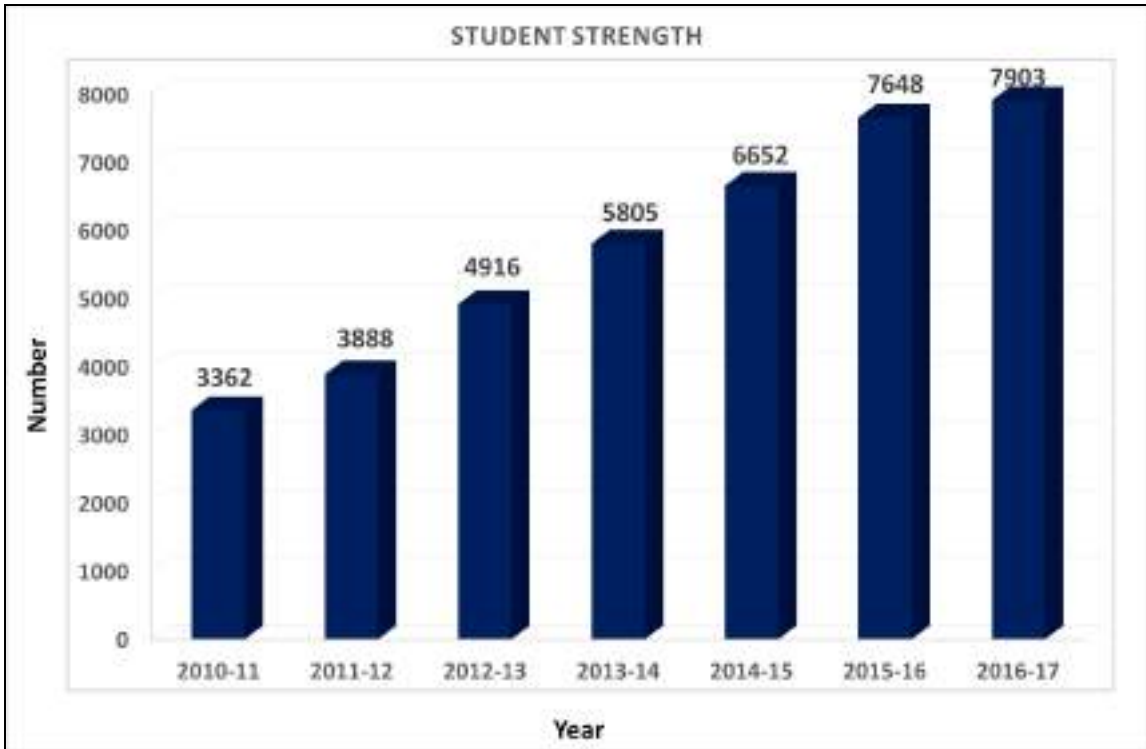
M.Tech Programmes (3-Years)

- Electronics and Communication Engineering
- Power Electronics & Electrical Drives
- Computer Science and Engineering
- Mechanical Engineering
- Power System Engineering

MBA Programme (3-Years)

- Executive MBA

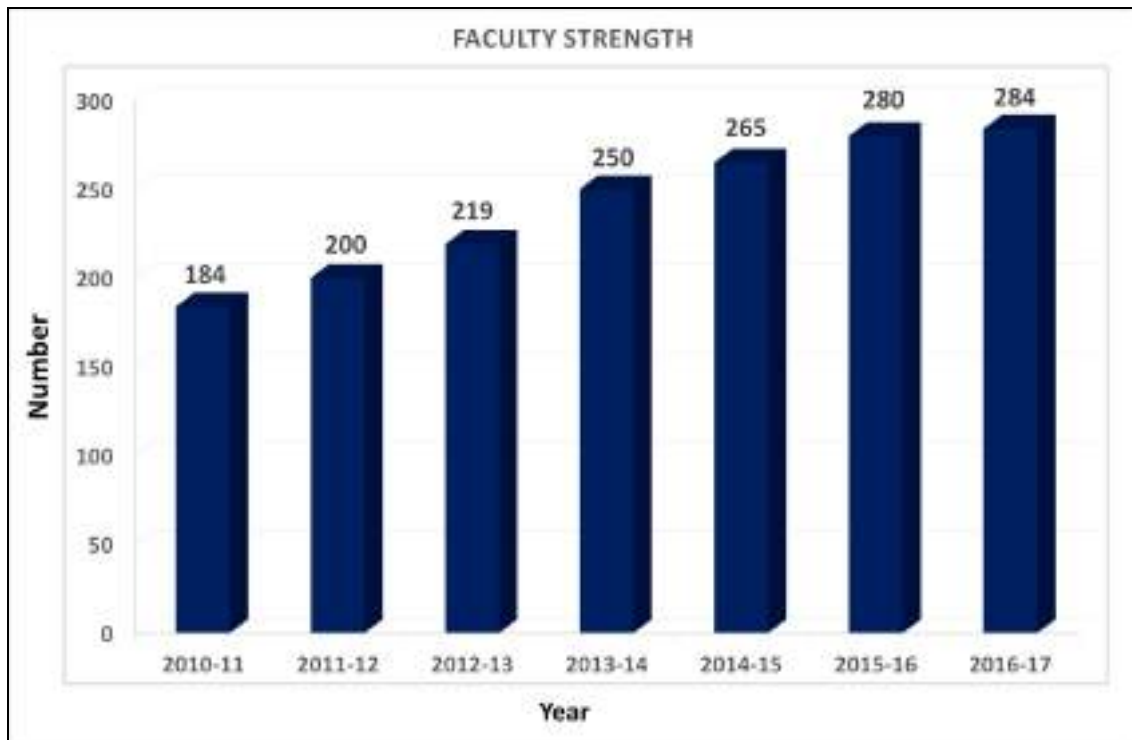
The student strength in 2016-17 has gone up to 7903 compared to 3362 in the year 2010-11 registering a growth of 135%. The comparison of student strength over the previous years is given here:



2.2 Faculty Strength

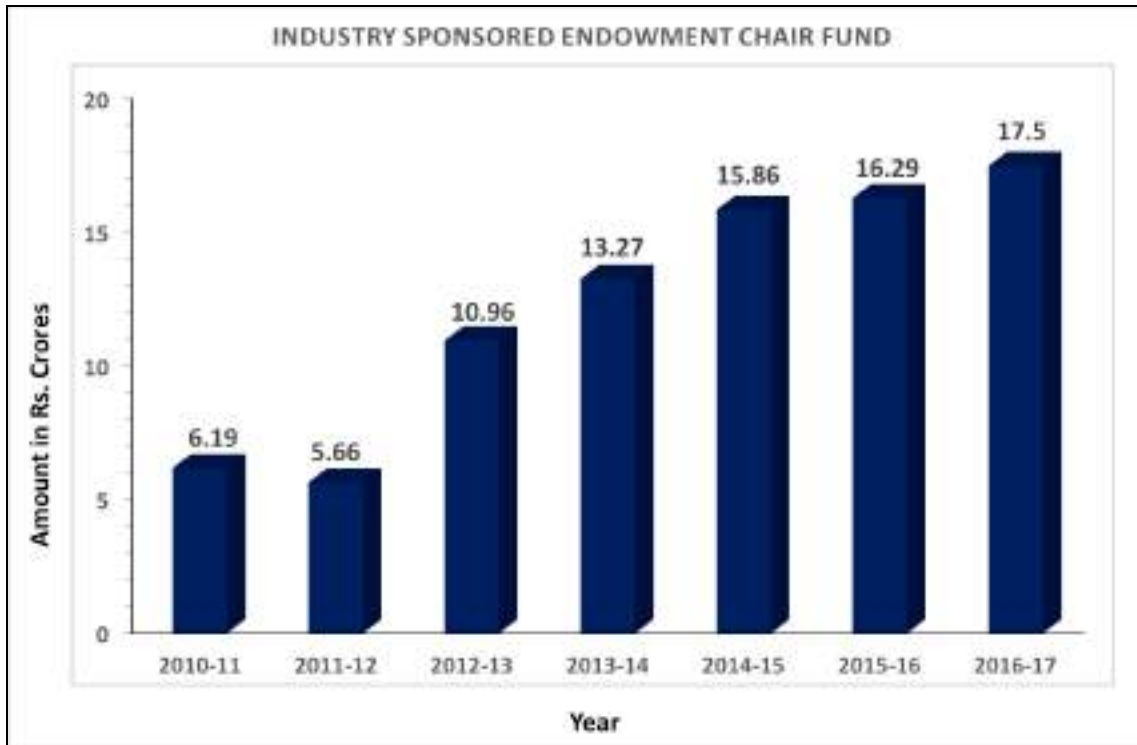
2.2.1 Full-time Faculty Members

In consonance with the increase in student strength, the number of faculty members has also gone upto 284 in 2016-17 as compared to 184 in 2010-11.



2.2.2 Chair Professors

In recognition to the longstanding interaction of IIT(ISM) and its contribution to industry, nine Endowment Chairs have been instituted by different public and private sector companies for the appointment of professors in specialized areas. The steady growth in endowment fund for Chair Professor posts in the last six years is shown below:



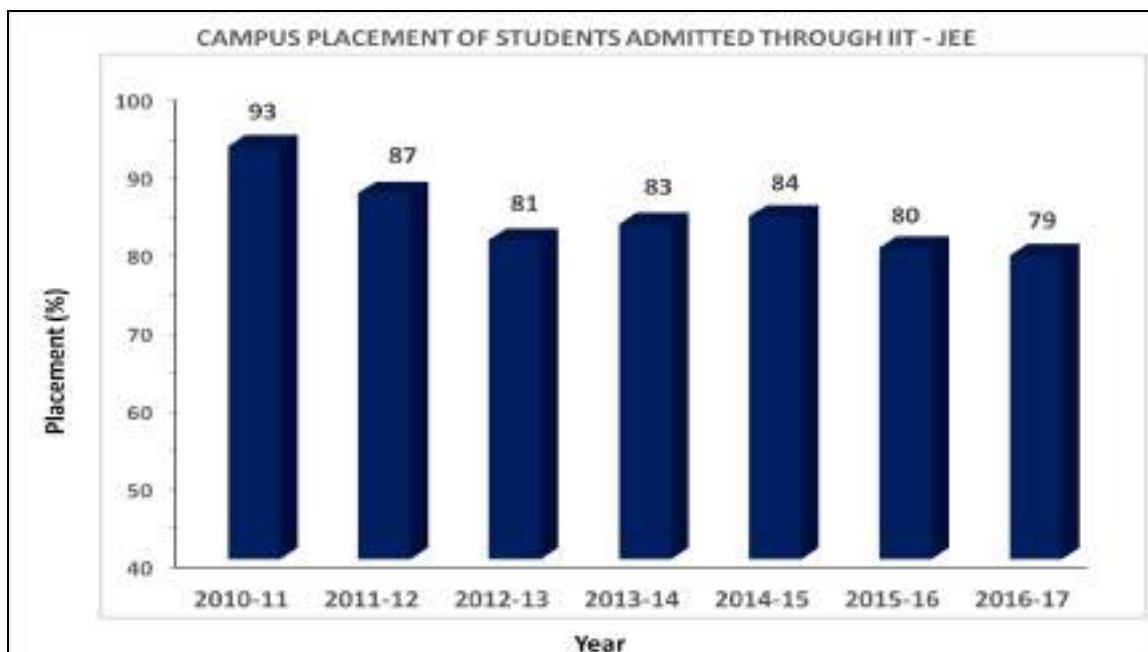
2.2.3 Adjunct Professors

In the year 2016-17, the total number of Adjunct Professors was 18 compared to 8 in 2010-11.

2.3 Campus Placement

The institute has maintained a sustained percentage of placement, though the number of graduating students has increased significantly over the years.

The placement percentage of students admitted through IIT-JEE over the last six years is presented below:



2.4 Innovative Initiatives in Academics

The major initiatives taken during the last six years for further strengthening the academic activities at IIT(ISM) are as follows:

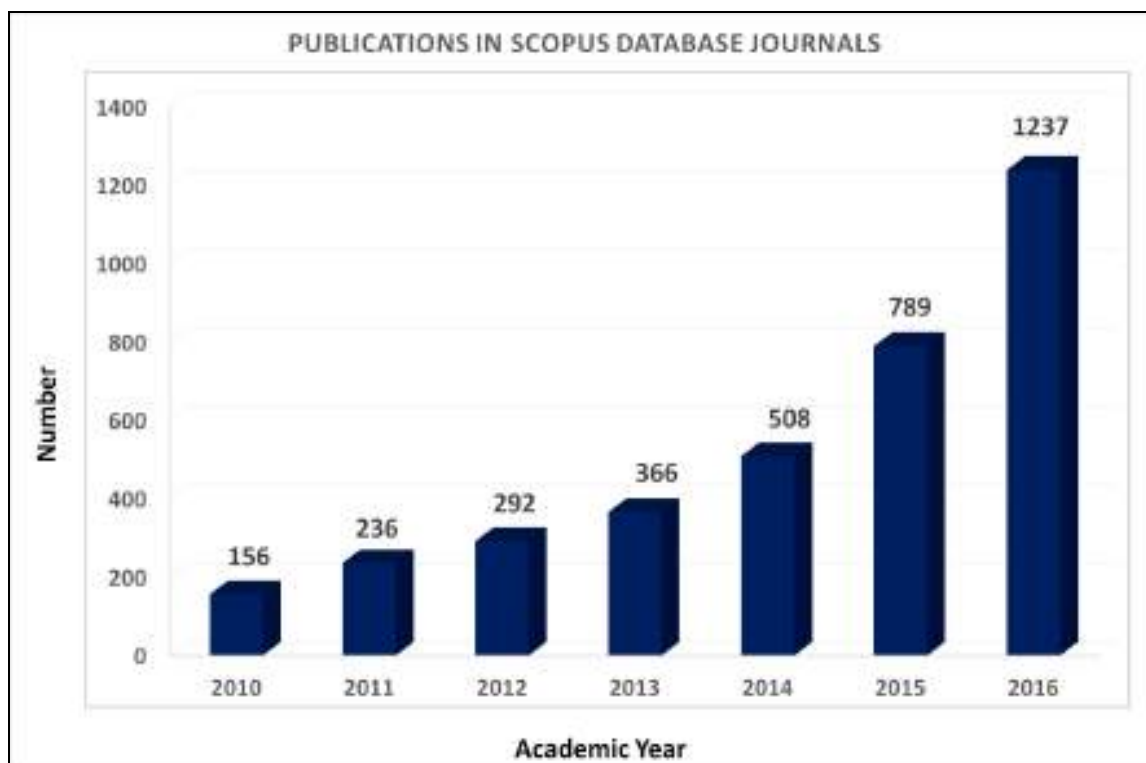
- Project mode learning from second year onwards.
- In-house development and implementation of online students' semester feedback system for every subject and for each teacher including the exit feedback at the end of a course.
- Introduction of Major, Minor and Honours for undergraduate courses.
- Introduction of foreign languages, leadership development, and entrepreneurship development programmes.
- Introduction of summer semester for academically weak students to improve the learning process.
- Introduction of relative grading system.
- Appointment of eminent persons including Padma awardees and retired faculty members from established IITs & IISc as adjunct /re-employed Professors.
- Conferment of externally funded sponsored awards to students and faculty members.
- Establishing new industry sponsored professional chairs and enhancement of funding for the existing chair positions.
- Introduction of new academic programmes.
- Accessibility of e-library sources by the students and faculty members in the hostels, quarters and also in the departments through campus-wide fibre optic network.
- Upgradation of syllabus from time to time positively within 3 years to maintain its contemporariness.
- Foreign exposure to selected students under semester exchange with credit transfer at top ranking universities in Europe under academic scholarship from European Commission.

3. RESEARCH AND INDUSTRY-INSTITUTE COLLABORATION

3.1 Publications

3.1.1 SCOPUS Database

The outcome of research resulting in growth of Research Publications indexed in SCOPUS database maintained by Elsevier, Amsterdam, Netherlands is as follows:

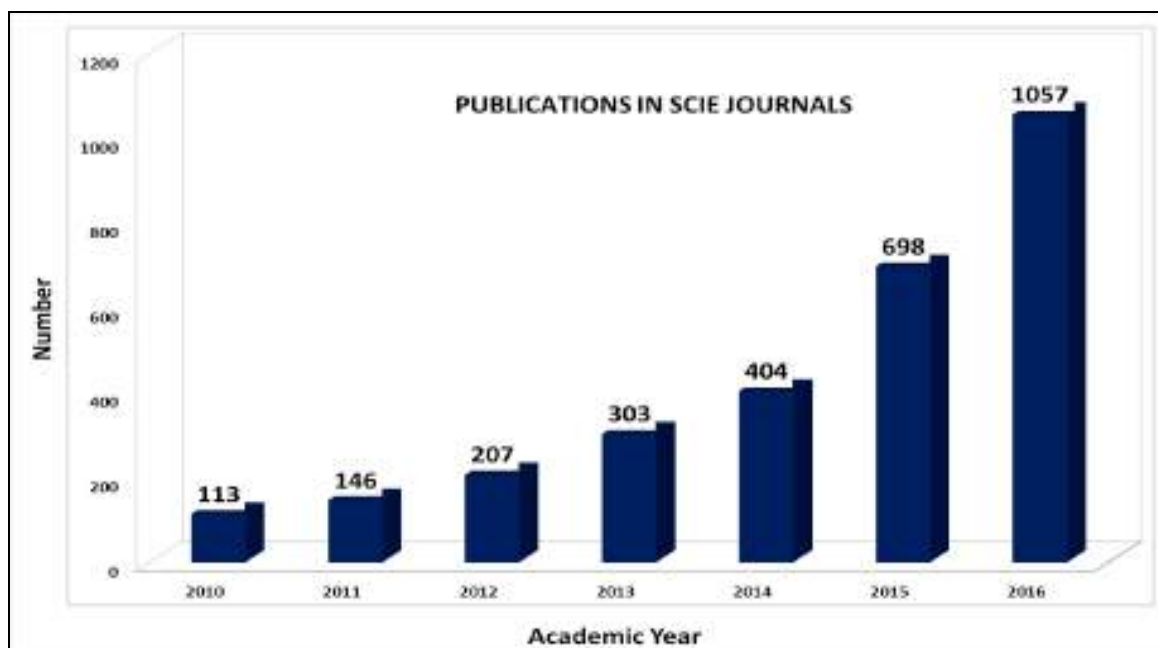


Year	No. of Publications	Per Faculty Publication	Yearly Growth of Publication	Overall Growth of Publication
2010	156	0.85	Base Year	
2011	236	1.18	51%	51%
2012	292	1.33	24%	87%
2013	366	1.67	25%	135%
2014	508	2.03	38%	226%
2015	789	2.97	55%	406%
2016	1237	4.35	56%	688%

The present per faculty publications is comparable to the top five IITs of the country.

3.1.2 Web of Science Database (WoS)

The outcome of research resulting in growth of Research Publications in Web of Science database is as follows:

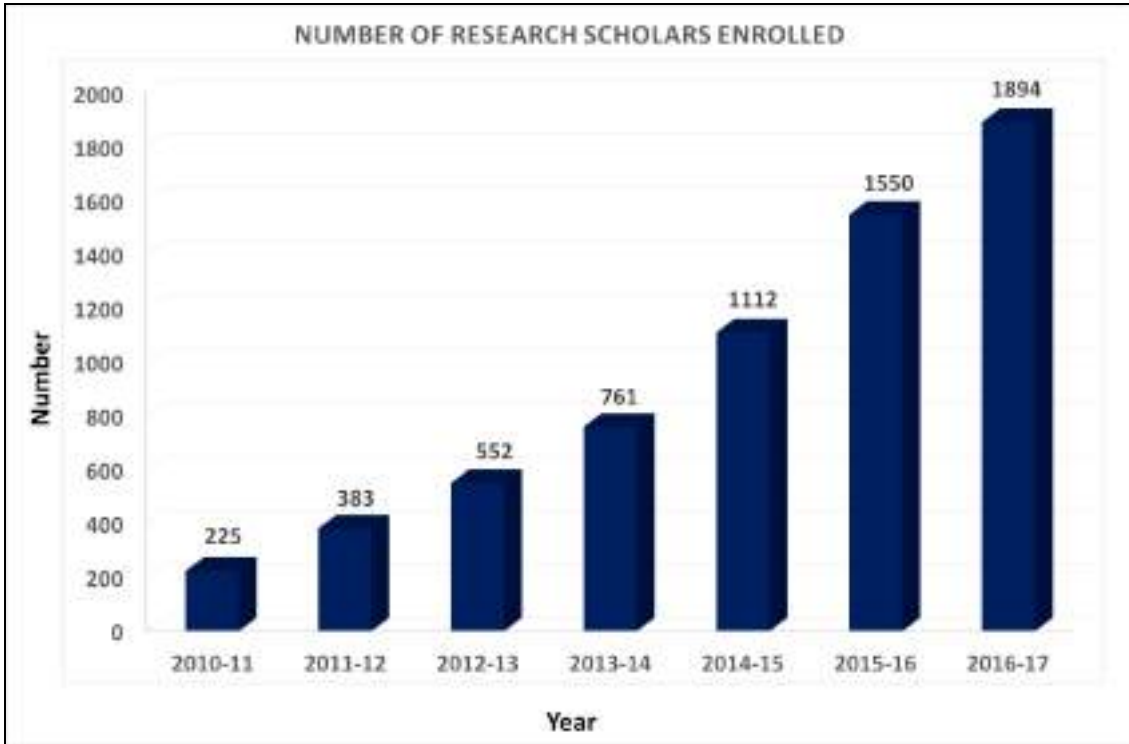


Year	No. of Publications	Per Faculty Publication	Yearly Growth (%)	Overall Growth (%)
2010	113	0.61	<i>Base Year</i>	
2011	146	0.73	29%	29%
2012	207	0.95	42%	83%
2013	303	1.21	46%	168%
2014	404	1.52	33%	258%
2015	698	2.49	73%	518%
2016	1057	3.72	52%	836%

3.2 Research Scholars and Ph.D. Degree Awarded

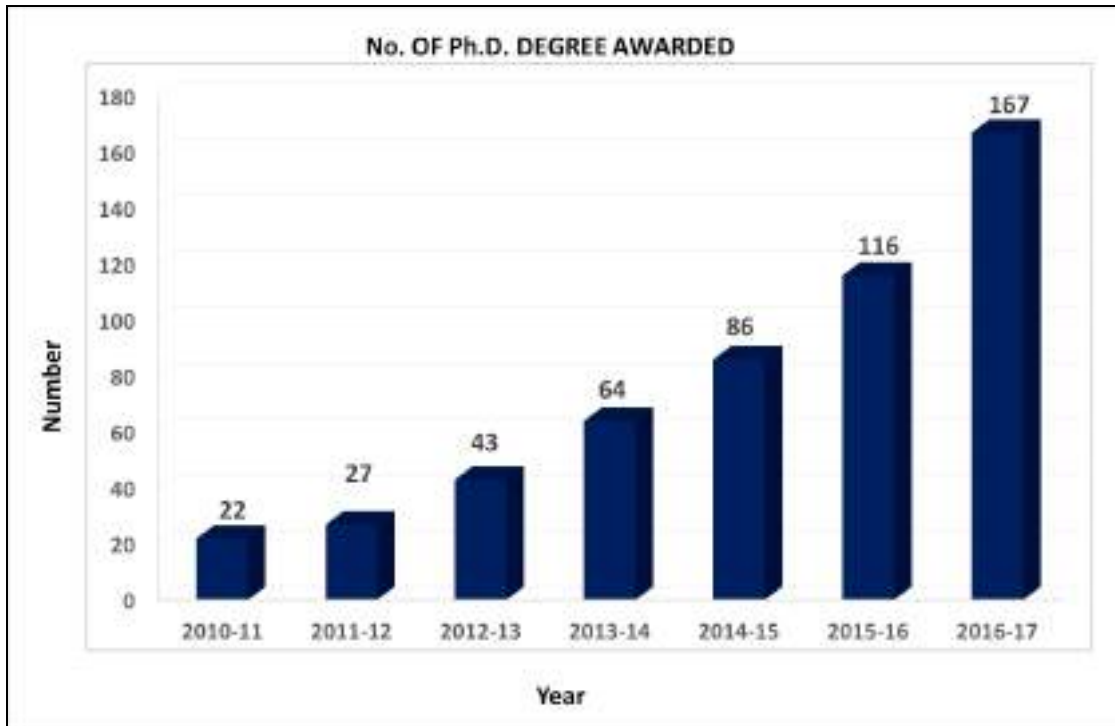
3.2.1 Research Scholars

The total number of research scholars has increased substantially in the last 6 years, witnessing growth from 225 in the year 2010-11 to 1894 in the year 2016-17. This recorded a growth of 742 % with respect to the base year 2010-11.



3.2.2 Ph.D. Degrees Awarded

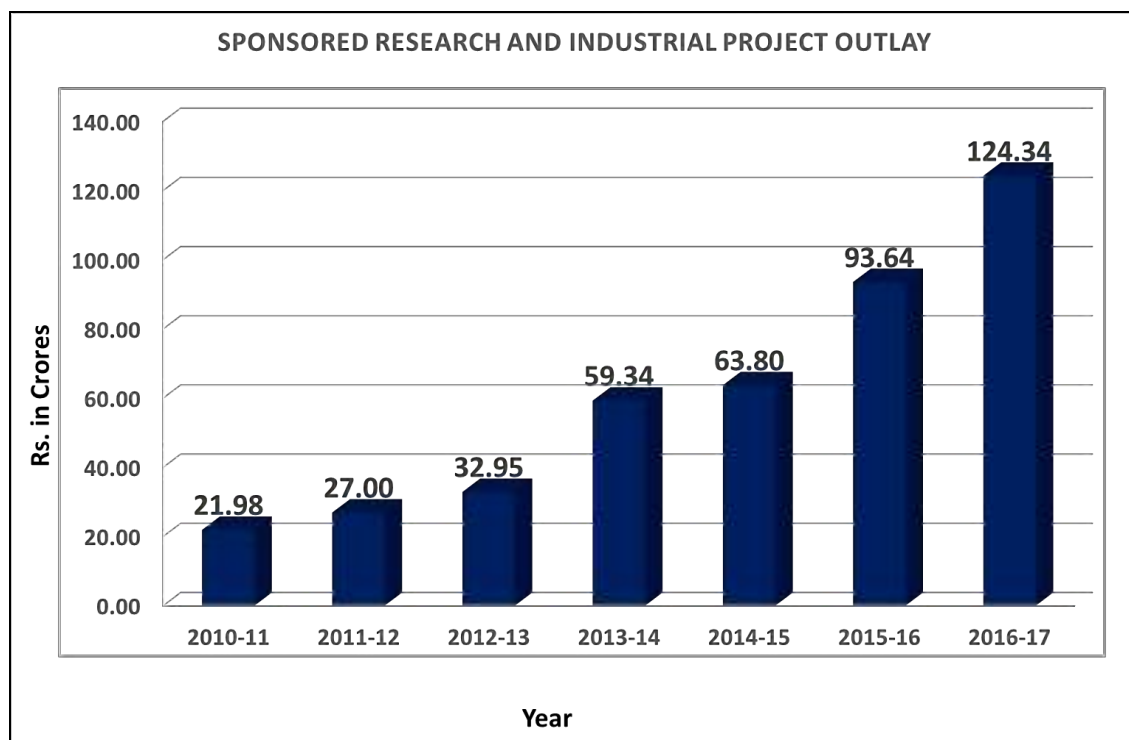
Also provided is the comparison of number of Ph.D. degrees awarded over the last six years period, which shows a growth of 659% over the base year 2010-11.



Year	No. of Ph.D. awarded	Yearly Growth (%)	Overall Growth (%)
2010-11	22	Base Year	
2011-12	27	23%	23%
2012-13	43	59%	95%
2013-14	64	49%	191%
2014-15	86	34%	291%
2015-16	116	35%	427%
2016-17	167	44%	659%

3.3 Sponsored Research/Industry Sponsored Projects

The Institute continued its growth in R&D and Industry sponsored projects and executed projects worth Rs.124.34 crores during the year 2016-17, which shows a growth of 33% over the last year and cumulative growth of 466% over the last six years. The comparison of outlay of projects in the last six years is presented below:



Year	Project Outlay	Yearly	Overall Growth
2010-11	21.98	Base Year	
2011-12	27.00	23%	23%
2012-13	32.95	22%	50%
2013-14	59.34	80%	170%
2014-15	63.80	08%	190%
2015-16	93.64	47%	326%
2016-17	124.34	33%	466%

In the year 2016-17, more than sixty-five organizations comprising government, public and private sectors have sponsored more than 500 sponsored R&D and Industrial projects.

3.4 Executive Development Programmes

IIT (ISM) has been contributing to the up-gradation of knowledge and expertise of executives of different companies by offering executive development programmes in its core areas of competence. Over the years, it has established excellent credentials in this area. The chart below depicts the cumulative number of participant-days of executives trained in each year.



3.5 Conferences and Workshops Organized

During the years 2011-17, seventy seminars, conferences and workshops were organized by various departments of the Institute.

3.6 Certificate Courses Organised

Apart from the Executive Development Programmes, a number of courses, workshops and certificate courses were conducted by the Departments of Computer Science and Engineering, Electrical Engineering, Electronics Engineering, Mechanical Engineering, Applied Geology, Applied Geophysics, Applied Chemistry, Applied Physics, Humanities and Social Sciences, Management Studies and other departments of the Institute. These training programmes include advanced algorithms and their applications, Linux operating system, Information and network security: goals, attacks and defenses, Foreign language courses (French, German, Chinese and Spanish), Transcending from studentship to corporate citizenship, Challenge the uncertain future with confidence, MATLAB and SIMULINK for engineering applications, Mine electrical engineering, Wireless communication and environment monitoring in underground mines - possibilities and implementations.

3.7 Establishment of Externally Funded Awards

During the years 2011-16, fourteen externally funded awards were instituted for students, faculty members and staff of the Institute to promote academic and research excellence.

3.8 Industry-Institute Interaction Facilities

IIT (ISM) has established Industry-Institute Interaction Facilities (IIIF) at two metro cities of the country during last six years.

<i>Centre</i>	<i>Address</i>	<i>Area(in sq.ft)</i>	<i>Estd.</i>
<i>IIIF Kolkata</i>	<i>NBCC Shopping Centre, New Town, Rajarhat Kolkata</i>	<i>16000 sq.ft</i>	<i>2015</i>
<i>IIIF New Delhi</i>	<i>Unit No.401, NBCC Centre, Plot No.02, Okhla Phase-I, New Delhi</i>	<i>20000 sq.ft</i>	<i>2017</i>
<i>IIIF Ranchi</i>	<i>Establishment of IIIF with a Geological museum at Ranchi is being proposed and the Govt. of Jharkhand has agreed in principle to provide active support</i>		

The main objectives of the Industry-Institute Interaction Facilities are:

- To interact with the industries for solving real-life problems
- To update the knowledge and skills of working executives
- To facilitate student placements, important meetings, recruitment of teachers, etc.

3.9 Centres of Advanced Learning

IIT(ISM) has been recognized as a Centre of Advanced Learning in the fields of mining, mineral, mining environment, earth sciences, petroleum, mining machinery, mine electronics, applied sciences etc. There were five research centres existing at IIT(ISM) upto the year 2011. Eleven new centres were added during the period 2011-17, which are as follows:

Research Centres upto 2011

- Centre for Mining Environment
- Centre of Advanced Study in Mining Engineering
- Centre of Rock Excavation Engineering
- Centre of Long wall Mine Mechanization
- ENVIS Centre of MoEF & CC

New Research Centres added during 2011-17

- Central Research Facility
- Centre of Water Resource Management
- Centre of Excellence in Safety, Occupational Health and Disaster Management
- Key Resource Centre for Water and Sanitation
- Centre for Renewable Energy
- Centre of Excellence in Mining Technology
- Australia-India Joint Research Centre for Clean Coal and Energy Technology
- Reservoir Characterization Centre

Other Centres added during 2011-17

- Centre for Innovation, Incubation, and Entrepreneurship
- Faculty Development Centre as a part of Pandit Madan Mohan Malviya National Mission for Education
- Centre for Societal Mission

3.10 Innovative Initiatives for Augmenting Research and Industry-Institute Collaboration

The innovative steps taken in the areas of Research, Innovation and Development are as follows:

- Establishment and operationalization of state-of-the-art Central Research Facility (CRF).
- Institution of Post-Doctoral Fellowship programme.
- Opening of Centre for Incubation, Innovation and Entrepreneurship in sync with stated Govt. Policy of encouraging start-ups.
- Establishment of eight new Research Centers as mentioned above.
- Institutionalized goal setting system for faculty members and departments for improvement of research and industry interface. Faculty members encouraged to set own professional targets in consonance with Departmental/Institutional goals.
- In consonance with global standard, publications in SCIE/SSCI journals made mandatory for the award of Ph.D. degree.
- Regular review of Research Scholars.
- Conferment of industry and externally sponsored awards to students, research scholars and faculty members for excellence in research.
- Established linkages with 29 foreign universities and organizations for collaborative academic and research activities of students and faculty members.
- Institution of CIIE for the support of innovations, patent filing, etc. to faculty members and students.
- Enhancement of Research Grant under Faculty Research Scheme.
- Revision in consultancy rules, Faculty Development Fund, etc.

Innovative steps introduced in the Industry-Institute Collaboration are as follows:

- Operationalization of Industry-Institute Interaction Facilities (IIIF) at Kolkata and New Delhi from Institute generated resources for interacting with industries to solve real-life problems and to update the knowledge and skills of working executives.
- Encouragement of interdisciplinary teams and proposing consultancy in multidisciplinary areas.
- Seamless interaction for cutting-edge technology development and refinement with industry.
- Slow-paced Post-graduate programmes (3–Year M.Tech. Programmes) at IIIF for working professionals with a goal of capacity building, knowledge exchange and enhancing problem solving skills under an academic environment.

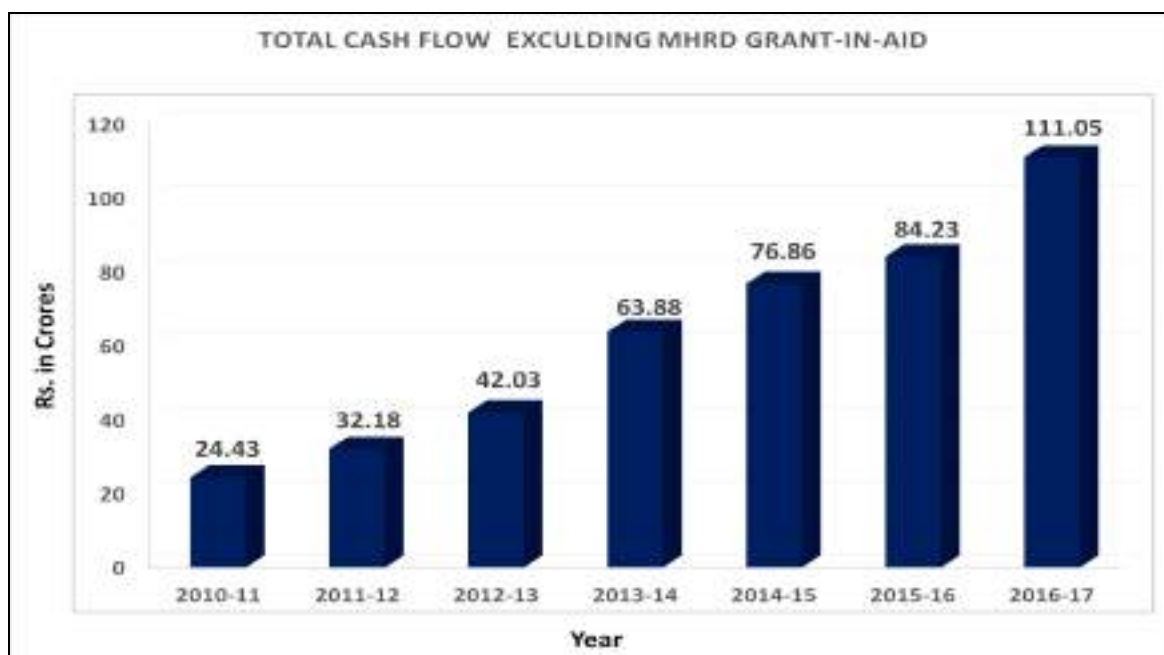
4. EXPERIMENTAL FACILITIES DEVELOPED DURING LAST SIX YEARS

One hundred and fifty-five numbers of major experimental facilities have been setup under the Central Research Facility (CRF) and various laboratories of all Departments of the Institution in order to enhance the academic and research potential of students and faculty members, out of which, a few major experimental facilities developed for the interdisciplinary research areas are listed below:

<i>Name of Equipment</i>	<i>Purpose/Uses</i>	<i>Year of Installation</i>
FE-SEM (Field Emission Scanning Electron Microscope) Software :Smart SEM	To find the surface structure, surface morphology & elemental composition.	2013
RHEOMETER Software :Bohl in R6.51.0.3	To find the viscosity & strength of the liquid & gel sample.	2013
UV-VIS-NIR Spectro photometer Software :Carry Win UV	To find the optical properties of liquid, solid & thin film sample.	2014
EPMA (Electron Probe Micro Analyzer) Software : Cameca Peak Sight V5.1	To find the qualitative, quantitative, x-ray mapping & BSE image.	2014
SPM (Scanning Probe Microscope) Software :Nano Scope Analysis 1.5	To find the 3D mapping, topography with roughness & height profile, Microscopy like MFM, CFM, EFM etc.	2014
MALSS (Multi Angle Light Scattering Spectrophotometer) Software :Par SEC Chromatography Software :Nano Scope Analysis 1.5	To find the average molecular weight and PDI of polymer sample.	2017
Single Crystal XRD Software :38.46 CrysAlis PRO	To find the structure of crystal	2017

5. TOTAL EXTERNAL CASH FLOW

Progress of External Cash Flow (ECF), other than grant-in-aid of MHRD for last six years is presented below, which shows 34% growth over last year and cumulative growth of 363% over the last six years, i.e. from Rs. 24.43 crores in the year 2010-11 to Rs.113.07 crores in the year 2016-17.



<i>Year</i>	<i>Cash Flow (Rs.in crore)</i>	<i>Yearly Growth</i>	<i>Overall Growth</i>
2010-11	24.43	<i>Base Year</i>	
2011-12	32.18	32%	32%
2012-13	42.03	31%	72%
2013-14	63.88	52%	161%
2014-15	76.86	20%	215%
2015-16	84.23	10%	245%
2016-17	113.07	34%	363%

6. DISCOVERY/ MAJOR TECHNOLOGY DEVELOPED AND IMPLEMENTED IN THE LAST SIX YEARS

One significant discovery and eighteen major technologies developed and implemented in the mineral and allied industries in the last six years are listed below:

- Discovered the largest ever manganese ore deposit of about 30 Million Tonnes in 2017 with estimated value of Rs. 36,000 crores.
- Self-Advancing Goaf Edge Support (SAGES) for improvement of safety in underground coalmines.
- Development and implementation of technology of mine cooling and air conditioning for improving underground mine environment upto 1 km depth from surface.
- Development of “VENTSYS” software for solving complex sub-surfaces mine ventilation problems including mine fire.
- LASER guided and gyro-based precision surveying technology for correlation in underground mines and alignment of tunnels.
- Under-water drilling and blasting technology for deepening of existing ports and intake channels for movement of large ships and heavy vessels for docking in the ports.
- Design and development of Caverns for Strategic Petroleum Reserve (SPR).
- Design and implementation of mine ventilation system for reduction in radiation dose in all the seven underground mines of Uranium Corporation of India Ltd. operating upto a depth of 940 m from the surface.
- Design and implementation of particulate Emission Control System for Coke-Oven Plants.
- Enrichment of low grade iron ore fines for use in steel making.
- FRP (Fibre Reinforced Plastic) blades for high capacity mine ventilation fans.
- Development of system for conservation of energy in main mine ventilation fans.
- Design and development of Jigs and Heavy Media Cyclones for treatment of different coals.
- Development of pilot scale technology for underground coal gasification.

- Discovery of Chromite deposits in Sukinda Chromite Belt.
- Electrical Resistivity Imaging and Self Potential Survey for locating Fracture Zones and Seepage Analysis in coal mines.
- Energy Efficient Hydrostatic transmission system for off-road vehicles using two motor summation drives.
- Integrated sensor technology for mobile robotic application in mining industry.
- Development of performance standardization techniques for Surface Continuous Miners for enhancing indigenous surface miner usage in coal and lime stone mines in collaboration with L&T.

7. INTERNATIONAL ENDEAVOURS

A new beginning in the area of international relations has been made by creating new position at the level of Associate Dean (International Relations and Alumni Affairs) in 2012 to enhance the academic and research collaborations with different universities/institutions across the globe. Principal activities under taken in international collaborations are as follows:

7.1 Prime Minister mandated Indo-Australian Joint Research Initiative

A joint statement was made on 18th November 2014 by Honourable Prime Ministers of India and Australia to explore opportunities for partnership between Australian Institutions and IIT(ISM), Dhanbad in the area of Clean Coal and Energy Technologies. The statement is reproduced below:

“Energy is a central pillar of the economic relationship. Prime Minister Abbott and Prime Minister Modi agreed to expedite approvals for key mining investment projects. They agreed to cooperate on clean coal technologies and welcomed the intention to explore opportunities for partnership between Australian institutions and the Indian School of Mines in Dhanbad.”

Taking forward the joint statement, MoUs were signed between IIT(ISM) Dhanbad, India and eight universities, two research organizations and one industrial partner of Australia, viz. Curtin University of Technology, University of New South Wales, University of New Castle, University of Wollongong, University of Western Sydney, University of Queensland and, Monash University, Simtars, CSIRO and TVS-LUCAS-UGTC; for research and academic collaborations in the areas of Energy, Clean Coal Technologies and Mines Safety.

- Australia-India Centre for Clean Coal and Energy Technologies (AICCET) has been established at IIT (ISM) Dhanbad and Curtin University, University of Queensland, University of New Castle and CSIRO, Australia for conducting joint research in the areas of Energy and Clean Coal Technologies.
- Ongoing exchange of research scholars between IIT(ISM), Dhanbad, India and Curtin University, Australia towards the joint Ph.D. programme will broaden the horizon of young researchers of both the countries and open newer vistas of research for them.
- To take the collaborative initiatives further, Australian High Commission in India has established position of Australia-India Partnership Coordinator at IIT (ISM), Dhanbad.
- R&D projects worth Rs. 45 crores are ongoing with joint collaborations with Australian universities and organizations. All the projects have the consent of Australian Collaborating University/Institute.

- The Centre of Excellence in Mining Technology (CEMT) has also been established at IIT(ISM) Dhanbad in collaboration with Australian institutions and research organizations for conducting research in the areas of Advanced Mining Technology and Mines Safety. Under this research centre, a Virtual Reality Mine Simulator (VRMS), a unique facility is being developed at IIT(ISM) Dhanbad.

A joint statement was made by the Honourable Prime Minister of India, Shri Narendra Modi and Honourable Prime Minister of Australia, Mr. Malcolm Turnbull MP on April 10, 2017 during the visit of Australian Prime Minister to India. A part of the joint statement under the heading “Energy, Resources and Environment” is given below:

Prime Minister Turnbull briefed Prime Minister Modi on the Australia-India mining partnership at the Indian Institute of Technology-Indian School of Mines (IIT-ISM), Dhanbad. Partnership activities with Australian institutions in clued research and development collaboration, training and technology transfer.

7.2 International Academic and Research Collaborations

Strengthening the academic and research frontiers in tune with the advances that are taking place globally is the key for developing into a world-class institution. To open up the doors for facilitating cutting-edge research, IIT (ISM) has established collaborations with 29 world class Universities/Institutions and some of the institutions in developing countries in consonance with the vision of the Government of India. The following is the list of Universities/Institutions with whom active collaborations have been established:

America

- Texas Tech University, USA
- University of South Florida-St Petersburg, USA
- Arkansas State University, USA
- University of Windsor, Canada
- Laurentian University
- Politecnica De Universidade De Sao Palo, Brazil

Australia

- Curtin University of Technology
- University of New Castle
- University of Wollongong
- University of New South Wales
- University of Queensland
- University of Western Sydney
- Monash University
- Safety in Mines, Testing & Research Station (Simtars)
- CSIRO
- LUCAS-UGTC

Europe

- Clausthal University of Technology, Germany
- Politecnico Di Torino, Italy
- Perm National Research Polytechnic University (PNRPU), Perm
- Politecnico Di Torino (Dept. of Mechanical and Aerospace Engineering)
- Technical University of Kosice, Slovakia
- University of Osijek, Croatia
- Institute of Geonics, Czech Republic

Asia and Africa

- University of the Free State, South Africa
- University of Western Cape, South Africa
- National United University, Taiwan
- Botho University, Botswana
- University of Tunis and National High Engineering School of Tunis, Tunisia
- All Nations University, Ghana

7.3 International Student/Faculty Exchange Projects

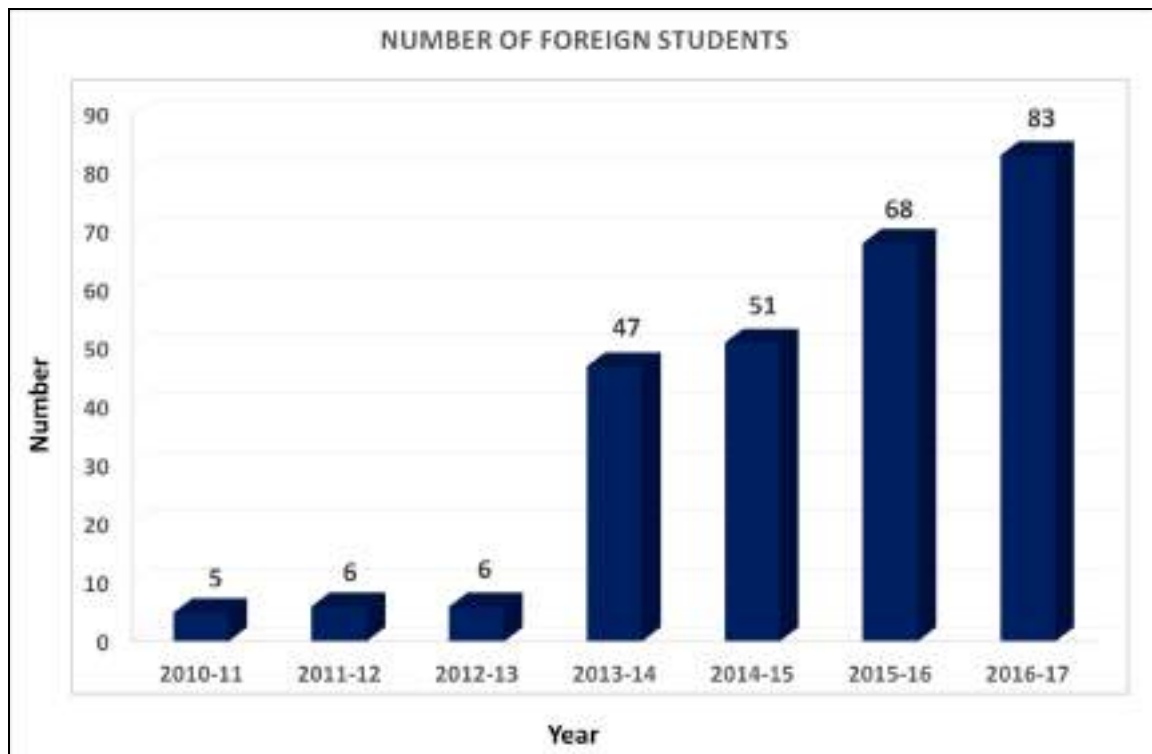
With the full financial support from the European Commission, reciprocal mobility of students of IIT (ISM) and foreign universities and transfer of credits earned have been introduced to provide the young and brilliant minds an international exposure along with an opportunity to work on some advanced research areas. The following are the major projects accomplished in the last four years in the European Institutes. The total number of mobilities is 51 and the total man-months spent by the students and faculty members are 356.

The breakup of the same is given below:

- Erasmus Mundus India 4EUII Project: 23 mobilities with 194 man-months
- Erasmus Mundus AREAS + Project: 16 mobilities; 117 man-months
- Erasmus Mundus EMINTE Project: 3 mobility; 7 man-months
- Erasmus Mundus MOBILE + Project: 9 mobility; 38 man-months

7.4 Admission of Foreign Students

Even though the institute is located in a geographically challenged place, the number of International students in the campus has increased substantially from 5 in 2010-11 to 83 in 2016-17, which includes students from USA, Italy, Spain, Venezuela, Ghana, Tanzania, Nigeria, Uganda, South Sudan, Mozambique, and Afghanistan. These students mainly pursue their Masters and Doctoral studies apart from some short-term-study abroad programmes. The growth in enrolment of international students at IIT(ISM) is depicted below.



7.5 Important International Assignments

The following international academic activities have been accomplished:

- Programme organized for students of University of South Florida, USA under study abroad programme.
- Mineral resource planning and execution for Government of Bangladesh.
- Preparation of Detailed Project Report to establish Afghan Institute of Mining at Kabul assigned by Ministry of External Affairs, Government of India to augment bilateral diplomacy between Government of India and Islamic Republic of Afghanistan.
- Accomplishment of 12 Executive Development Programmes for 180 executives/senior officials of different ministries and technocrats of Islamic Republic of Afghanistan.
- Human resource capacity building for mines and mineral sectors of Afghanistan, a strategically important ally of our country.
- Accomplishment of Executive Development Programme on Ore Mineralogy and Mining for the officers of Institute of Mining, Mineralogy and Metallurgy (IMMM), Bangladesh Council of Scientific and Industrial Research (BCSIR), Govt. of Bangladesh.
- Accomplishment of Executive Development Programmes on Mine Management, Legislation, and General Safety for the officers of Barapukuria Coal Mining Company Limited (BCMCL), Bangladesh.

7.6 Innovative Initiatives in the area of International Endeavours

The innovative steps taken in the area of International Endeavour during the six years period are as follows:

- Establishment of International Executive Development Centre.
- Establishment of International Hostel.
- Formulation of guidelines and image building of the institute for attracting foreign students in taking admission to post-graduate and Ph.D. programmes of IIT(ISM).
- Establishing collaborations with 29 universities and research organizations cutting across all continents in the field of research and academic activities.
- Prime Minister mandated Indo-Australian joint research initiative undertaken for Clean Coal and Energy Technology.
- Exchange of research scholars between IIT(ISM) Dhanbad, India and Curtin University, Australia towards joint Ph.D. programme.
- Reciprocal mobility of students of IIT(ISM) and foreign universities and transfer of credits earned.
- Institute credited to mentor another institution from inception to operationalization in a friendly foreign Country (Islamic Republic of Afghanistan) as a part of the bilateral relation.
- Encouraged and sponsored 340 numbers of visits by the faculty members to different universities/ research institutions abroad during the last six years for research and academic collaborations.
- Formation of IRAA group under the leadership of Associate Dean (International Relations and Alumni Affairs) with one faculty coordinator from each department to establish linkage with internationally acclaimed institutions.

8. DEVELOPMENT OF MAJOR INFRASTRUCTURE

The Institute witnessed major infrastructural growth during this phase of expansion (2011-17) wherein 17.11 lakh square feet of covered area construction has been added and put to use and further construction of approximately 14.71 lakh square feet is in progress. All these construction activities are being under taken by CPWD.

Steps taken for creating additional infrastructure during six-year period are as follows:

- An integrated approach to address the space and laboratory requirements of different Departments and Centres.
- Establishment of Student Activity Centre for holistic development of the students.
- Construction and operationalization of a 20-bedded institute hospital with 24x7 medical facilities.
- Construction of 1000 capacity girls hostel, 2000 capacity boys hostel, 120 Type V flats, and 60 Type VI flats for faculty members.
- Improvement in all old quarters to make it contemporary in facilities
- Construction of multi-utility campus Shopping Centre

- Transfer of 9 acres of contiguous land from the Government of Jharkhand to IIT(ISM) and initiative to acquire another 350 acres.
- Self-contained students amenities in the hostel complexes.
- Central Library, centrally air-conditioned seven storeyed building, automated in terms of record management, information retrieval and service delivery.
- Faculty Development Centre as a part of Pandit Madan Mohan Malviya National Mission for Education.
- Campus-wide fibre optic network for providing internet connections to all the rooms in the hostels, all faculty quarters and library.
- Fully rain water harvested campus.
- Operationalization of sewage treatment plants.
- First Sub-way of Jharkhand across National high-way, connecting two campuses.
- All new infrastructures are GRIHA complied.
- Dedicated power supply from DVC (Hotline) independent of state electricity board.
- Dedicated RO plant for each institute building.

9. STUDENTS ACTIVITIES AND ACHIEVEMENTS

To facilitate the overall development of students, the institute provides all the required amenities. Some of the student amenities added during the last six years are listed below:

Student Activity Centre

- Swimming pool
- Gymnasium
- Snooker and Billiards Rooms
- Student Canteen
- Squash Court
- Boxing Ring
- Yoga Centre
- A host of clubs for pursuing their hobbies
- Indoor Badminton Courts

Some of the notable achievements of Students' Societies at IIT (ISM) are listed below:

- The IIT (ISM) Student Chapter of Society for Mining, Metallurgy & Exploration (SME) has been awarded with the Outstanding Student Chapter Award for the session 2015-16 on February 22, 2017 in the SME Annual Conference & Expo at Denver, Colorado, USA.
- The competition was among 60 international student chapters of SME. The first runner-up was University of Kentucky, USA and the second runner up was Colorado School of Mines, USA.

- The SPE student Chapter won the “Gold Standard” award for its activity by SPE-USA in the year 2014.
- Petrotech Students chapter received the 2nd best chapter award in 2014.
- Mechismu club of IIT (ISM), Dhanbad built a formula prototype vehicle and won the first prize in coveted autocross event and finished fifth overall in Supra SAE India 2011. The prototype car was adjudged the lightest car in Supra SAE India 2012. The club bagged the sixth position in Formula Design Challenge 2015.
- The SPE student Chapter won the “Outstanding student chapter” award for its activity by SPE - USA in the year 2015.

10. SOCIETAL MISSION

In consonance with the 'Unnat Bharat Abhiyan' scheme initiated by Shri Narendra Modi, Honourable Prime Minister of India, a “Center of Societal Mission (CSM)” has been made operational at IIT (ISM), Dhanbad since early 2015 as a part of national initiative of Government of India. Different groups of students involved in social services under CSM detailed below:

10.1 Kartavya

Kartavya Group provides education, nutritious diet and medical help to 443 children of poor and tribal community.

- Presently, the undergraduate students with help from faculty, officers, alumni and other well-wishers are running 12 centres under different chapters of Kartavya.
- Around the IIT (ISM) campus there are 5 active education centres being operated by undergraduate students, namely Lahabani, Koranga Basti, Mandal Basti, Barmasia and Dhैया School, providing education, nutritious diet and medical help to 443 children of poor and tribal community.

10.2 Karmajyoti

This societal group of IIT (ISM) Research Scholars runs six educational centres for poor children of underprivileged communities, in and around IIT (ISM).

- 309 students have been enrolled in different classes ranging from Class V to Class XII in the education centres operated at Govindpur, Hirapur, Waseypur, Dhैया Gate, Chhai Gada Slum Bastietc in Dhanbad and Children Activity Centre at IIT(ISM).
- Karmajyoti organizes daily free Yoga classes as a part of our healthcare project at Students Activity Center (SAC).
- 17 students have cleared Jharkhand JEECE 2017.
- One student got All India Rank 2 (SC) in IIT(ISM) M.Sc./M.Sc.(Tech.) examination 2017.

10.3 Fast Forward India

This group is involved in providing healthcare facilities to nearby areas of IIT (ISM) and organizes blood donation camps regularly. This mission achieved the distinction of donating the highest quantum of blood (846 units on a single day and 1191units in the year 2014-15) in Jharkhand State. This has been recognized at national level by the Government of India.

10.4 Sa-mitra

This group is involved in social care of poor and under privileged people, and organizes “PARIVESH-clothes for charity” programme regularly. The group distributed 1700 clothes in a single day to the residents of leprosy ashram in Barmasia, and poor and tribal people residing near Dhanbad Railway station in 2016.

11. ORGANIZATIONAL DEVELOPMENT & ADMINISTRATION

Major administrative/managerial endeavours undertaken during the last six years can be summarized as under:

- Successful implementation of in-house developed MIS and on-line Student Feedback System.
- Streamlining of the promotional avenue of staff members and implementing DPC after a gap of 23 years.
- Achievement of almost Nil attrition rate for faculty members.
- Improvement Group for formulating policy frame work for all round growth.
- Adoption of new Store and Purchase Manual to stream line purchase process and disposal of dead stocks occupying valuable space.
- Restoration of IIT pay-scale for all faculty members.
- Backlog audit paras of the last 20 years stream lined and resolved.
- Successful steering the growth path of the Institute, justifying its conversion to IIT.
- Successful persuasion with the State Government, resulting into first phase acquisition of land since 1967.
- Co-hosted the 34th National Games in 2013 on behalf of the State of Jharkhand.
- Change of the overall student mess system, contract based unitary mess management system under the administrative committee of students and hostel administration.
- Implementation of student management through MIS.
- Student participation in management by the formation of Student Coordination Group.
- Goal setting appraisal at the institute level.
- Establishment of automated mass cooking system in the hostels.
- MACP and ACP implemented after 15 years and now being held twice every year.
- Direct recruitment of 39 office assistants, the largest one in the last 25 years.
- Creation of new posts of Deans and Associate Deans.
- Realistic performance feedback through student feedback system.

1. ABOUT IIT (ISM), DHANBAD

Indian Institute of Technology (Indian School of Mines), Dhanbad was established in 1926 to address the need for trained manpower related to mining activities in the country with disciplines of Mining Engineering and Applied Geology. In 1967, it was granted status of a Deemed to be University under Section 3 of UGC Act, 1956. Over the last nine decades, IIT (ISM) has incorporated important core engineering disciplines and has acquired the status of a full-fledged institute of global standing for imparting higher education in engineering, science and management. The Institute has been conferred the status of Indian Institute of Technology (IIT) on 6th September 2016 by Government of India and has been renamed as Indian Institute of Technology (Indian School of Mines), Dhanbad.

Situated in the heart of the country's prime coking coal belt, 260 km from Kolkata with a campus spread over an area of 218 acres (another 350 acres under acquisition) the fully residential IIT (ISM) has all the facilities of a world-class academic institute. What started as an institution to impart mining, petroleum, mineral and earth sciences education has steadily graduated into a full-fledged technical institution of national and international acclaim offering a host of programmes like B. Tech, M. Tech, Dual degree, M.Sc, M. Sc Tech, M.Phil and MBA and awards Ph.D. and D.Sc degrees.

Since its inception and for more than nine decades, IIT (ISM) has been serving Indian industries in the energy, mining, mineral and petroleum sectors by providing high quality trained and specialized manpower in the form of engineers, scientists and managers to develop and sustain the ever-increasing activities in these industrial sectors at various levels of exploration, exploitation, management and environmental protection. In fact, it may be said with considerable confidence that a majority of the mining and mineral based industries in both the pre- and post- independence period of the nation have been planned and executed by the eminent alumni of IIT (ISM). The institute has also made an indelible mark for itself at the global level by providing quality trained technical manpower to the industry/academia in other contemporary engineering disciplines.

From the beginning, the Institute has had an all-India character and a national flavour. Admission to all undergraduate (UG) including 5 years integrated and dual degree programmes is through the IIT Joint Entrance Examination (IIT-JEE). Likewise, admissions to all its PG programmes including the Ph.D. programme are through either National level entrance tests like GATE, NET and CAT or, through ISM-conducted all-India level admission tests. Its faculty members have a national profile with performance being at par with that of well-established IITs in terms of various key performance parameters such as per faculty research contributions, the number of research publications, revenue outlay on industry sponsored consultancy projects for solving the real-life problems, laboratory testing assignments and the conduct of Executive Development Programmes for different industries.

Both the alumni and faculty of IIT (ISM) have been bestowed with numerous awards and prizes in recognition of their significant contributions to the development of their respective fields of professional endeavour as well as to the overall task of national development. The alumni of IIT (ISM) have also established their credentials at the national as well as international levels. They have occupied key positions of Director General / CMD / CEO of various public and private sector companies and professional / Government organizations both in India and abroad. The alumni have also made noteworthy contributions to academics at the Institute itself. A number of alumni have distinguished themselves with significant achievements having been conferred with distinguished civilian honours namely, Padmavibhushan, Padmabhushan and Padmashree. Some of the faculty members are recipient of civilian honours like Padmashree.

The serene campus comprises academic buildings and 100% residential facilities for students, faculty and staff apart from other infrastructure for a cosmopolitan community. The Institute has links with reputed universities and institutes across the globe and has an alumni base all over the world. The institute today is making foray into the new areas of academic endeavours in tune with the changing times.

The Institute has eighteen departments and 284 faculty members as on 31-03-2017. A list of the Departments is stated below:

Department	Year of Establishment
Department of Applied Geology	1926
Department of Mining Engineering	1926
Department of Humanities and Social Sciences	1926
Department of Applied Geophysics	1957
Department of Petroleum Engineering	1957
Department of Mining Machinery Engineering	1975
Department of Fuel and Mineral Engineering	1976
Department of Management Studies (Erstwhile Industrial Engineering and Management)	1976
Department of Electronics Engineering	1977
Department of Applied Chemistry	1989
Department of Applied Physics	1989

Department	Year of Establishment
Department of Applied Mathematics	1989
Department of Computer Science and Engineering	1997
Department of Mechanical Engineering	1999
Department of Electrical Engineering	2005
Department of Environmental Science and Engineering	2007
Department of Chemical Engineering	2010
Department of Civil Engineering	2013

2. ACADEMIC ACTIVITIES

IIT (ISM) contributes to the trained manpower requirement of several crucial industrial sectors, viz. Mining, Coal, Steel, Power, Petroleum and Natural Gas, Ocean Development, IT, Manufacturing, Environment and Forests, Science and Technology, Service and Social Welfare.

The Institute offers a host of Academic Programmes of considerable relevance such as Engineering in Mining, Petroleum, Mining Machinery, Electrical, Electronics, Computer Science & Engineering, Mechanical, Civil, Mineral, Environmental Science & Engineering, Chemical at under-graduate and post-graduate levels. It also offers higher degrees in Management and Humanities. Additionally, it is acknowledged for International Standards in its areas of core competence, viz. Mining, Oil and Gas, Mineral, Mining Environment, and Mining Equipment.

IIT (ISM) offers thirteen 4-years B.Tech. programmes in various branches of Engineering like Chemical, Civil, Computer Science & Engineering, Electrical, Electronics & Communication, Electronics & Instrumentation, Engineering Physics, Environmental Science & Engineering, Mechanical, Fuel & Mineral, Mining Machinery, Mining and Petroleum. It also offers five 5-years Dual Degree programmes in B.Tech (Mining Engineering) with M.Tech (Mining Engineering), B.Tech (Mining Engineering) with MBA, B.Tech (Mineral Engineering) with M.Tech (Materials Technology), B.Tech (Mineral Engineering) with M.Tech (Mineral Resource Management), B.Tech (Computer Science & Engineering) with M.Tech (Computer Science & Engineering), and B.Tech (Petroleum Engineering) with M.Tech (Petroleum Management). Besides, it also offers 5-years Integrated M.Tech programme in Applied Geology, Applied Geophysics, and Mathematics & Computing. Admission to these B.Tech, Dual Degree, and Integrated courses is done through IIT-JEE (Advanced). Apart from these, the Institute offers 3-years Masters programmes viz., M.Sc. (Tech.) in Applied Geology & Applied Geophysics. Also, 2-years M.Sc. programmes in Chemistry, Physics, and Mathematics & Computing are offered. The institute also offers thirty two 2-year M.Tech Programmes in various disciplines alongwith 3-year slow paced M.Tech programmes through its Industry-Institute Interaction Facility (IIIF) located at Kolkata and Delhi. Admission to all these programmes is through all-India competitive examination, observing reservation norms of Government of India. Admissions to post-graduate courses leading to award of M. Tech., MBA, Executive MBA and Ph.D. degrees are conducted through all-India level examinations and personal interviews.

The student strength of various programmes during the Academic year 2016-17 is presented in the subsequent sections.

2.1 Undergraduate Programmes

Total Student Strength in 4 year B.Tech Programme 2016-17							
Sl. No.	Discipline	Sanctioned Strength	I Sem	III Sem	V Sem	VII Sem	Total
1	Chemical Engineering	40	39	25	29	33	126
2	Civil Engineering	50	50	38	43	40	171
3	Computer Science & Engineering	103	103	177	132	114	526
4	Electrical Engineering	92	91	105	106	87	389
5	Electronics & Communication Engineering	92	91	102	102	87	382
6	Engineering Physics	22	19	7	14	-	40
7	Environmental Science & Engineering	40	37	19	25	30	111
8	Mechanical Engineering	103	101	105	116	118	440
9	Mineral Engineering	45	35	24	23	45	127
10	Mining Machinery Engineering	40	36	26	32	40	134
11	Mining Engineering	92	90	77	91	114	372
12	Petroleum Engineering	65	65	59	92	97	313
13	Electronic Instrumentation Engineering	40	39	22	29	26	116
Total		824	796	786	834	831	3247
Prep			9	-	-	-	-
Gen			394	381	446	457	1678
OBC			223	219	212	202	856
SC			117	131	121	115	484
ST			63	56	55	55	229
PwD			13	5	6	5	29
Male			753	745	784	788	3070
Female			42	44	51	40	177

2.2 Dual Degree Programmes

Total Student Strength in 5 year Dual Degree Programme 2016-17								
Sl. No.	Discipline	Sanctioned Strength	I	III	V	VII	IX	Total
1	5yr. Dual Degree Mineral Engg.+ Mineral Engg.	Discontinued	-	8	10	13	12	43
2	5yr. Dual Degree Mining Engg.+Mining Engg.	Discontinued	-	10	12	14	15	51
3	5yr. Dual Degree Mining with MBA	Discontinued	-	-	-	14	16	30
4	5yr. Dual Degree Petroleum Engg.	Discontinued	-	-	-	16	17	33
5	5yr. Dual Degree Computer Science & Engg.+ Computer Science & Engg	18	18	19	24	17	-	78
6	5yr. Dual Degree Mineral with MBA	Discontinued	-	-	-	2	7	9
Total			18	37	46	76	67	244
Gen			9	18	24	42	33	126
OBC			5	12	10	17	20	64
SC			3	7	9	13	11	43
ST			1	0	3	4	3	11
PwD			1	-	-	-	-	1
Male			18	36	45	74	61	234
Female			0	1	1	2	6	10

2.3 5-year Integrated Programmes

Total Student Strength in 5 year Integrated M.Tech Programme 2016-17								
Sl. No.	Discipline	Sanctioned Strength	I	III	V	VII	IX	Total
1	5yr. Integrated M.Tech Applied Geology	15	14	7	13	13	19	66
2	5yr. Integrated M.Tech Applied Geophysics	15	10	7	9	10	12	48
3	5yr. Integrated M.Tech Math & Computing	40	38	42	39	27	22	168
Total		70	62	56	61	50	53	282
Gen		31	30	34	34	32	161	
OBC		18	17	13	12	11	71	
SC		10	9	10	4	9	42	
ST		3	0	4	0	1	8	
PwD		1	-	-	-	-	1	
Male		58	52	51	46	40	247	
Female		4	4	10	4	13	35	

2.4 Postgraduate Programmes

Total Student Strength in 2 year M.Sc/ 3 year M.Sc Tech Programme 2016-17						
Sl No.	Discipline	Sanctioned Strength	I Sem	III Sem	V Sem	Total
1	M.Sc Applied Physics	44	31	37		112
2	M.Sc Applied Chemistry	62	51	58		171
3	M.Sc Math & Computing	44	42	39		125
4	M.Sc Tech Applied Geology	62	60	61	58	241
5	M.Sc Tech Applied Geophysics	44	43	38	34	159
Total		256	227	233	92	552
		Gen	114	104	47	265
		OBC	62	78	24	164
		SC	33	36	14	83
		ST	18	15	7	40
		PwD	1	-	-	1
		Male	138	153	63	354
		Female	89	80	29	198

Total Student Strength in 2 year MBA Programme 2016-17										
Sl. No.	Sanctioned Strength	Semester	Total	Gen	OBC	SC	ST	PwD	Male	Female
1	62	I	50	32	6	9	3	0	35	15
2		III	33	19	7	3	4	0	24	9
Total			83	51	13	12	7	0	59	24

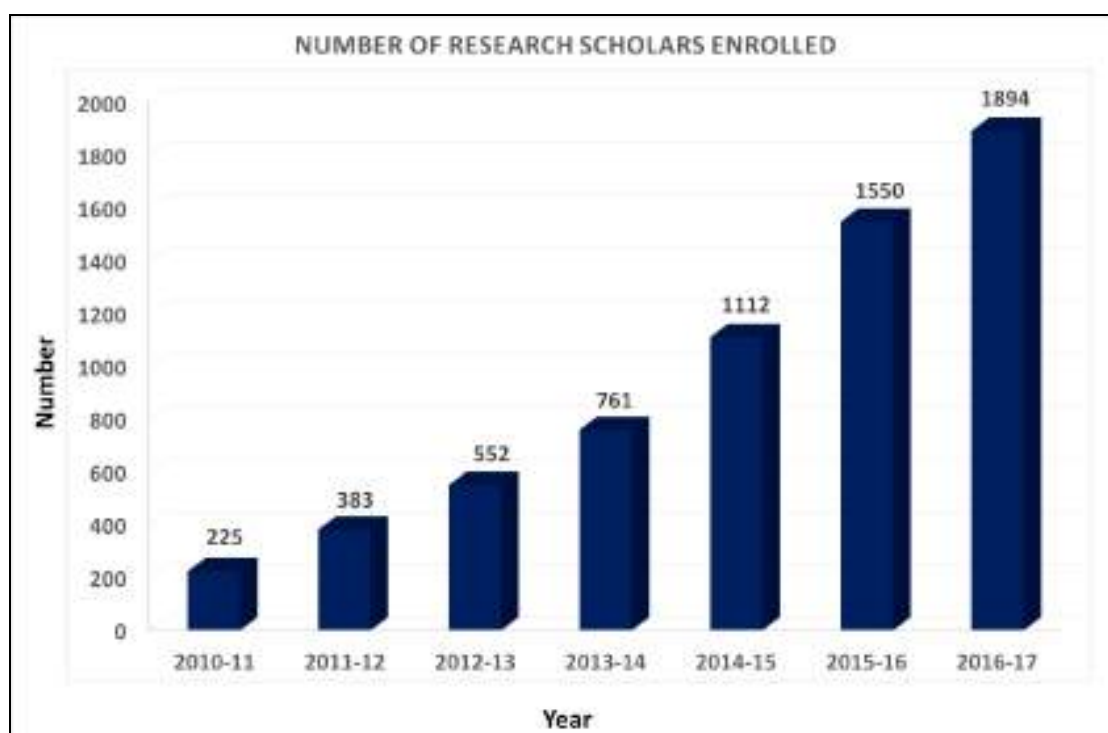
Total Student Strength in 3 year Ex-MBA Programme 2016-17										
Sl. No	Sanctioned Strength	Semester	Total	Gen	OBC	SC	ST	PwD	Male	Female
1	50	I	25	24	1	0	0	0	24	1
2		III	19	12	0	3	2	0	17	0
3		V	16	13	2	1	0	0	15	1
Total			60	51	3	4	2	0	58	2

Total Student Strength in 2-year M.Tech Programme 2016-17							
Sl. No.	Discipline	Sanctioned Strength	Sanctioned Strength Sponsored	I Semester	III Semester	Total	
1	Chemical Engineering	22	3	23	19	42	
2	Computer Science & Engineering	51	6	56	42	98	
3	Computer Science & Engineering (Spl. In Information Security)	51	3	51	45	96	
4	Earthquake Disaster, Hazards and Mitigation	22	4	4	5	9	
5	Electronics & Communication Engineering	80	6	75	55	130	
6	RF & Microwave Engineering	20	3	16	-	16	
7	Engineering Geology	14	3	10	4	14	
8	Environmental Science & Engineering	45	5	48	37	85	
9	Fuel Engineering	16	3	11	8	19	
10	Geomatics	11	3	7	7	14	
11	Industrial Engineering & Management	40	5	43	33	76	
12	Mechanical Engineering (Spl. Design Engineering)	40	5	44	34	78	
13	Mechanical Engineering (Spl. Manufacturing Engineering)	40	4	44	36	80	
14	Mechanical Engineering (Spl. Thermal Engineering)	40	3	42	40	82	
15	Maintenance Engineering & Tribology	40	4	43	34	77	
16	Mineral Engineering	28	5	12	21	33	
17	Mineral Exploration	14	4	9	6	15	
18	Mining Engineering	11	3	13	4	17	
19	Mining Machinery Engineering	30	4	15	22	37	
20	Opencast Mining	15	3	15	5	20	
21	Petroleum Engineering	40	5	41	37	78	
22	Petroleum Exploration	26	4	4	4	8	
23	Power Electronic & Electrical Drives	40	3	43	33	76	
24	Power System Engineering	40	3	43	34	77	
25	Mine Electrical Engineering	15	3	16	12	28	
26	Structural Engineering	22	3	24	15	39	
27	Tunnelling Underground Space Technology	11	3	8	5	13	
Total (GATE+ ISM EE+SPON)		824	103	760	597	1357	
				Gen	342	258	600
				OBC	261	228	489
				SC	114	89	203
				ST	43	22	65
				PwD	5	11	16
				Male	589	486	1075
				Female	171	111	282

Total Student Strength in 3 year M.Tech Programme 2016-17 at Industry Institute Interaction Facility, Kolkata				
Sl.No.	Discipline	I Sem	III Sem	Total
1	Mechanical Engineering	17	16	33
2	Power System Engineering	11	16	27
3	Power Electronic & Electrical Drives	14	12	26
4	Computer Science & Engineering	6	13	19
5	Electronics & Communication Engg.	4	7	11
	Repeater	1	0	1
	Total	53	64	117
	Gen	49	60	109
	OBC	2	3	5
	SC	1	1	2
	ST	1	0	1
	PwD	0	0	0
	Male	48	55	103
	Female	5	9	14
Total Foreign Students Strength in 2016-17: 83				

2.5 Research Programme

IIT (ISM), Dhanbad continues to support increasing level of research activities in regular academic curriculum leading to the award of research degree. The total number of research scholars has increased substantially in the last 6 years, witnessing a growth from 225 in the year 2010 -11 to 1894 in the year 2016-17. This recorded a growth of 742% with respect to the base year.



3. RESEARCH AND DEVELOPMENT

Major experimental facilities have been setup under the Central Research Facility (CRF) and various other laboratories of all departments of the Institute in order to enhance the academic and research potential of students and faculty members. A few major experimental facilities for the inter-disciplinary research are mentioned in the sub-sections below:

3.1 State-of-the-art Laboratories

Some of the laboratories in its areas of core competence are of world class having facilities of International standards:

- Mining Engineering: Rock Mechanics, Rock Excavation, Mine Ventilation, Mine Surveying;
- Petroleum Engineering: Natural Gas Hydrate, Enhanced Oil Recovery, Reservoir Engineering;
- Environmental Science and Engineering: Waste Water Engineering, Water Analysis, Air and Noise Pollution, Solid Waste Treatment, Rain Harvesting;
- Fuel and Mineral Engineering: Mineral Engineering, Coal Characterization, Fluidized Bed Combustion, Heat Treatment, Centrifugal Separation, Pilot Plant Gravity Separation;
- Applied Geology: Coal Petrology, Geotechnical Engineering, Geo-chemical, Geological Museum;
- Applied Geophysics: Magneto-Telluric, Geophysical Instrumentation, Remote Sensing, Seismological Observatory; and
- Mining Machinery Engineering: Power Hydraulics Laboratory, Material Handling laboratory and Drilling Engineering Laboratory;

3.2 Other Important Laboratories

- Instrumentation and Control Laboratory, Digital Signal Processing Laboratory, Fiber-optics Laboratory, Communication Laboratory, VLSI Laboratory, Computer and Simulation Laboratory, Microwave Laboratory, Digital Electronics Laboratory, Basic Electronics Laboratory and Microprocessor and Embedded Systems Laboratory.
- Air Conditioning and Refrigeration Laboratory, IC Engine and Thermal Engineering Laboratory, Heat and Mass Transfer Laboratory, CAD Laboratory, CAM Laboratory
- Power System Laboratory, Electrical Machine Laboratory, Measurement Laboratory and Power Electronics Laboratory.
- XRD Laboratory, SEM Laboratory, Biomedical Optics Laboratory.
- Parallel Processing Laboratory equipped with cluster of processors used for simulation, implementation, execution of parallel algorithms.

- VLSI Laboratory for design, simulation and testing of MOS, MOS gates, MOS circuits using software like NetSim (NI Multi-sim).
- Network Laboratory equipped with LAN trainer kit, QualNet simulator for simulation and testing of LAN protocols, routing protocols for both wired and wireless networks.
- Security Laboratory for simulation, testing of cryptographic algorithms and protocols like PGP, SET, IPSec, etc.
- Digital Electronics and Computer Organization Laboratory (Hardware Laboratory) for performing experiments of digital electronics and computer organization.
- Two programming laboratories for B.Tech and M.Tech students for implementing their assignments using common programming languages, simulators and rapid prototyping tool like MATLAB.
- Central server systems consisting of IBM e-server xSeries 235, X86 based PC, e-Server xSeries 236, HP Xeon Proliant ML350e Gen8, HP Proliant DL 360, HP server TC2120, etc.

3.3 Sponsored R&D Projects

The Institute continued its growth in R&D projects in the year 2016-17 and executed projects worth Rs. 9807.00 lakhs sponsored in the state-of- art research in diverse disciplines of engineering, science and management. The major sponsoring agencies are M/s Coal India Limited; Department of Science & Technology; Defence Research Development Organization; Ministry of Mines; Ministry of Coal; Ministry of Environment; Forest and Climate Change; Ministry of Information & Communication Technology; Indian Space Research Organization; Uranium Corporation of India Limited; M/s Schlumberger and others. The growth rate over the year 2015-2016 is about 23% and overall about 400% from base the year 2010-2011. The execution of such research projects in the last 6 years have led to significant discoveries and development of major technologies, which are given below:

- Discovered the largest ever manganese ore deposit of about 30 Million Tonnes in 2017 with estimated value of Rs. 36,000 crores.
- Development of Self-Advancing Goaf Edge Support (SAGES) for improvement of safety in underground coal mines.
- Development and implementation of technology of mine cooling and air conditioning for improving underground mine environment upto 1 km depth from surface.
- Development of “VENTSYS” software for solving complex sub-surface mine ventilation problems including mine fire.
- LASER guided and gyro-based precision surveying technology for correlation in underground mines and alignment of tunnels.
- Under-water drilling and blasting technology for deepening of existing ports and intake channels for movement of large ships and heavy vessels for docking in the ports.
- Design and development of Caverns for Strategic Petroleum Reserve (SPR).

- Design and implementation of mine ventilation system for reduction in radiation dose in all the seven underground mines of Uranium Corporation of India Ltd., operating upto a depth of 940 m from the surface.
- Design and implementation of particulate Emission Control System for Coke-Oven Plants.
- Enrichment of low grade iron ore fines for use in steel making.
- FRP (Fibre Reinforced Plastic) blades for high capacity mine ventilation fans.
- Development of system for conservation of energy in main mine ventilation fans.
- Design and development of Jigs and Heavy Media Cyclones for treatment of different coals.
- Development of pilot scale technology for underground coal gasification.
- Discovery of Chromite deposits in Sukinda Chromite Belt.
- Electrical Resistivity Imaging and Self-Potential Survey for locating Fracture Zones and Seepage Analysis in coal mines.
- Energy Efficient Hydrostatic transmission system for off road vehicles using two motor summation drive.
- Integrated sensor technology for mobile robotic application in mining industry.
- Development of performance standardization techniques for Surface Continuous Miners for enhancing indigenous surface miner usage in coal and limestone mines in collaboration with L&T.

A list of R&D projects executed during the financial year 2016-17 is provided in Table 3.1.

Table 3.1: R&D Projects executed in the year 2016-17

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
1	DST(56)/2010-2011/280/AGP	To Strengthen the Post-graduate teaching in the area of Petro-physics in the Department of Applied Geophysics	Prof P R Mohanty	Applied Geophysics	120.00	DST
2	UGC(72)/2011-2012/296/AGP	UGC Assistance to the Department of Applied Geophysics, ISM, Dhanbad at the level of CAS-I	Prof P R Mohanty	Applied Geophysics	80.00	UGC
3	UGC(73)/2011-2012/297/ECE	UGC Assistance to the Department of Electronics Engineering, ISM, Dhanbad at the level of DRS-I under SAP	Dr. Mukul Kumar Das Assoc. Prof	Electronics Engineering	28.50	UGC
4	DST(59)/2011-2012/300/AAGL	Distribution and carbon isotopic variations of Benthic Foraminifera from Gas Hydrate Rich Peru Offshore	Dr. Ajay Kumar Bhaumik Asstt. Professor	Applied Geology	17.22	DST
5	DST(60)/2011-2012/301/APH	Stable Isotope, Geochemical and Geochronological studies of Ajjanahalli and parts of gadag gold prospects, chitradurga schist belt, South India	Dr.S. Sarangi Assoc. Prof	Applied Geology	18.25	DST

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
6	DST(61)/2011-2012/303/AGL	Comprehensive Monitoring and Assessment of Drought in India : Implications for process –based understanding of drought propagation	Dr. T H Syed Assoc. Prof.	Applied Geology	17.16	UGC
7	MWR(3)/2011-2012/307/AGL	Artificial Recharge and Rainwater Harvesting Structures within the compounds of ISM, dhanbad	Prof B C Sarkar	Applied Geology	174.85	MWR
8	MWR(3)/2012-2013/308/ESE	Estimation of Aquifer Potential in Jharia Coal Mining Region with Suitable Techniques to improve the recharge	Dr. P K Singh Assoc. Prof.	Environmental Science & Engg	28.54	MWR
9	DAE(2)/2012-2013/309/AM	Pseudo-differential operators and wavelet transform involving fractional fourier transform on function and distribution spaces	Dr. Akhilesh Prasad Assoc. Prof	Applied Mathematics	10.07	DAE
10	DST(65)/2012-2013/310/ME	To strengthen teaching facilities in the area “Geomatics” and “Underground Space Technology”	Prof P P Bahuguna Dr Dheeraj Kumar	Mining Engineering	257.00	DST
11	DST(66)/2012-2013/311/ECE	Modeling characterization and design of substrate Integrated waveguide based dielectric resonator antenna	Dr. Santanu Dwari Asstt Prof	Electronics Engineering	2.82	DST
12	DST(67)/2012-2013/312/AC	Triplesalen-based metal – organic frameworks (mofs) and investigation on their functional applicability	Dr. Hari Pada Nayek	Applied Chemistry	25.40	DST
13	UGC(76)/2012-2013/313/EE	On line condition monitoring of mine winder motor	Prof T K Chatterjee	Electrical Engineering	9.05	UGC
14	CSIR(11)/2012-2013/314/CSE	Design of machine learning techniques for specialized biological online database-mining	Dr. Haider Banka Assoc. Prof	Computer Science & Engineering	16.05	CSIR
15	DST(68)/2012-2013/315/AC	A photochemical approach to surfactant free metal nanoparticles and nanoparticles and nanoclusters and their catalytic applications in organic reactions	Dr. Somnath Yadav Asstt. Prof	Applied Chemistry	27.00	DST
16	UGC(77)/2012-2013/316/CSE	Design and Implementation of group key generation protocols and its applications for secure multicast	Dr. Sachin Tripathi Asstt. Prof	Computer Science & Engineering	10.78	UGC
17	UGC(78)/2012-2013/317/AGL	Facets of strain and vorticity attributes and their intraplate seismotectonic implication: A study in area around Son valley, Central India	Dr. R K Dubey Assoc. Prof	Applied Geology	11.42	UGC
18	UGC(79)/2012-2013/318/ESE	Assessment of ground water level fluctuations with respect to changing patterns of rainfall in jharia coal mining region	Dr. P K Singh Assoc. Prof	Applied Chemistry	9.25	UGC
19	UGC(80)/2012-2013/319/AM	Some aspects of mathematical programming problems involving generalized convex functions	Dr. Anurag Jayswal Asstt. Prof.	Applied Mathematics	9.79	UGC
20	UGC(81)/2012-2013/320/HSS	Poetics of tension: contemporary Indian English women’s poetry	Dr(Mrs.) Rajni Singh Assoc. Prof	Humanities & Social Sciences	8.55	UGC
21	OIL(1)/2012-2013/321/PE	Studies on interfacial properties, wettability alteration and rheological behaviour of nano particle stabilized micro emulsions for its use in enhanced oil recovery	Dr. Ajay Mandal Assoc. Prof	Petroleum Engineering	24.33	OIL
22	MOES(4)/2012-2013/322/AGP	Estimation of crustal stress and development of geo-mechanical earth models for few oil/gas fields of Eastern India.	Dr(Mrs.) Rima Chatterjee Assoc. Prof	Applied Geophysics	22.80	MOES

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
23	UGC(82)/2012-2013/323/APH	Synthesis and characterization of nanocomposite thin films for optoelectronic applications	Dr S K Sharma Assoc. Prof	Applied Physics	6.28	UGC
24	DST(69)/2012-2013/324/ECE	Studies on the effect of gaussian size distribution and inter diffusion on the optical absorption spectra of realistic III –V semi conductor quantum dot systems	Dr. Subindu Kumar Assoc. Prof	Electronics Engineering	4.32	DST
25	DST(70)/2012-2013/325/PE	Carbon dioxide sequestration and simultaneous bio-fuel generation using micro-algae in a photo bio-reactor	Dr. Chandan Guria Assoc. Prof.	Petroleum Engineering	14.48	DST
26	CSIR(12)/2012-2013/326	Development of fracturing fluid for high preswure high temperature (HPHT) reservoirs with minimum formation damage	Dr(Mrs.) Keka Ojha Assoc. Prof	Petroleum Engineering	14.00	CSIR
27	CSIRNW(1)/2012-2013/327/ME	Geological and Technological Controls for underground coal gasification	Prof D C Panigrahi Prof A K Varma/AGL Prof V K Saxena/CE	Mining Engineering	91.60	CSIRNW
28	ISRO(1)/2012-2013/328/AM	Stability and chaos in phto gravitational N-Body problem with Solar Wind Drag	Dr. B S Kushvah Asstt. Prof	Applied Mathematics	16.97	ISRO
29	MOM(1)/2012-2013/329/FME	Beneficiation of low-grade iron ore and tailings by selective flocculation	Prof N R Mandre	Fuel & Mineral Engg	25.82	MOM
30	UGC(82)/2013-2014/ 330/MS	Corporate Entrepreneurship in India : an Explanatory Study	Prof G S Pathak	Management Studies	7.76	UGC
31	UGC(83)/2013-2014/ 331/MS	System Dynamics based decision suport system for Indian micro-finance institutions	Prof Chandan Bhar	Management Studies	6.44	UGC
32	UGC(84)/2013-2014/ 332/MS	Developing an accounting system for small and micro enterprises of Jharkhand	Prof J K Pattanayak	Management Studies	5.38	UGC
33	UGC(85)/2013-2014/ 333/MS	A framework of entrepreneur success among aspiring entrepreneurs of micro enterprises in Jharkhand region	Dr. Niladri Das Asstt. Prof.	Management Studies	6.57	UGC
34	UGC(86)/2013-2014/ 334/PE	Functionalization of nano fly ash for drilling fluid applications	Prof A K Pathak	Petroleum Engineering	13.04	UGC
35	UGC(87)/2013-2014/ 335/PE	Development of Nanoparticle induced chemicals and consolidating loose formation to improve oil production	Dr(Mrs.) Keka Ojha Assoc. Prof	Petroleum Engineering	13.23	UGC
36	UGC(88)/2013-2014/ 336/PE	Selective catalytic oxidation of Karanja Oil : An alternative source of Petrochemical products	Dr. Chandan Guria Assoc. Prof	Petroleum Engineering	14.54	UGC
37	UGC(89)/2013-2014/ 337/AM	Modeling the spatiotemporal complexity of ecoepidemio logical systems: A dynamical system approach.	Prof R K Upadhyay	Applied Mathematics	3.49	UGC
38	UGC(90)/2013-2014/ 338/MS	Testing theory in Process Industry Transformation Systems Using Case Studies	Dr. K S Thyagaraj Asstt. Prof	Management Studies	9.15	UGC
39	DST(71)/2013-2014/ 339/ME&MME	To augment the research facilities in the department of Mechanical Engg, Indian School of Mines, Dhanbad	Prof P S Mukherjee	Mechanical Engineering	50.00	DST
40	UGC(91)/2013-2014/ 340/PE	Experimental and Modeling Studies of Flow of Paraffinic Crude Oil through a Complex Flow Loop	Dr. T K Naiya Asstt. Prof	Petroleum Engineering	13.78	UGC

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
41	UGC(92)/2013-2014/ 341/ECE	Design and Characterization of Compact, High Performance Patch Antennas Loaded with Matamaterials	Dr. Santanu Dwari Asstt. Prof	Electronics Engineering	7.20	UGC
42	UGC(93)/2013-2014/ 342/ECE	Implementation of Spectrum Sensing for Cognitive Radio	Prof Debjani Mitra	Electronics Engineering	9.99	UGC
43	UGC(94)/2013-2014/ 343/ECE	Real-time Implementation of Speech Coders"	Prof S. Bhattacharya	Electronics Engineering	7.58	UGC
44	DST(72)/2013-2014/ 344/ECE	To augment the research facilities in the deptt of Electronics Engineering, ISM, Dhanbad	Dr. Sushrut Das Asstt. Prof.	Electronics Engineering	120.00	DST
45	UGC(95)/2013-2014/ 345/EE	Development of hybrid off-grid power supply system for remote areas	Dr. Nitai Pal Assoc. Prof	Electrical Engineering	7.16	UGC
46	UGC(96)/2013-2014/ 346/EE	Development of a load frequency control system with A PID controller designed through A Frequency Domain Matching Method	Prof S Pan	Electrical Engineering	9.33	UGC
47	UGC(96)/2013-2014/ 347/EE	Simulation and real-time implementation of smart grid	Dr. Vivekanand Mukhopadhyay Asstt. Prof	Electrical Engineering	5.55	UGC
48	DST(73)/2013-2014/ 348/AC	High Performance Multifunctional Modified Guar Gum for Wastewater and Industrial Effluent Treatment	Dr. Sagar Pal Assoc. Prof	Applied Chemistry	24.94	DST
49	DST(74)/2013-2014/ 349/ME&MME	Experimental Investigation on flow induced vibration of elastically mounted bluff bodies	Dr. L A Kumar Swamydash	Mining Machinery Engineering	17.40	DST
50	DST(75)/2013-2014/ 350/PE	Development of Foam based Drilling Fluid for CBM Wells	Dr(Mrs.) Keka Ojha Assoc. Prof	Petroleum Engineering	16.16	DST
51	DST(76)/2013-2014/ 351/AGL	Geodynamics and Structural Evolution of Kachchh Province	Prof S Mohanty	Applied Geology	32.21	DST
52	DST(77)/2013-2014/ 352/AGP	Geodynamic Modeling of the Eastern Subduction Margin of India	Dr. P K Khan Assoc. Prof.	Applied Geophysics	28.44	DST
53	UGC(98)/2013-2014/ 353/Mech	Critical Analysis of Heat distribution in submerged arc welding process	Dr.Somnath Chattopadhyay Assoc. Prof	Mechanical Engineering	10.21	UGC
54	UGC(99)/2013-2014/ 354/Mech	Wear and Friction study of nano composites	Dr. K K Singh Asstt. Prof	Mechanical Engineering	6.85	UGC
55	ICSSR(2)/2013-2014/355/MS	Evaluating the efficacy of financial inclusion in Jharkhand	Dr. Niladri Das Asstt. Prof	Management Studies	3.00	ICSSR
56	DST(78)/2013-2014/ 356/AC	Mesoporous mixed oxide supported gold nanoparticles catalysts for oxidant free dehydrogenation reaction of alcohol	Dr. Biswajit Chowdhury Assoc. Prof	Applied Chemistry	48.96	DST
57	MOES(5)/2013-2014/357/AGP	Seismic Hazard Estimation for Bihar-Jharkhand Using GPS strain, seismicity and seismic study	Dr. P N Singha Roy Assoc. Prof.	Applied Geophysics	139.78	MOES
58	DST(79)/2013-2014/ 358/AGL	Petrological and Tectonic Significance of Archaean Banded Iron Formation (BIF) from parts of the Palghat Couvery Shear Zone (PCSz) of South India	Dr(Ms) Upama Dutta Asstt. Prof	Applied Geology	9.00	DST
59	DST(80)/2013-2014/ 359/APH	Density Functional theory of freezing transitions and properties of inhomogeneous systems	Dr. Pankaj Mishra Asstt. Prof.	Applied Physics	15.46	DST
60	DST(81)/2013-2014/360/MECH	Diagnosis of a vibrating Structural failure through modal analysis	Mr. M L Chandravanshi Asstt. Prof	Mechanical Engineering	17.03	DST
61	DST(82)/2013-2014/ 361/AGL	To augment the research facilities in the Deptt of Applied Geology, ISM, Dhanbad	Prof A K Varma	Applied Geology	238.00	DST
62	CSIR(12)/2013-2014/362/AM	Study of torsional wave in anisotropic and non-homogeneous media	Prof S Gupta	Applied Mathematics	10.92	CSIR

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
63	DST(83)/2013-2014/ 363/CE	Dynamic Instability of Elastic Structural Elements under Deterministic Loading	Dr. Sarat Kumar Panda Asstt. Prof.	Civil Engineering	16.80	DST
64	DST(84)/2013-2014/ 364/AGP	Magnetotelluric Investigations in the Geothermal Province of Bakreshwar, West Bengal	Prof Shalivahan	Applied Geophysics	19.10	DST
65	DST(85)/2013-2014/ 365/AGP	Seismic & Resistivity imaging for detection of subsurface cavities associated with coal working	Prof P R Mohanty	Applied Geophysics	15.62	DST
66	DST(86)/2013-2014/ 366/AM	Generalized convexity and its applications to mathematical programming problems	Dr. Anurag Jayswal Asstt. Prof	Applied Mathematics	11.64	DST
67	IPEM(1)/2013-2014/367/INST	International Project India 4EUII under Erasmus Mundus	Prof V M S R Murthy AD(IR&AA)	Institutional Project	2.47	Erasmus Mundas
68	DST(87)/2013-2014/ 368/Mech	Synthesis and characterization of dental polymeric nano-composite materials	Dr. Ashis Mallick Assoc. Prof	Mechanical Engineering	54.00	DST
69	CSIR(13)/2013-2014/369/PE	Experimental and Modeling Studies of Chemically Enhanced Water Alternating Gas (CEWAG) Injection for Enhanced Oil Recovery	Dr. Ajay Mandal Assoc. Prof	Petroleum Engineering	17.97	CSIR
70	DST(88)/2013-2014/ 370/AC	Synthesis and Functionalization of graphene for controlled dispersion of polymer blends”	Dr. G C Nayak Asstt. Prof.	Applied Chemistry	23.60	DST
71	CSIR(14)/2013-2014/371/AC	Catalytic transformation of Glycerol to Acrolein Over Mesoporous Silica Supported acid Functionalized Transition Metal	Dr. Biswajit Chowdhury Assoc. Prof	Applied Chemistry	16.92	CSIR
72	DST(89)/2013-2014/ 372/AC	To augment the research facilities in the Department of Applied Chemistry	Prof G. Udayabhanu	Applied Chemistry	150.00	DST
73	DST(90)/2013-2014 / 373/APH	Studies on rare-earth ions doped upconversion nano-phosphors as optical sensors	Dr. Kaushal Kumar Asstt. Prof	Applied Physics	23.28	DST
74	DST(91)/2013-2014/ 374/AC	Design of Novel bifunctional gold Ti and Fe-modified zeolite functional materials for the catalytic oxidation of hydrocarbons	Dr. Biswajit Chowdhury Assoc. Prof	Applied Chemistry	35.96	DST
75	DAE(3)/2013-2014/ 375/AGL	Characterization of argillite rocks of Vindhyan and Cuddapah super-groups in assessing their suitability as host rock for deep geological repository for high level radioactive waste disposal	Dr. R K Dubey Assoc. Prof	Applied Geology	28.50	DAE
76	DST(92)/2013-2014/ 376/APH	To Augment the Research Facilities in the Department of Applied Physics, Indian School of Mines, Dhanbad	Prof A K Nirala	Applied Physics	185.00	DST
77	OIL(2)/2013-2014/ 377/PE	Study of Organic Solid Deposition in the Petroleum Reservoir Rock	Dr. Vikas Mahto Assoc. Prof	Petroleum Engg	8.58	OIL
78	DST(93)/2013-2014/ 378/APH	Design and fabrication of metal oxide-based transparent thin film transistors	Dr. R Thangavel Asstt. Prof	Applied Physics	23.28	DST
79	DST(94)/2013-2014/ 379/APH	Development of MgB ₂ based conduction cooled superconducting current leads with high critical current for cryogenic devices	Dr. P M Sarun Asstt. Prof	Applied Physics	26.14	DST
80	CSIR(15)/2013-2014/380/APH	Development of Rare earths doped upconversion phosphor particles for fingerprint detection and sensors	Dr. Kaushal Kumar Asstt. Prof	Applied Physics	12.25	CSIR

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
81	DST(95)/2013-2014/ 381/ESE	Influence of chlorine disinfectant and natural organic matter gradients on disinfection by-product formation in drinking water of some Indian cities	Dr. Brijesh Mishra Asstt. Prof	Environmental Science & Engineering	20.60	DST
82	DST(96)/2013-2014/ 382/APH	Tuning of Schottky barrier height	Dr. Achamma Bobby	Applied Physics	20.60	DST
83	DST(97)/2013-2014/ 383/APH	Development of Hybrid Polymer-Nanoparticle Based White Light Emitting Diodes (WLEDs) and Solar Cells	Dr. Prashant Kumar Sharma Asstt. Prof	Applied Physics	20.04	DST
84	DST(98)/2014-2015/384/AGP	Geotechnical Characterization of Jharia Coal Field Area Using Geophysical Techniques	Dr. S K Pal Asstt Prof	Applied Geophysics	31.59	DST
85	DST(99)/2014-2015/385/APH	Investigation of electron scattering phenomena in biological and environment sensitive molecules	Dr. B K Antony Assoc. Prof	Applied Physics	26.56	DST
86	DAE(4)/2014-2015/386/APH	Synthesis and Assembly of Hybrid Nanostructured Materials for Explosives, Narcotics and Harmful Chemical Detection	Dr. P K Sharma Asstt. Prof	Applied Physics	24.71	DAE
87	DST(100)/2014-2015/387/AC	Biodegradable imprinted nanomaterials: A unique combination of selectivity sensitivity & biocompatibility	Dr(Mrs.) Rashmi Madhuri Asstt. Prof	Applied Chemistry	23.18	DST
88	DST(101)/2014-2015/388/AC	A Study of Polymeric Layer on Efficiency Enhancement of Upconversion Nanoparticles for Biomedical Applications	Dr. Sumanta Kumar Sahu Asstt Prof	Applied Chemistry	24.80	DST
89	DST(102)/2014-2015/389/FME	Effect of feed characteristics on the performance of dense medium cyclones treating metallurgical coal	Mr. Anand Anupam Asstt. Prof	Fuel & Mineral Engineering	21.34	DST
90	DST(103)/2014-2015/390/APH	Development of multicolour long lasting phosphors based on colour conversion process"	Prof Jairam Manam	Applied Physics	46.19	DST
91	DST(104)/2014-2015/391/ME	Stability analysis of roof rock and establishing safe hard cover for coal exploitation below ground during conversion of opencast mine to underground mine	Dr. A K Verma Asstt. Prof	Mining Engineering	8.76	DST
92	DST(105)/2014-2015/392/AC	Kinetics and Mechanistic Approach towards Water Splitting by Ruthenium Complexes having Polypyridyl Ligands	Dr. Sumanta Kumar Padhi Asstt Prof	Applied Chemistry	25.00	DST
93	DST(106)/2014-2015/393/AM(FIST)	To Augment the Research Facilities in the Department of Applied Mathematics, Indian School of Mines, Dhanbad	Dr. S P Tiwari Assoc. Prof Dr. B S Kushwaha, Asstt Prof	Applied Mathematics	37.50	DST
94	DST(107)/2014-2015/394/AC	Catalytic partial oxidation of glycerol to acrylic acid over polymer-bound immobilised metal complexes under mild condition	Dr. Chanchal Haldar Asstt. Prof	Applied Chemistry	24.40	DST
95	DST(108)/2014-2015/395/MS	Developing a framework of critical indicators for entrepreneurial success of Science and Technology (S&T) graduates in Eastern India	Dr. Niladri Das Asstt. Prof	Management Studies	10.72	DST
96	MoEs(6)/2014-2015/396/ESE	Phosphorus fractionation in surface sediments: An Implication in Restoration and Conservation of Govind Balabah Pant Sagar, MP	Dr. Anshumali Asstt Prof	Environmental Science & Engg	32.46	MoES
97	UGC(100)/2014-2015/397/ME	UGC-BSR Research Start-Up-Grant for newly recruited faculty at Assistant Professors level in Science	Dr. A K Verma Asstt. Prof	Mining Engineering	6.00	UGC

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
98	DST(109)/2014-2015/398/AC	Synthesis of polynuclear metal complexes from metalloligands of group 14 elements and their catalytic activities	Dr. H P Nayek Asstt. Prof	Applied Chemistry	52.80	DST
99	IPEM(2)/2014-2015/399/INST	International Project AREAS+ under Erasmus Mundus”	Dr. Biswajit Chowdhury Assoc. Prof	Applied Chemistry	2.40	Partnership Agreement
100	ISRO(2)/2014-2015/400/ECE	Photonic Microwave Arbitrary Waveform Generation with adjustable Chirp parameter based on remote sensing applications	Dr. S K Raghuvanshi Asstt Prof	Electronics Engg	14.62	ISRO
101	DRDO(1)/2014-2015/401/ECE	Studies on Multi-Element Multi-Segment Dielectric Resonator Antenna for Wireless Application	Dr. R K Gangwar Asstt. Prof	Electronics Engg	17.00	DRDO
102	MHRD(CoE)/RE/2014-2015/402/INST	Establishment of Centre of Excellence for Training and Research in Frontier Areas of Science and Technology (FAST) in Renewable Energy	Dr. Mukul Das Dr. R Thangavel Dr. Biswajit Chowdhury Dr. Jitendra Kumar DR. Tanmoy Maity	ECE, APH, AC, MME	400.00	MHRD For Establishing Centre of Excellence in Renewable Energy
103	DST(110)/2014-2015/403/PE (FIST)	To Augment the Research Facilities in the Department of Petroleum Engineering, Indian School of Mines, Dhanbad	Dr.(Mrs) Keka Ojha Assoc. Prof	Petroleum Engg	160.00	DST (FIST)
104	DST(111)/2014-2015/404/AGL	“Landslide risk analysis of road cut hill slopes near Sonapur, Meghalaya, India”	Dr. Kripamoy Sarkar Asstt Prof	Applied Geology	22.63	DST
105	DST(112)/2014-2015/405/MECH	Active Modal Vibration Control of Composite Structure”	Dr. Prashanta Kumar Mahato Asstt Prof	Mechanical Engg	27.10	DST
106	CSIR(16)/2014-2015/406/FME	Characterization and Beneficiation Studies on Low Grade Graphites from the state of Arunachal Pradesh,	Prof Nikkam Suresh	Fuel & Mineral Engineering	14.72	CSIR
107	MoES(6)/2014-2015/407/AGL	Characterization, quantification and genesis of gas hydrate in Krishna-Godavari Basin, Bay of Bengal using benthic foraminiferal, geochemical and geophysical studies”	Dr. A K Bhaumik Asstt. Prof	Applied Geology	64.92	MoES
108	ICPR(1)/2014-2015/408/HSS	Traversing the Territory of Comparative Philosophy	Dr. Gyan Prakash/HSS	ICPR	2.00	ICPR
109	DST(113)/2014-2015/409/AGL	“Geochemistry and Petrogenesis of different granitoid suites associated with the Tsundupalle Greenstone Belt, Eastern Dharwar Craton (EDC), South India: Implications for crustal evolution during Archaean”	Dr Jinia Nandi, Applied Geology	DST	31.70	DST
110	CIL(3)/2014-2015/410/AGP	An integrated geo-physical approach for tectonic study in Moher main coal basin of Singrauli coalfield using 3D inverse modeling of Gravity, Magnetic and AMT data”	Dr. U K Singh, AGP	CIL	289.70	CIL
111	UGC(101)/2015-2016/411/PE	UGC Assistance under Special Assistance Programme (SAP) – Review of the programme in the Department of Petroleum Engineering, ISM for upgradation/continuation from DRS-II to DRS-III	Prof S Laik	Petroleum Engineering	106.00	UGC
112	UGC(102)/2015-2016/412/APH	UGC Assistance under Special Assistance Programme (SAP) – Review of the programme for upgradation from DRS-I to DRS-II	Prof A K Nirala	Applied Physics	125.70	UGC

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
113	UGC(103)/2015-2016/413/FME	UGC Assistance under Special Assistance Programme (SAP) – Review of the programme in the Department of Fuel & Mineral Engineering for upgradation from DRS-II to DRS-III	Prof R Venugopal	Fuel & Mineral Engg	150.00	UGC
114	ICSSR(3)/2015-2016/414/MS	Green Consumption Behaviour of Urban Consumers in Rajasthan – An Empirical Study on FMCG Products	Dr. Bibhas Chandra Assistant Professor	Management Studies	3.18	ICSSR
115	DST(114)/2015-2016/415/AC	Novel modified biopolymer based hydrogels and nanogels: synthesis, characterization and application	Dr. Sagar Pal Associate Professor	Applied Chemistry	35.26	DST
116	MoES(7)/2015-2016/416/AGP	Delineation of blind faults and its geometry around Kishanganj vis Bayesian neural network inversion of gravity data	Dr. Saumen Maiti Assistant Professor	Applied Geophysics	38.56	MoES
117	MOM(2)/2015-2016/417/ME	Development of Low Density Emulsion Explosives for Energy Efficient Blasting in Environmentally Sensitive Areas	Prof A K Mishra	Mining Engineering	29.13	MoM
118	DST(115)/2015-2016/418/AC	Metal Free Oxidative C-N Bond Formation: Synthesis of N-Heterocycles	Dr Soumitra Maity Assistant Professor	Applied Chemistry	35.00	DST
119	MCIT(3)/2015-2016/419/CSE	Information Security Education and Awareness (ISEA) Phase-II	Dr. Sachin Tripathi Assistant Professor	Computer Science & Engineering	148.10	MCIT
120	DST(116)/2015-2016/420/CSE	Design of Reliable and Energy Efficient Transport Layer Protocols for Ad-hoc and Sensor Network	Dr. Sachin Tripathi Assistant Professor	Computer Science & Engineering	33.13	DST
121	DST(117)/2015-2016/421/APH	Atomistic simulations of boron nanoclusters for hydrogen storage and electro-optical applications	Dr. Sridhar Sahu Assistant Professor	Applied Physics	25.23	DST
122	DST(118)/2015-2016/422/AC	Vanadium and Copper Catalyst Grafted on Graphene Oxide For Oxidation of Hydrocarbons and Alcohols	Dr. Chanchal Halder Assistant Professor	Applied Chemistry	52.92	DST
123	DST(119)/2015-2016/423/AGL	Integrated Geological-Geotechnical approach for prediction and mitigation measures of landslides along road-cut slopes of area around Gangtok-Mangan, Teesta Valley, Sikkim	Dr. R K Dubey Associate Professor	Applied Geology	22.18	DST
124	MoES(8)/2015-2016/424/AGL	Origin and evolution of crust in the NE part of the Singhbhum craton: constraints from geochemistry and geochronology of granitoids”	Dr. Sukanta Dey Associate Professor	Ministry of Earth Sciences	24.89	MoES
125	MoES(9)/2015-2016/425/ME	Rockfall hazard assessment along the Road Cut Slopes on NH-44A between Aizawl city and Lengpui Airport, Aizawl, Mizoram, India	Dr. A K Verma Asstt Professor/ME & Dr. K Sarkar Asstt Professor/AGL	Ministry of Earth Sciences	34.18	MoES
126	MoES(10)/2015-2016/426/AGL	Unified Geological-Morphometrical-Geotechnical Study for Prediction and Mitigation of Landslides along Road-cut Hills of Rishikesh-Joshimath route, Kumaon Himalaya	Dr. R K Dubey Associate Professor	Applied Geology	38.00	MoES
127	DST(120)/15-16/427/AM	“Study of various graph domination problems on restricted graph classes”	Dr. Dinabandhu Pradhan Asstt. Professor	Applied Mathematics	17.67	DST

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
128	OIL(3)/2015-2016/428/PE	Synthesis and extraction of surfactants from natural resources and their characterization for application in enhanced oil recovery	Dr Ajay Mandal, Associate Professor	Petroleum Engineering	22.61	OIL
129	DST(121)/2015-2016/429/ESE	Geochemical investigation of Heavy metals and REEs in Water and Surface Sediments: An Implication in Restoration and Conservation of Ken and Betwa Rivers	Dr. Anshumali, Assistant Professor	Environmental Science & Engg.	24.50	DST
130	CSIR(17)/2015-2016/430/AM	A PAIR OF FRACTIONAL POWERS OF BESSEL WAVELET TRANSFORMS AND PSEUDO-DIFFERENTIAL OPERATORS	Dr. Akhilesh Prasad, Associate Professor	Applied Mathematics	15.00	CSIR
131	DRDO(2)/2015-2016/431/CSE	Energy Efficient Intruder Detection Schemes for WSN using Learning Based Techniques	Dr. Chiranjeev Kumar, Associate Professor	Computer Science & Engg	28.52	DRDO
132	DST(122)/2015-2016/432/APH	Preparation and characterization of lanthanides doped materials for multifunctional applications	Dr. Vineet Kumar Rai, Assoc. Professor	Applied Physics	25.35	DST
133	DST(123)/2015-2016/432(A)/ECE	Design and Development of Circularly Polarized Dielectric Resonator Antenna for Wireless Application	Dr. R K Gangwar, Assistant Professor	Electronics Engineering	25.45	DST
134	DST(124)/2015-2016/433/APH	Design and Fabrication of Ultrasensitive Optical Biosensors based on Surface Plasmon Models in Gold Nanostructures	Dr. M R Singh, Assistant Professor	Applied Physics	21.80	DST
135	ICHR(1)/2015-2016/434/HSS	An Introductory Study to the History and Evolution of Comic Art in India	Dr. Aju Aravind, Assistant Professor	Humanities & Social Sciences	4.00	ICHR
136	HUDCO(1)/2015-2016/436/CE	Investigation on Mechanical and Durability Properties of Self Compacted Concrete Prepared with Recycle Coarse Aggregate from C&D Waste	Dr. S K Panda, Assistant Professor	Civil Engineering	16.41	HUDCO
137	DRDO(3)/2015-2016/437/Mech Engg.	Design and Fabrication of an Experimental Facility for Measurement of Acoustic Impedance Afterburner Screech Liner	Dr. Rabindra Nath Hota, Associate Professor	Mechanical Engg	99.50	DRDO
138	MHRD/(FDC)/2015-2016/438/INST	“(PMMMNMTT) Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching	Prof. A.K.Nirala, Dept. of Applied Physics Prof. P C Pal, Dept. of App. Math, Dr. Mahendra Yadav, Dept. of Applied Chemistry	Applied Physics	200.69	MHRD
139	UGC(104)/2015-2016/439/ME	UGC Assistance under Special Assistance Programme (SAP) – Review of the programme in the Department of Mining Engineering, Indian School of Mines for upgradation/continuation from CAS III to CAS IV	Prof D.C.Panigrahi	Deptt of Mining Engineering	300.00	UGC
140	DBT(1)/2015-2016/440/FME	HyWATER – Treatment of Contaminated drinking water using a hybrid low-cost process	Dr. Barun Kumar Nandi, Assistant Professor	FME	33.88	DBT
141	MOC(1)/2015-2016/441/ME	Techno-economic Evaluation and Performance Behaviour of Self Advancing (Mobile) Goaf Edge Supports (SAGES) (Phase – II)	Prof. U.K.Singh	Mining Engineering	33.04	MOC

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
142	DST(125)/2015-2016/442/ECE	Special Lecture Tour Programme (Exploratory Exchange)	Dr. Subindu Kumar, Asstt. Professor	ECE	1.88	DST
143	MoEF(1)2015-16/443/ESE	Remediation of Ground Water Contaminated with Hexavalent Chromium in Sukhina Valley, Odisha, using Nano Zero Valent Iron (nZVI) Technology	Dr. Alok Sinha, Asstt. Professor/ESE	ESE	24.80	MoEF
144	DRDO(4)/2015-16/444/ Mech. Engg.	Study, Investigation and Development of Machining Parameters of FRP Composites using a Laser to Maintain Better Surface Integrity	Dr. A.K.Das, Asstt. Professor	Mech. Engineering	9.7	DRDO
145	DST(126)/2015-16/445/ ME	Training cum field workshop for Numerical Simulation of Landslide Studies	Dr. A.K.Verma, Asstt. Professor	Mining Engineering	3.65	DST
146	DST/SERB(127)/2015 – 16/446/MME	Design and Development of Series-Parallel Hydraulic Hybrid Energy Efficient Excavator having Displacement Controlled Actuators	Dr. Jayanta Das, Asstt. Professor	MME	22.20	DST
147	DST(128)/2015-16/447/ AGL	Geospatial Fusion of Parameters Controlling Urogenic Gold Mineralization and Delineation of Gold Prospective Zones within Chandil Formation North Singhbhum & Mobile belt, Eastern Indian Craton – A Regional Scale Analytical Approach Through the Integrated Applications of GIS, SPS and Remote Sensing Technology	Dr. Sahendra Singh, Asstt. Professor	AGL	38.50	DST
148	DST/SERB(129)/2015-16/448/Chem. Engg.	Development of an Efficient Pd-Cu Bimetallic Catalyst for the Catalytic CO ₂ Hydrogenation for Methanol Production	Dr. Siddhartha Sengupta, Asstt. Professor	Chemical Engg.	22.15	DST
149	MOC(2)/2015-2016/449/Civil Engg.	Constructing Structure on Backfilled Opencast Coal Mines: An Attempt to Suggest Viable Methodologies	Prof. S.C.Dutta,	Department of CE	304.12	MOC
150	MOM(16)2015-16/450/ME	Assessment and Prediction of Land Surface Deformation due to Underground Metal Mining in Northern Aravali Range of Hills using Microwave Remote Sensing Data sets and Ground Based Observations	Prof. Dheeraj Kumar Md. (Dr) Soyeb Alam	Department of ME	45.00	MoM
151	ICPR/2015-16/451/HSS	Ethical Leadership: A Study on Macintyre and LeVins	Dr. Sarita Kar, Asstt. Professor	Department of HSS	3.00	ICPR
152	DST/SERB(130)/2015-16/452/AGL	Stable and Radiogenic Isotope Geochemical, Geo-chronological, and Fluid Inclusion Studies of Granite – Gneiss hosted Gold Deposits of the Eastern Dharwar Craton at Chigarguntha (South KGF) and Jonnagiri, Andhra Pradesh India	Dr. S. Sarangi, Associate Professor	Department of AGL	50.82	DST
153	MDWS/2015-16/453/ESE	Control of Disinfection By-products Formation in Drinking Water Supplies of India	Dr. S. K. Gupta, Associate Professor	Department of ESE	25.20	MDWS
154	DST(SERB)(131)/2015-16/454/MECH. ENGG	Investigation on Hydrokinetic Turbine Performance Corresponds Variable Rotor Shape and Surface Velocity using Different Augmentation Techniques	Dr. Shibayan Sarkar, Asstt. Professor	Department of MECH. ENGG	20.62	DST

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
155	DST(SERB)(132)/2015-16/455/MECH. ENGG	Early Detection of Bearing Fault and Fatigue Crack in a Rotor System	Dr. Sachin Kr. Singh, Asstt. Professor	Department of MECH. ENGG.	31.33	DST
156	MoES(11)/2015-16/456/ AGP	Investigation on Crustal Stress, Seismic Velocity and Porosity in Rock and Deformation Modelling	Prof. Rima Chatterjee,	Department of AGP	20.01	MoES
157	DST(SERB)(133)/2015-16/457/AGL	Geochemical Characterization of Malangtoli Volcanics and Emplacement Mechanism over Singhbhum Granite in and around Kendujhar District, Odisha	Dr. Pranab Das, Asstt. Professor	Department of AGL	25.73	DST
158	DST(SERB)(134)/2015-16/458/Electrical Engg.	Sensorless Speed Control of Brushless Doubly Fed Reluctance Motor Drive Utilizing Model Reference Adaptive Controller	Dr. Sukanta Das, Asstt. Professor	Department of Electrical Engg.	30.84	DST
159	DST(SERB)(135)/2015-16/459/CE.	Experimental Investigation on Characteristic Behaviour of Two Nearby Embedded Shallow Foundations	Dr. Lohitkumar Nainegali, Asstt. Professor	Department of CE	18.00	DST
160	DST(SERB)(136)/2015-16/460/CE	Low-cost Sustainable Approach of Improving lateral load resisting capacity of unreinforced masonry structures	Dr. Sanket Nayak, Asstt. Professor	Department of CE	23.76	DST
161	CIL (4)/2015-16/461/ Mining Engg.	Development of guideline for prevention and mitigation of explosion hazard by risk assessment and determination of explosibility of Indian coal incorporating risk based mine emergency evacuation and re-entry protocol – CIMFR, Dhanbad, ISM, Dhanbad and CIL, Kolkata.	Prof. D. C. Panigrahi	Department of Mining Engg.	833.57	CIL
162	DST(SERB)(137)/2016-17/462/ESE	Arsenic Removal from Groundwater using Nano-adsorbents	Dr. S. R. Samadder, Asstt. Professor	Dept. of Environmental Sc. & Engg.	5.50	DST
163	DST/(138)2016-17/463/ME	Landslide Stability Analysis in Subzero Environment in and around Rohtang Pass or Kasang Hydroelectric Project of Himachal Pradesh, India.	Dr. A. K. Verma, Asstt. Professor	Dept. of Mining Engg.	49.73	DST
164	DRDO/(5)/2016-17/464/ CSE	Node Mobility Techniques for Tactical IP Networks	Dr. Chiranjeev Kumar, Assoc. Professor	Dept. of CSE	9.00	DRDO
165	Tata Steel & ISM(MoU)/2016-17/ 465/Instt.	Detailed Characterization and Analysis of Commercial Flocculants for Flocculation of Iron Ore	Dr. Sagar Pal, Assoc. Professor	Dept. of Applied Physics	8.00	Tata Steel & ISM
166	DST(SERB)(139)/2016-2017/466/CE	Coupled Three Dimensional Non-linear Finite Element Analysis of Geocell Reinforced Railway Tracks with Mine Waste	Sowmiya Chawla, Asstt. Professor	Dept. of Civil Engineering	24.68	DST (SERB)
167	CSIR(18)/2016-2017/ 467/APH	Upconverting Luminescent Materials in Display Devices and Security Purposes	Dr. Vineet Kumar Rai, Associate Professor	Dept. of Applied Physics.	20.36	CSIR
168	CSIR(19)/2016-2017/ 468/App. Math	Mathematical Study of Solute Transport in Porous Formations	Dr. M. K. Singh, Associate Professor	Dept. of Applied Mathematics	16.79	CSIR
169	CSIR(20)/2016-2017/ 469/App. Math	Numerical Computation of Pressure Generation Mechanism in Tilted Pad Slider Bearing Lubrication	Dr. P.S.Rao, Asstt. Professor	Dept. of Applied Mathematics	16.96	CSIR

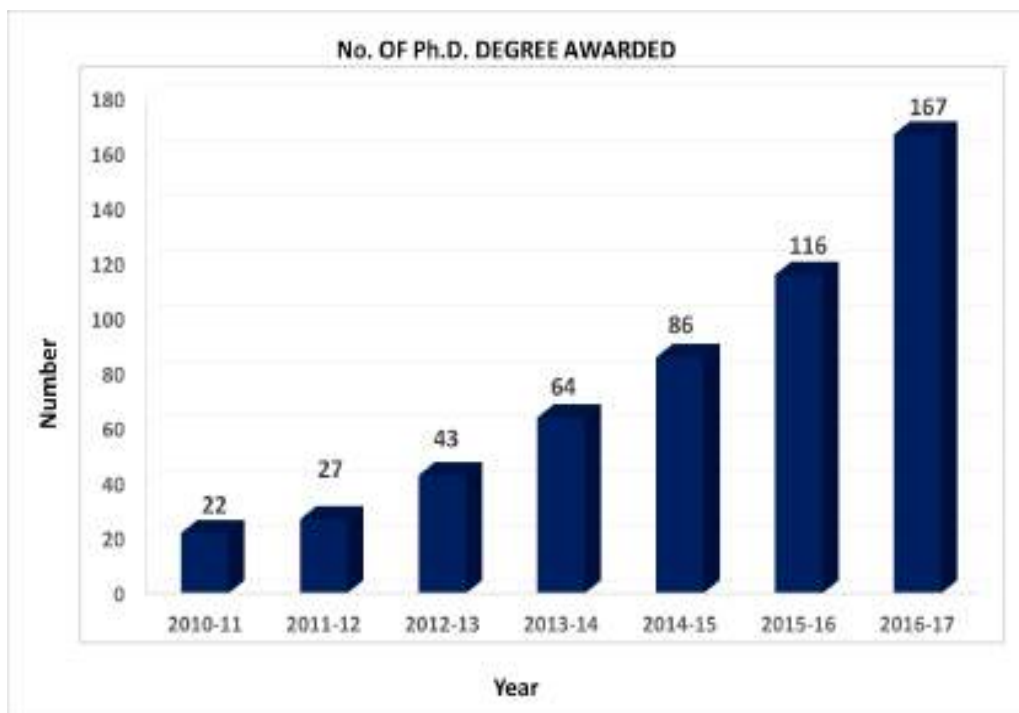
S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
170	CSIR(21)/2016-2017/ 470/EE	Development of New Control Methodology to Improve the Fault Ride Through Capability of Doubly Fed Induction Generator (DFIG)	Dr. Kalyan Chatterjee, Associate Professor	Dept of EE	21.76	CSIR
171	DST(FIST)/(140)/2016-2017/ 471/ESE	To Augment the Post-graduate Teaching and Research Facilities in the Department of Environmental Science & Engineering, Indian School of Mines, Dhanbad	Dr. Chiranjib Banerjee, Inspire Faculty	Dept. of ESE	144.00	DST(FIST)
172	MHRD(Namami Gange)/2016-2017/ 472/ISM	Prime Minister's Namami Gange – for conducting the survey to stop open defecation free status, complete treatment of solid and liquid waste, total sanitation and having clean/green banks of Ganga	Prof. I. M. Mishra	Dept. of Chemical Engg	5.0	MHRD (Namami Gange)
173	DAE(5)/2016-2017/ 473/ME	Meter Scale Granite Block-Smectite Clay Barriers Experiment and associated TMH modeling for Indian	Dr. A. K. Verma, Assistant Professor	Dept. of Mining Engineering	30.88	DAE
174	CIL(5)/2016-2017 / 474/CHEMICAL ENGG	Studies on the use of Coal and Petcoke as Fuel in the Cement Industry in India	Prof. I. M. Mishra	Dept. of Chemical Engineering	431.28	CIL
175	DST(SERB)/(141)/2016-2017/475/AC	PHOTO – CC: Photocatalytic Construction of C-C and C-X(X=N, O, S, etc) Bonds via Visible Light Mediated Cross-Coupling Reactions – Synthesis of N-Heterocycles	Dr. Soumitra Maity, Asstt. Professor	Dept. of Applied Chemistry	33.00	DST (SERB)
176	ICMR/2016-2017/476/ESE	ALGAL Biomass Harvesting Through Biopolymeric Approach	Dr. Sheeja Jagadevan, Asstt. Professor & Dr. Chiranjib Banerjee, Inspire Faculty,	Dept. of ESE	3.38	ICMR
177	DST(SERB) / (142) /2016-2017/477 /PE	Studies on Characteristics and Dissociation Behavior of Natural Gas Hydrate in Sediments under Subsurface Mimic Conditions	Dr. Ajay Mandal, Associate Professor,	Dept. of PE	44.17	DST (SERB)
178	DST(SERB)/(143)/2016-2017/478/AC	Development of a Point-of-Care Assay System for Qualitative and Quantitative Analysis of Food Allergens using Artificial Antibodies	Dr. Rashmi Madhuri, Asstt. Professor, & Dr. Prashant Kumar Sharma, Asstt. Professor,	Dept. of AC Dept. of APH	45.49	DST (SERB)
179	CIL(6)/2016-2017/479/ME	Multiple Layer Trial Blasing for Better Recovery with less Diluted Coal	Prof. A. K. Mishra	Dept. of Mining Engineering	431.24	CIL
180	DST(SERB)/(144)/2016-2017/480/MME	Development of an Intelligent Helmet for Safety and Communication of Underground Miners”	Dr. Tanmoy Maity, Associate Professor,	Dept. of MME	33.03	DST
181	DST(SERB)/(145)/2016 - 2017/481/AGL(Tra vel)	35 th International Geological Congress	Prof. S. Mohanty	Dept. of AGL	1.34	DST
182	DST(SERB)/(146)/2016-2017/482/AM	Linear and Cyclic Codes over Finite Local Rings	Dr. Pramod Kumar Kewat, Assistant Professor	Dept. of Applied Math	15.02	DST
183	DST(SERB)/(147)/2016-2017/483/Mech. Engg	On the Reductions of aerofoil-turbulence Noise by wavy Edges	Dr. S. Narayanan, Assistant Professor	Dept. of Mechanical Engg.	33.44	DST

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
184	DST(SERB)/(148)/2016-2017/484/Mech. Engg	Optimal Design of thin Walled Beam/Plate Structures for Maximum Elasto-plastic Buckling Load	Dr. Prasun Jana, Assistant Professor	Dept. of Mechanical Engg.	20.08	DST
185	DST(SERB)/(149)/2016-2017/485/AM	Study of Surface Wave Propagation in Elastic Solids Involving Piezoelectric Material	Dr. Sanjeev A. Sahu, Assistant Professor	Dept. of Applied Mathematics	15.02	DST
186	DST/INSPIRE/(150)/2016-2017/486/AGP	Lithosphere Structure and Rheological Characteristics of the Eastern Indian Shield: Implications on Craton-mobile Belt Interactions and Crustal Growth/ Recycle Processes	Dr. Srinivasa Rao Gangumalla Assistant Professor,	Dept. of AGP	35.00	DST (INSPIRE)
187	DST(SERB)/(151)/2016-2017/487/APH	Leve-free Cancer Detection Using White Light Quantitative Phase Microscopy (QPM)	Dr. B. Bhaduri, Assistant Professor	Dept. of APH	49.41	DST
188	DST (SERB)/(152)/2016-2017/488/Mech	Impact of Emulsified drop on a Heated Substrate	Dr. Deepak Kumar Mandal , Assistant Professor	Dept. of Mechanical Engg.	29.48	DST
189	DST(SERB)/(153)/2016-2017/489/ME	Radon Exhalation and its Control in Indian Underground Uranium Mines	Dr. Patitapaban Sahu, Assistant Professor	Dept. of ME	46.21	DST
190	DST(SERB)/(154)/2016-2017/490/Mechanical Engg.	Investigation of Heat Transfer Enhancement in some Novel Geometries using Nanofluids for Electronic Cooling Application	Dr. Pawan Kr. Singh, Assistant Professor	Dept. of Mechanical Engg.	33.22	DST
191	DRDO(6)/2016-2017/491/AC	Development of Hybrid Nanocomposite Based Wide Band RADAR Absorbing Materials (1-12 GHz)	Dr. G. C. Nayak, Assistant Professor,	Dept. of Applied Chemistry	32.90	DRDO
192	CPRI/2016-2017/492/ME	Development of a Selection Methodology for Roadheader and Tunnel Boring Machine in Different Geological Conditions for Rapid Tunnelling	Prof. V. M. S. R. Murthy	Dept. of Mining Engineering	117.00	CPRI
193	ISRO(3)/2016-2017/493/AGP	Integrated Remote Sensing and Geophysical Approach for Mineral Mapping over Parts of Dharwar Craton	Dr. Sanjit Kumar Pal, Assistant Professor	Dept. of AGP	30.23	ISRO
194	DRDO (7)/2016-2017/494/MECH. ENGG.	Establishment of Hybrid Mirco Machining Technology using Micro Electro-chemical Machining and Micro Electro-discharge machining processes for Aerospace Materials	Dr. Alok Kumar Das, Assistant Professor	Dept. of Mechanical Engg.	59.28	DRDO
195	UGC-DAE/2016-2017/495/APH	Development of hole transport materials for application of perovskite solar cells	Dr. R. Thangavel, Assistant Professor	Dept. of Applied Physics	0.45	UGC-DAE
196	DST(SERB)/(155)/2016-2017/496/AC	Medicinal Aspects of Supramolecular Chemistry: Anion Recognition	Dr. Swapan Dey, Assistant Professor Dept. of Applied Chemistry	Dept. of Applied Chemistry	36.69	DST (SERB)
197	DST(SERB)/(156)/2016-2017/497/CE	Assessment of Groundwater Quality and Zonation of Kadiri Watershed in the Drought Prone Areas of Anantapur Region	Dr. Srinivas Pasupuleti	Assistant Professor, Dept. of Civil Engineering	28.76	DST (SERB)
198	DST(SERB)/(157)/2016-2017/498/CSE	Design and Implementation of Multiple Strategies to Identity Handwritten Forgery Activities in Legal Documents	Dr. Soumen Bag, Assistant Professor,	Dept. of CSE	13.00	DST (SERB)

S. No.	Project No.	Title of the Project	Coordinator(s)	Deptt.	Project Cost (Rs. in lakhs)	Spon. Agency
199	DST(SERB)/(158)/2016-2017/499/ECE	Design and Development of Multiband Circularly Polarized Compact Metamaterial Antenna for Mobile/WLAN/WiMAX Applications	Dr. Raghvendra Kr. Chaudhary, Assistant Professor,	Dept. of ECE	51.26	DST (SERB)
200	ISRO/(4)/2016-2017/500/AGL	Estimation of Surface Deformation in Response to Fluid Extraction and Subsurface Coal Fires Using SAR Interferometric Techniques	Dr. Tajdarul H. Syed, Associate Professor	Dept. of AGL	22.70	ISRO
201	DST(SERB)/(159)/2016-2017/501/AM	Study of Non-linear Advection-Dispersion Equation and Their Applications	Dr. M. K. Singh, Associate Professor	Dept. of AM	23.45	DST (SERB)
202	ISRO/(5)/2016-2017/502/ME	Thermal Anomaly Reduction and Monitoring of Coal Fire in the Gondwana Coal Fields and Coal Fire Induced Land Subsidence Using Remote Sensing and Ground Based Techniques	Dr. Dheeraj Kumar, Associate Professor	Dept. of Mining Engineering	19.39	ISRO
203	DST(SERB)/(160)/2016-2017/503/ECE	Investigation on Ultra-thin Conformal Metamaterial Absorbers for Multiband Applications	Dr. Raghvendra Kr. Chaudhary, Assistant Professor,	Dept. of ECE	46.56	DST(SER B)
204	DST(SERB)/(161)/2016-2017/504/PE	Extraction of Pour Point Depressants from Fruits and Its use for Crude Oil Transportation	Dr. Tarun Kumar Naiya, Assistant Professor	Dept. of PE	33.39	DST (SERB)
205	DST(SERB)/(162)/2016-2017/505/ECE	Optical Sensors Based Traffic Weighbridge	Prof. Vishnu Priye, Dr. Jaisingh T, Asstt. Professor	Dept. of ECE	42.39	DST (SERB)
206	DST(SERB)/(163)/2016-2017/506/AM	Energy Efficient Trajectory Design for Space Missions	Dr. Badam Singh Kushvah, Associate Professor	Dept. of Applied Math	23.85	DST (SERB)
207	DST(SERB)/(164)/2016-2017/507/AGP	Building Crustal Models and the Delineation of Potential Concealed Mineralized Zones in the North Singhbhum Mobile Belt (NSMB) Eastern Indian Craton Through Integrated Geophysical Studies	Dr. Srinivasa Rao Gangumalla, Asstt. Professor	Dept. of Applied Geophysics	40.18	DST (SERB)
208	DST(SERB)/(165)/2016-2017/508/PDF/AC	Financial Support under National Post Doctoral Fellowship to Dr. Punita Mourya	Prof. G. Udayabhanu	Dept. of Applied Chemistry	19.20	DST (SERB)
209	DST(WTI)/(166)/2016-2017/509/AC	Development of Ternary Nanocomposite Hydrogel Derived from Functionalized Biopolymer Amylose/TiO ₂ -Ag NPs and its Potential Application Towards Treatment of Wastewater	Dr. Sagar Pal, Associate Professor	Dept. of Applied Chemistry	23.90	DST (WTI)
210	DST(SERB)/(167)/2016-2017/510/AM	Mathematical Study on Wave Propagation Aspects in Piezoelectric Composite Structure with Complexities	Dr. Abhishek Kr. Singh, Asstt. Professor	Dept. of Applied Mathematics	14.69	DST (SERB)

3.4 Ph.D. Degree Awarded

The total number of Ph.D. degree awarded during the year 2016-17 has increased substantially in the last 6 years, witnessing a growth from 22 in the year 2010-11 to 167 in the year 2016-17. This recorded a growth of 659% with respect to the base year.



A list of Ph.D. degrees awarded during the year 2016-17 is presented in Table 3.2.

Table 3.2: Research degrees awarded during 2016-17

Sl. No	Name of the candidate	Date of Award	Department/ Discipline	Guide(s)	Title of The Thesis
1	Mrs. Mite Chatterjee 2013/DR/0113	26.05.2016	Applied Mathematics	Prof. A. Chattopadhyay (Guide) & Dr. S. A. Sahu (Co-Guide)	Theoretical Study of Seismic Wave Propagation in Anisotropic Media
2	Harshavardhan Kumar 2010/DR/0018	15.06.2016	Applied Geology	Prof. D. Asthana	The Role of Slab Melting in Neoproterozoic Malankhand Granitoids and Enclaves, and its Relationship to Porphyry Cu-Au Mineralization in Central India: Implication for Crustal Growth and Mineralization
3	Ashok Kumar Pal 2012/DR/0087	15.06.2016	Applied Mathematics	Dr. B. S. Kushvah	Study of the Sun-Earth-Moon System with Poynting-Robertson Drag and Solar Wind Drag
4	Chingtham Prasanta Singh 2014/DR/1130	15.06.2016	Applied Geophysics	Dr. P. N. Singha Roy (Guide) & Dr. Sumer Chopra, Ministry of Earth Science (External Guide)	Time-Dependent and Time-Independent Seismic Hazard Assessment in Northwest and Nepal Himalaya
5	Preeti Deepika Minz 2011/DR/0019	15.06.2016	Applied Physics	Prof. A. K. Nirala	Biospeckle Technique for Analysis of Some Agricultural Samples
6	Anita Sinha 2010/DR/0143	15.06.2016	Electronics Engineering	Prof. V. Kumar	Energy Gap, Heat Capacity and Nonlinear Optical Properties of Some Binary and Alloy Semiconductors

Sl. No	Name of the candidate	Date of Award	Department/ Discipline	Guide(s)	Title of The Thesis
7	Shweta Kumari 2012/DR/0017	15.06.2016	Applied Chemistry	Prof.D. D. Pathak	Graphene Oxide and its Transition Metal Composites: Synthesis, Characterization and Applications: In Selected Organic Transformations
8	Jonaki Banerjee 2013/DR/0001	15.06.2016	Applied Mathematics	Dr. Anurag Jayswal	Optimality Criteria for A Class of Interval-Valued Programming Problems
9	Ritima Das 2012/DR/1003	27.07.2016	Applied Geophysics	Prof. Shalivahan (Guide) & Prof. S. S. Rai (External Guide) Chief Scientist (Retd.) NGRI, Hyderabad	Shear Wave Velocity and Anisotropy of Crust Beneath South India
10	Preshita Neha Tudu 2012/DR/0014	27.07.2016	Management Studies	Prof. Pramod Pathak (Guide)	Psychosocial Dimensions of Stress Management: A Study of Service Industry with Special Reference to Banking Sector
11	Jatindra Kumar Samal 2010/DR/0137	27.07.2016	Applied Geology	Prof. S. Mohanty (Guide) & Dr. S. Mitra (External Guide) KDMIP, Dehradun	Morphotectonic Study of The Krishna-Godavari Basin, India: Its Implication in Petroleum System
12	Rajat Jain 2013/DR/0076	27.07.2016	Petroleum Engineering	Dr. Vikas Mahto (Guide)	Development of Water Based Drilling Fluids for Shale Gas Formation
13	Murali Sekhar Jena 2013/DR/1066	27.07.2016	Fuel and Mineral Engineering	Prof. N. R. Mandre (Guide) & Prof. R. Venugopal (Co-Guide) & Dr. J. K. Mohanty (External Guide) IMMT	Studies on Characterization and Pre-Concentration of Pge Values from Low Grade Chromite Ores of Boula Area, Odisha
14	Sukanta Das 2012/DR/1050	27.07.2016	Applied Chemistry	Dr. G. C. Nayak (Guide) & Dr. S. K. Sahu (External Guide) DRDO, Chandipur	Development of Microwave Absorbing Materials for Camouflaging and Minimization of RF Hazard
15	Rambalak Yadav 2012/DR/0027	27.07.2016	Management Studies	Prof. Govind Swaroop Pathak (Guide)	Attitude and Purchase Intention of Buying Green Products: A Study of Indian Consumers
16	Suprava Chakraborty 2013/DR/0258	27.07.2016	Electrical Engineering	Prof. P. K. Sadhu (Guide)	Techno-Economic Feasibility of Solar Photo-Voltaic Technologies in India
17	Anima Ghosh 2012/DR/0163	27.07.2016	Applied Physics	Dr. R. Thangavel (Guide)	Investigations on Structural and Optical Properties of Copper Chalcogenide Materials and Solar Cell Device Fabrication
18	Rajdeep Kumar Raut 2013/DR/0074	27.07.2016	Management Studies	Dr. Niladri Das (Guide)	Study on Key Determinants of Investment Decision for Small Investors in Indian Capital Market
19	Bappaditya Ghosh 2012/DR/0074	27.07.2016	Applied Mathematics	Dr. P. K. Kewat (Guide)	ON CODES OVER THE RING $F_q [U, V] / \langle U_k, V_2, U_v - V_u \rangle$
20	Vinay Gautam 2012/DR/0079	27.07.2016	Applied Mathematics	Dr. S. P. Tiwari (Guide)	On the Categorical Study of Fuzzy Automation

Sl. No	Name of the candidate	Date of Award	Department/ Discipline	Guide(s)	Title of The Thesis
21	Amit Kumar Sarkar 2012/DR/0018	27.07.2016	Applied Chemistry	Dr. Sagar Pal (Guide) & Prof. N. R. Mandre (Co-Guide)	Polymeric Nanocomposites Derived from Functionalized Amylopectin and Layered Titanate/Nano Tio ₂ : Development And Application
22	Rakesh Kumar Yadav 2011/DR/0124	02.09.2016	Electronics Engineering	Dr. Sushrut Das (Guide) & Dr. R. L. Yadava (External Guide), GCET, Gr. Noida	Microwave Rectennas Integrated with Microstrip Antennas
23	Anirban Lakshman 2013/DR/0166	02.09.2016	Applied Mathematics	Dr. A. K. Singh (Guide)	Mathematical Modeling of Seismic Wave Propagation in Layered Media
24	Dipankar Das 2012/DR/0070	02.09.2016	Applied Chemistry	Dr. Sagar Pal (Guide)	Development and Applications of Functionalized Dextrin Based Hydrogels/Nanogels towards Controlled/Targeted Drug Delivery
25	Kanak Tara 2012/DR/0028	02.09.2016	Management Studies	Dr. Saumya Singh (Guide)	Factors Affecting Green Marketing in Indian Banks- A Study
26	Palash Pal 2014/DR/1054	02.09.2016	Electrical Engineering	Prof. P. K. Sadhu (Guide)	Design, Simulation and Implementation of Contact-Less Induction Heating System Using High Frequency Inverter
27	Nibedita Das 2012/DR/0019	02.09.2016	Electrical Engineering	Dr. Nitai Pal (Guide)	Design of an Energy Efficient Lighting System using Solar Photovoltaic Cell
28	Asmaa Naaz 2013/DR/0060	02.09.2016	Environmental Science and Engineering	Dr. Anshumali (Guide)	The Study on Groundwater Quality and Heavy Metal Toxicity in Sidhi District, Madhya Pradesh, India
29	Lalit Kumar Wadhwa 2010/DR/0128	02.09.2016	Electronics Engineering	Prof. Vishnu Priye (Guide) & Dr. (Mrs.) A. V. Kulkarni (External Guide), DYPET, Pimpri, Pune	Wired and Wireless Network for Application in Mine Safety
30	Bipin Kumar 2012/DR/0134	07.10.2016	Mechanical Engineering	Dr. Vinayak Ranjan (Guide)	Vibro-Acoustic Behaviour of Thin Plate with attached Discrete Patches and Point Masses with Variable Thickness
31	Nirmala Kumari 2013/DR/0024	07.10.2016	Applied Mathematics	Prof. A. Chattopadhyay (Guide) & Dr. S. A. Sahu (Co-Guide)	The Study of Seismic Waves in Layered Media
32	Sanjay Kumar 2012/DR/0081	07.10.2016	Electrical Engineering	Dr. Biplab Bhattacharyya (Guide)	Facts Devices for the solution of Congestion In Transmission Lines
33	Manoj Kumar Singh 2012/DR/0171	07.10.2016	Applied Mathematics	Dr. Akhilesh Prasad (Guide)	A Study of Pseudo-Differential Operator Involving Fourier-Jacobi Transform and Sobolev Type Spaces

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34	Rakesh Kumar 2012/DR/0099	07.10.2016	Fuel and Mineral Engineering	Prof. N. R. Mandre (Guide)	Beneficiation of Iron Ore Slimes by Selective Flocculation
35	Somnath Mahato 2012/DR/0031	07.10.2016	Applied Physics	Dr. A. K. Kar (Guide)	Fabrication and Performance studies of Cdse, Pedot:Pss and Tmo Thin Films and Devices for Solar Photovoltaic Applications
36	Swati Tomar 2012/DR/0046	07.10.2016	Environmental Science and Engineering	Prof. S. K. Gupta (Guide)	Performance Evaluation of Anammox Hybrid Reactor for Removal of Ammonical Nitrogen from Wastewater
37	Pankaj Kumar Baitha 2012/DR/0077	04.11.2016	Applied Physics	Prof. Jairam Manam (Guide)	Investigation of Structural and Optical Properties of ZnO Based Nanocomposites for Opto-Electronic Applications
38	Namrata Chatterjee 2013/DR/0283	04.11.2016	Management Studies	Dr. Niladri Das (Guide)	Critical Factors of Entrepreneurial Success: A Study of Micro-Enterprises in Jharkhand Region
39	Ananda Shankar Hati 2010/DR/0009	04.11.2016	Electrical Engineering	Prof. T. K. Chatterjee (Guide)	Design and Development of Online Condition Monitoring Instrumentation System for Mine Winder Motor
40	Abhay Kumar Bharti 2014/DR/0052	04.11.2016	Applied Geophysics	Dr. S. K. Pal (Guide)	Electrical Resistivity Tomography for Mapping of Coal Mine Voids Over Parts of Jharia and Raniganj Coal Fields, India
41	Anup Kumar Sharma 2013/DR/0002	04.11.2016	Applied Mathematics	Prof. G. N. Singh (Guide)	Some Alternative Estimation Procedures in Sample surveys
42	Rajeev Kumar Ranjan 2011/DR/0148	04.11.2016	Electronics Engineering	Prof. S. K. Paul (Guide)	Design of some Analog Signal Processing and Generating Circuits using Current Mode Analog Building Blocks
43	Soumyajyoti Banerjee 2012/DR/1011	04.11.2016	Humanities and Social Sciences	Dr. Rajni Singh (Guide) & Dr. Amrita Basu, HIT Campus, Haldia (External Guide)	The Interrogating other: An Exploration of selected Novels of Chitra Banerjee Divakaruni
44	Suneet Kumar Gupta 2013/DR/1075	04.11.2016	Computer Science & Engineering	Prof. P. K. Jana (Guide)	Design of Efficient Routing Algorithms for Wireless Sensor Networks
45	Debjani Nag 2012/DR/1073	04.11.2016	Chemical Engineering	Prof. V. K. Saxena (Guide) & Dr. Sanjay Chandra, Tata Steel Ltd. (External Guide)	Studies on the Effect of selected Pre-Carbonisation Techniques and Binders on Coke Quality
46	Mayukh Sarkar 2012/DR/0098	04.11.2016	Mechanical Engineering	Dr. S. K. Ghosh (Guide) & Prof. P. S. Mukherjee (Co-Guide)	Theoretical and Experimental studies of Wear in Mine Excavator Bucket

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47	Jitendra Kumar Mishra 2012/DR/0130	04.11.2016	Electronics Engineering	Prof. Vishnu Priye (Guide)	Multicore Fibers for High Capacity Optical Interconnect Communication System
48	Sahendra Ram 2012/DR/1002	04.11.2016	Mining Engineering	Dr. Dheeraj Kumar (Guide) & Dr. Rajendra Singh (External Guide), CSIR-CIMFR, Dhanbad	A Study of Roof-Pillar Interaction for an efficient Breaker Line Design during Mechanised Depillaring
49	Pradeep Kumar 2012/DR/0092	04.11.2016	Mining Engineering	Dr. D. P. Mishra (Guide) & Prof. D. C. Panigrahi (Co-Guide)	Computational Simulations of Methane Layering and Dispersion of Methane In Underground Coal Mines
50	Md. Ehtesham Hasan 2012/DR/0012	02.12.2016	Mechanical Engineering	Dr. S. K. Ghoshal (Guide) & Prof. Kabir Dasgupta (Co-Guide)	Performance Analysis and Control of Energy Efficient Hydrostatic Transmission System
51	Deepa Agarwal 2012/DR/1102	02.12.2016	Environmental Science & Engineering	Prof. A. K. Pal (Guide) & Dr. J. K. Pandey, CSIR-CIMFR, Dhanbad	Investigations into the Occupational Health problems of Mine Dust for Coal Miners in Jharia Coalfield, India
52	Rimi Das 2013/DR/0215	02.12.2016	Environmental Science & Engineering	Prof. S. K. Maiti (Guide)	Assessment of Carbon Sequestration Potential of Reclaimed Coalmine Sites with Emphasis on Carbon Fractionation
53	Neha Shreya 2011/DR/0052	02.12.2016	Environmental Science & Engineering	Dr. Biswajit Paul (Guide)	Geotechnical Assessment of Geoliner using Fly Ash of Thermal Power Plants Around Jharia Coalfields, India
54	Shipra Kumari 2013/DR/0089	02.12.2016	Computer Science & Engineering	Dr. Hari Om (Guide)	Study and Development of Remote user Login Authentication schemes
55	Sudeshna Saha 2012/DR/0123	02.12.2016	Applied Chemistry	Dr. H. P. Nayek (Guide)	Syntheses of Mononuclear, Polynuclear Metal Complexes and Boronates of Schiff Base Ligands
56	Anil Kumar Singh 2012/DR/1059	02.12.2016	Electronics Engineering	Dr. R. K. Gangwar (Guide) & Dr. B. K. Kanaujia (External Guide), AIACT & R, Delhi	Studies on Annular Ring Microstrip Antenna for different Applications
57	Atrayee Baruah 2013/DR/0021	19.12.2016	Petroleum Engineering	Dr. Keka Ojha (Guide) & Prof. A. K. Pathak (Co-Guide)	Development and Characterization of Surfactant-Based Fracturing Fluids for high Temperature Reservoirs
58	Saroj Kumar Parida 2012/DR/0082	19.12.2016	Applied Physics	Dr. Sridhar Sahu (Guide)	Theoretical studies of Reactivity Properties of Inter-Stellar Carbide Clusters

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59	Atahar Perwez 2013/DR/0115	19.12.2016	Environmental Science & Engineering	Prof. Gurdeep Singh (Guide)	Air Quality Impact Assessment with Special Reference to particulate Pollution due to Iron Ore Mining activities in Mining Region of North Goa
60	Binod Kumar Singh 2010/DR/0101	19.12.2016	Management Studies	Prof. Chandan Bhar (Guide)	Study of Lean Manufacturing Issues in Indian Automotive Industry
61	Anees Ahmad 2013/DR/0081	19.12.2016	Management Studies	Dr. K. S. Thyagaraj (Guide)	The Impact of Brand Personality on Brand Equity: A Study of Mediating Factors
62	Binay Prakash Panigrahy 2013/DR/0126	19.12.2016	Environmental Science & Engineering	Dr. P. K. Singh (Guide)	Assessment of Groundwater Level Fluctuation with Respect to Recharge in Jharia Coalfield Region, Jharkhand
63	Ranjit Kumar Paswan 2013/DR/1062	19.12.2016	Applied Geology	Dr. R. K. Dubey (Guide)	Geotechnical Characterization of Strata for Pre-Split Blasting to Control Pit-Wall Damage in an Opencast Mine
64	Mukti Khetan 2013/DR/0100	19.12.2016	Applied Mathematics	Prof. G. N. Singh (Guide)	Some Estimation Techniques in Presence of Non-Response in Sample surveys
65	Gyan Prakash 2012/DR/0168	14.01.2017	Management Studies	Prof. Pramod Pathak (Guide)	Buying Behaviour of Rural Consumers – A Study with Special reference to Fast Moving Consumer Goods (Fmcg)
66	Priya Kumari 2012/DR/0072	14.01.2017	Management Studies	Prof. J. K. Pattanayak (Guide)	Impact of Corporate Governance Mechanism on Earnings Management Practices and Firm Performance – A study of select Indian Commercial Banks
67	Radha Raman Pandey 2010/DR/0111	14.01.2017	Electronics Engineering	Dr. S. K. Raghuvanshi (Guide) & Prof. V. Kumar (Co-Guide)	Study of Guided and Radiation modes in Planar Slab Optical Waveguides
68	S. Lata Dora 2010/DR/0119	14.01.2017	Environmental Science and Engineering	Prof. S. K. Maiti (Guide) & Dr. Anshumali (Co-Guide) & Dr. R. K. Tiwary, CSIR-CIMFR, Dhanbad (External Guide)	Study of Phytoplankton Community as a Bioindicator for Water Pollution in Damodar River
69	Ratnesh Kumar 2014/DR/0239	14.01.2017	Mechanical Engineering	Dr. Somnath Chattopadhyaya (Guide)	Experimental Investigation of Thermo-Mechanical Characteristics of Friction Stir Welded Joints
70	Kanailal Mahato 2013/DR/0184	14.01.2017	Applied Mathematics	Dr. Akhilesh Prasad (Guide)	Study of Certain Pseudo-Differential Operators and Wavelet Transforms associated with Fractional Hankel Transforms

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71	Rashmi Agrawal 2012/DR/0102	14.01.2017	Applied Mathematics	Prof. R. K. Upadhyay (Guide)	Modeling Ecological systems with Mutual Interference and time delay
72	Mohammad Nadeem 2013/DR/0059	14.01.2017	Computer Science and Engineering	Dr. Haider Banka (Guide) & Prof. R. Venugopal (Co-Guide)	Designing Soft Computing Techniques for Parameter Estimation and Optimization in Green Pelletization
73	Seema Kumari Ladsaria 2012/DR/0156	14.01.2017	Humanities and Social Sciences	Dr. Rajni Singh (Guide)	Imaging and Semiology: A Study of Roland Barthes's Literary Theory
74	Priyanka Sinha 2012/DR/0107	14.01.2017	Management Studies	Dr. Saumya Singh (Guide)	Analysis of Benefits and Risks of Internet Shopping with Special reference to Electronic Products
75	Himangshu Kakati 2013/DR/0062	14.01.2017	Petroleum Engineering	Prof. Sukumar Laik (Guide) & Dr. Ajay Mandal (Co-Guide)	Studies of Hydrate Formation and Dissociation in Mixture of Gases in Presence of Promoters and Inhibitors
76	Trinath Sahoo 2008/DR/0120	08.02.2017	Mechanical Engineering	Prof. P. K. Sarkar (Guide)	Optimization of Condition Based Maintenance Decision with Application of Artificial Intelligence – Opportunity for Petroleum Industry
77	Santasri Koley 2013/DR/0291	08.02.2017	Electronics Engineering	Prof. Debjani Mitra (Guide)	Design and Development of Wideband Cognitive Radio Front-End for Dynamic Spectrum Sensing and Sharing
78	Ravindra Kumar 2012/DR/0050	08.02.2017	Petroleum Engineering	Dr. T. K. Naiya (Guide) & Dr. Ajay Mandal (Co-Guide)	Studies on Improvement in Transportation of Heavy Crude Oil Using Natural and Commercial Surfactants
79	Annavarapu Chandra Sekhara Rao 2013/DR/1042	08.02.2017	Computer Science and Engineering	Dr. Haider Banka (Guide)	Analysis and Synthesis of Public Bioinformatic data using Data Mining and Machine Learning Techniques
80	Sarita Choudhury 2013/DR/0072	08.02.2017	Applied Mathematics	Dr. Anurag Jayswal (Guide)	Study on Optimality Conditions for Nonlinear Programming Problems
81	Anirban Sur 2010/DR/0124	08.02.2017	Mechanical Engineering	Dr. Randip Kumar Das (Guide)	Numerical and Experimental analysis of Activated Carbon-Methanol Adsorption Refrigeration system
82	Bhanu Pratap Singh Dohare 2012/DR/0120	08.02.2017	Electronics Engineering	Prof. V. Kumar (Guide)	First-Principle Calculations of Elastic, Optical and Thermal Properties of some Semiconductors

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83	Sumit Kumar Jindal 2013/DR/0085	08.02.2017	Electronics Engineering	Dr. S. K. Raghuwanshi (Guide)	Enhancing the Dynamic Range of Mems Pressure Sensor by Optimization of Design Parameters
84	Devendra Chack 2011/DR/0111	08.02.2017	Electronics Engineering	Dr. S. K. Raghuwanshi (Guide) & Prof. V. Kumar (Co-Guide)	Design and Implementation of Multimode Interference Coupler Based Devices for Optical Networks
85	Abhishek Kumar Soni 2013/DR/0209	08.02.2017	Applied Physics	Dr. Vineet Kumar Rai (Guide)	Rare Earth Doped Upconverting Phosphors in Optical Thermometry and Photonic Applications
86	Ramesh Oraon 2012/DR/0125	08.02.2017	Applied Chemistry	Dr. G. C. Nayak (Guide)	Synthesis and Characterization of Nanoclay Based Hybrid Electrode Materials for High Performance Supercapacitor
87	K. Karthik Selva Kumar 2013/DR/0082	08.02.2017	Mining Machinery Engineering	Dr. L. A. Kumaraswamidhas (Guide)	Experimental and Numerical Investigation on Flow Induced Vibration Excitation in Elastically Mounted Circular and Square Structures
88	Hanuman Prasad 2013/DR/0159	08.02.2017	Mining Machinery Engineering	Dr. Tanmoy Maity (Guide)	Z-Source Converter for Mine Electric Drives
89	Triveni Kumar Mahto 2012/DR/0061	08.02.2017	Applied Chemistry	Dr. Sumanta Kumar Sahu (Guide)	Synthesis of Multifunctional Magnetic Nanoparticles and Graphene Oxide for Adsorption and Catalysis
90	Fatima Akhtar 2012/DR/0080	08.02.2017	Management Studies	Dr. K. S. Thyagaraj (Guide) & Dr. Niladri Das (Co-Guide)	Influence of Personality Traits on Investment Decisions in Indian Capital Market
91	Shwetank Parihar 2013/DR/1061	08.02.2017	Management Studies	Prof. Chandan Bhar (Guide) & Mr. Rakesh Khanduri, Madhuri Consultancy Services Pvt. Ltd., Shalimar Bagh, Delhi (External Guide)	Development of a Conceptual Model for Risk Assessment of Electrical Transmission Line Installation Projects
92	Shweta R. Malwe 2012/DR/0127	21.02.2017	Computer Science and Engineering	Prof. G. P. Biswas (Guide)	Design of Layer and Cross-Layer Protocols for Wireless Ad Hoc Networks
93	Dipen Kumar Rajak 2013/DR/0230	21.02.2017	Mining Machinery Engineering	Dr. L. A. Kumaraswamidhas (Guide) & Dr. S. Das, CSIR-AMPRI, Bhopal (External Guide)	Experimental Investigations on Energy Absorption Behaviour of Aluminium Alloy Foam-Filled Thin Walled Structure at Various Loading Conditions
94	Shinde Prakash Sonyabapu 2010/DR/0114	21.02.2017	Mechanical Engineering	Dr. K. K. Singh (Guide) & Prof. P. K. Sarkar (Co-Guide) & Prof. V. K. Tripathi, College of Engineering, Pune (External Guide)	Optimum Design of Composite Patches to Arrest a Crack in Thin Plates

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95	Sohini Das 2009/DR/0013	21.02.2017	Applied Geology	Dr. Mrinal Kanti Mukherjee (Guide)	Structural Pattern and Kinematic Framework of Deformation in the Eastern Sector of Kaladgi Basin, Bagalkot District, Karnataka, South-Western India
96	Shikha Dwivedi 2012/DR/0114	21.02.2017	Applied Physics	Dr. Pankaj Mishra (Guide)	Molecular Theory of Structure and Freezing of Model Systems with Liquid Crystal Phases
97	Pradeep Kumar Gautam 2013/DR/0293	21.02.2017	Mining Engineering	Dr. Amit Kumar Verma (Guide) & Dr. Kripamoy Sarkar (Co-Guide)	Thermomechanical Behavior of Indian Granite and Sandstone for Underground Disposal of High Level Radioactive Waste
98	Ankit Kotia 2013/DR/0083	21.02.2017	Mechanical Engineering	Dr. Subrata Kumar Ghosh (Guide)	Experimental and Mathematical Analysis of Nanolubricant for Performance Evaluation
99	Sagar Kumar Swain 2012/DR/0068	21.02.2017	Applied Geology	Dr. S. Sarangi (Guide)	Stable Isotope and Geochemical studies of Ajjanahalli and Parts of Gadag Gold Field, Chitradurga Schist Belt, Dharwar Craton, South India
100	Pramod Kumar Vaishnav 2013/DR/0088	21.02.2017	Applied Mathematics	Dr. Santimoy Kundu (Guide)	Theoretical study on Seismic Waves in Anisotropic Layered Media
101	Shiv Kumar 2013/DR/0168	21.02.2017	Applied Mathematics	Dr. Abhay Kumar Singh (Guide) & Dr. S. Kar, NIT Durgapur (External Guide)	Development and Application of an Inventory System for Managing Quality, Quantities, Time, Price and Production by Optimization Techniques
102	Sachin Maheshwar 2013/DR/1052	21.02.2017	Mining Engineering	Dr. Amit Kumar Verma (Guide)	Study of Near-Field Evolution of Thermo-Hydro-Mechanical Processes in Indian Deep Geological Repository for High Level Nuclear Wastes
103	Sayan Ghosh 2012/DR/1074	21.02.2017	Applied Geophysics	Prof. Rima Chatterjee (Guide) & Shri Prabhat Shanker, Ex-GM(Geology),CMPDI, Ranchi (External Guide)	Estimation of Coal Quality and Modeling of Coal Seam Surface using Well Logs in Korba and Bishrampur Coalfields of Central India
104	Debanjan Nag 2012/DR/0106	14.03.2017	Management Studies	Dr. Niladri Das (Guide)	Factors Affecting Microentrepreneurial Success- A Study of Select Districts of Jharkhand

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105	Debabrata Roy 2014/DR/1053	14.03.2017	Electrical Engineering	Prof. P. K. Sadhu (Guide)	Control Strategies of High Frequency Resonant Inverter for Induction Heater
106	K. Priya Ajit 2013/DR/1006	14.03.2017	Mechanical Engineering	Prof. P. K. Sarkar (Guide)	Ductile and Fatigue Behaviour Characterization of Steels through Continuum Damage Mechanics - An Experimental Exploration
107	Pankaj Kumar Medhi 2013/DR/1027	14.03.2017	Management Studies	Dr. Sandeep Mondal (Guide)	Modeling Issues in Supply Chain Collaboration- A study of Relational Identity
108	Anjani Kumar 2012/DR/1092	14.03.2017	Environmental Science & Engineering	Dr. P. K. Singh (Guide)	Evaluation of Mine Water and Development of suitable Techniques for Ascertaining its Suitability for Proper Management in Western Part of Jharia Coal Mining Region, Jharkhand
109	Amrit Kumar Mahato 2013/DR/0104	14.03.2017	Applied Mathematics	Dr. Abhay Kumar Singh (Guide)	Compressible Modules and their Applications
110	Rehena Sultana 2013/DR/0006	14.03.2017	Applied Mathematics	Prof. S. Gupta (Guide)	Theoretical study of some problems on Seismic Wave Propagation in Anisotropic and Inhomogeneous Media
111	Rituraj Singh 2013/DR/0265	14.03.2017	Petroleum Engineering	Dr. Vikas Mahto (Guide)	Development of Nanocomposite Hydrogels to Control Excessive Water Production in the Oilfields
112	Ruhul Amin 2014/DR/0078	14.03.2017	Computer Science & Engineering	Prof. G. P. Biswas (Guide)	Secure Multi-Factor Authentication for Remote Login and Real-Life Applications
113	Ajay Kumar Yadav 2013/DR/0016	14.03.2017	Computer Science & Engineering	Dr. Sachin Tripathi (Guide)	Study and Development of Routing Protocols for Multicasting in Wireless Mobile Ad-Hoc Network
114	Soumya Das 2014/DR/1055	14.03.2017	Electrical Engineering	Prof. Pradip Kumar Sadhu (Guide)	Efficient Control Strategies on Solar Photovoltaic Power Generation and Utilization
115	Shantanu Saha 2013/DR/0033	14.03.2017	Management Studies	Dr. Bibhas Chandra (Guide)	A Study of Blood Donation Intention Among Indian Blood Donors
116	Jitin Rahul 2013/DR/0065	14.03.2017	Environmental Science & Engineering	Dr. Manish Kumar Jain (Guide)	Biodiversity of Vascular Plants and Atmospheric Heavy Metal Deposition Along The National Highway-2, Dhanbad, Jharkhand, India

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117	Vikram Sharma 2013/DR/1030	14.03.2017	Mechanical Engineering	Dr. A. R. Dixit (Guide) & Dr. Mohd. Asim Qadri, GCET, Noida, (Co-Guide)	Empirical Investigation of Lean Production Practices in Indian Machine Tool Industry
118	Ashvani Kumar 2012/DR/0086	14.03.2017	Environmental Science & Engineering	Dr. S. R. Samadder (Guide) & Dr. Vipin Kumar (Co-Guide)	Analysis of Contaminant Leaching From Coal Combustion Residues into Surface Water, Soil, and Groundwater
119	Abhiroop Chowdhury 2013/DR/0015	14.03.2017	Environmental Science & Engineering	Prof. S. K. Maiti (Guide)	Effect of Metal Pollution And Salinity Rise on The Mangrove Ecosystem and Their Mitigation Measures: A Case Study from Sundarban Biosphere Reserve, India
120	Rakesh Kumar 2013/DR/0095	14.03.2017	Electrical Engineering	Dr. Sukanta Das (Guide)	Low-Region Speed Control o Vector Controlled Induction Motor Drives using Model Reference Adaptive Controller
121	Debleena Bhattacharya 2011/DR/0038	14.03.2017	Environmental Science & Engineering	Prof. S. K. Gupta (Guide)	Biodegradation of Antibiotic Residuals in Anaerobic Hybrid Reactor
122	Ashish Gupta 2013/DR/0195	14.03.2017	Electronics Engineering	Dr. R. K. Chaudhary (Guide)	Studies on Compact Metamaterial Antennas for Modern Wireless Communication
123	Jully Patel 2013/DR/0141	14.03.2017	Applied Chemistry	Dr. Sumanta Kumar Padhi (Guide)	Molecular Catalytic Approach By Single-Site Ruthenium(Ii)-Polypyridyl Complexes Towards Water Oxidation
124	Alok Kumar Singh 2013/DR/0121	14.03.2017	Applied Mathematics	Prof. G. N. Singh (Guide)	Some Efficient Estimation Techniques in Successive Sampling
125	Anup Saha 2013/DR/0186	14.03.2017	Applied Mathematics	Dr. S. Kundu (Guide)	Mathematical study of Seismic Waves in Anisotropic and Heterogeneous Media
126	Sunil Kumar 2015/DR/0001	14.03.2017	Petroleum Engineering	Dr. Ajay Mandal (Guide)	Studies on Surface and Interfacial Properties of Cationic, Anionic and Nonionic Surfactants for their Application in Enhanced Oil Recovery
127	P. CHJ. Srinivasa Rao 2012/DR/0152	14.03.2017	Computer Science & Engineering	Dr. Haider Banka (Guide) Prof. P. K. Jana (Co-Guide)	Designing Soft Computing Algorithms for Wireless Sensor Networks
128	Bappa Mukherjee 2013/DR/0155	14.03.2017	Applied Geophysics	Dr. P. N. Singha Roy (Guide)	Integrated Approach to study The Heterogeneity of Hydrocarbon Reservoirs in Assam-Arakan Basin of North-East, India
129	Debashis Das 2012/DR/0138	14.03.2017	Computer Science & Engineering	Dr. Susanta Mukhopadhyay (Guide) & Prof. G. P. Biswas (Co-Guide)	On Processing and Analyzing Fingerprint Images with Template Security

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130	Deepak Gangwar 2012/DR/1016	14.03.2017	Electronics Engineering	Dr. Sushrut Das (Guide) & Prof. R. L. Yadava (External Guide), GCET, Greater Noida	Studies on Fss / Srr / Csrr Superstrate Loaded Antennas and Mutual Coupling Reduction in Microstrip Patch Array
131	Lakhindar Murmu 2012/DR/0058	14.03.2017	Electronics Engineering	Dr. Sushrut Das (Guide)	Design, Analysis and Susceptibility study of Some Microstrip Bandpass Filters
132	Srikanth Jannu 2012/DR/0083	14.03.2017	Computer Science & Engineering	Prof. P. K. Jana (Guide)	Study and Design of Energy Efficient Routing Algorithms for Wireless Sensor Networks
133	Dipen Bepari 2012/DR/0126	14.03.2017	Electronics Engineering	Prof. Debjani Mitra (Guide)	Optimization of Channel and Power Allocation in Cognitive Radio Systems
134	Rishav Singh 2013/DR/1111	29.03.2017	Computer Science and Engineering	Dr. Hari Om (Guide)	Study and Development of Newborn Face Recognition Techniques in A Semi-Constrained Environment
135	Jitendra Pandey 2011/DR/0117	29.03.2017	Mining Engineering	Dr. Dheeraj Kumar (Guide) & Prof. D. C. Panigrahi (Co-Guide) & Dr. V. K. Singh (External Guide), CIMFR Dhanbad	An Investigation into Assessment, Prediction and Prevention of Coal Mine Fire of Jharia Coalfield using Integrated Approach
136	Astha Sharma 2012/DR/0025	29.03.2017	Electronics Engineering	Prof. Debjani Mitra (Guide)	Performance Metrics for Spectrum Opportunity Detection in Cognitive Radio Networks
137	Rajkamal 2012/DR/0037	29.03.2017	Applied Chemistry	Dr. Somnath Yadav (Guide)	Syntheses, Characterization and Applications of Arabinose Based Low Molecular weight organogels
138	Rajen Kumar Nayak 2012/DR/1033	29.03.2017	Mechanical Engineering	Dr. S. N. Singh (Guide)	Experimental study of the effects of Flow and Geometrical Parameters on the Performance of Jet Plate Solar Air Heater
139	Tarun Kanti Sarkar 2013/DR/0149	29.03.2017	Applied Chemistry	Dr. M. Yadav (Guide)	Experimental and Quantum Chemical studies on Corrosion Mitigation of Petroleum Oil Well Steel in 15% HCL Solution using Organic Inhibitors
140	Zeenat Parween 2013/DR/0164	29.03.2017	Applied Mathematics	Dr. Abhishek Kumar Singh (Guide)	Some problems on Elastodynamics in Layered Media
141	Dipti Sharma 2012/DR/0105	29.03.2017	Applied Chemistry	Dr. M. Yadav (Guide)	Studies an Corrosion Inhibition of Petroleum Oil Well Tubular Steel in Hydrochloric Acid

Sl. No	Name of the candidate	Date of Award	Department/ Discipline	Guide(s)	Title of The Thesis
142	Kshiramani Naik 2012/DR/0115	29.03.2017	Computer Science and Engineering	Dr. Arup Kumar Pal (Guide)	Design of some Transform Domain Based Image Cryptosystem, Steganography and Watermarking Schemes
143	Amrita Kumari 2012/DR/0055	29.03.2017	Electronics Engineering	Dr. Subindu Kumar (Guide)	Computational Techniques and Performance Evaluation of Nanoscale Strained Mosfets and Related Cmos Circuits
144	Laldeep Gope 2011/DR/0147	29.03.2017	Applied Chemistry	Dr. M. Yadav (Guide)	Experimental and Quantum Chemical Studies on Corrosion Inhibition of Mild Steel in Hydrochloric Acid by Some Organic Compounds
145	Amitesh Kumar 2012/DR/1042	29.03.2017	Electronics Engineering	Prof. Vishnu Priye (Guide)	Studies on Microwave Photonic Devices
146	Aliya Naz 2013/DR/0064	29.03.2017	Environmental Science and Engineering	Prof. S. K. Gupta (Guide) & Dr. B. K. Mishra (Co-Guide)	Risk Assessment of Chromium in the Chromite Mine Water and its Bioremediation
147	Akaitab Mukherjee 2013/DR/0057	29.03.2017	Humanities and Social Sciences	Dr. Rajni Singh (Guide)	Exchange in Text-Screen Interface: A Study of the Film Adaptations of Rituparno Ghosh
148	Salahuddin Siddique 2012/DR/1026	29.03.2017	Fuel and Mineral Engineering	Prof. N. R. Mandre (Guide) & Dr. K. Srinivas (External Guide), Ex CS(Mill), Tummalapalle, UCIL	Studies on recovery of Uranium from Finely Disseminated and High Carbonatic Ore
149	Arijit Barik 2009/DR/0005	29.03.2017	Applied Geology	Dr. S. Sarangi (Guide)	Stable Isotope (C and O) and Geochemical Evaluation of the Carbonate Rocks of Sausar Group, Nagpur District, Maharashtra: Implication to the early Palaeoproterozoic Environment
150	Papiya Dhara 2012/DR/0060	29.03.2017	Applied Physics	Dr. V. K. Singh (Guide)	Investigations on Design and Characterization of Optical Fiber Sensors for Various Parameters
151	Anuj Kumar Sharma 2013/DR/1072	29.03.2017	Mechanical Engineering	Dr. Amit Rai Dixit (Guide) & Dr. Arun Kumar Tiwari (External Guide), GLA University, Mathura	An Investigation on Performance of Hybrid Nanoparticle Enriched Cutting Fluids in Turning Operation
152	Sunil Kumar Barnwal 2011/DR/0144	29.03.2017	Management Studies	Prof. Pramod Pathak (Guide) & Prof. G. S. Pathak (Co-Guide)	User acceptance of E-Governance services in the Indian Context: An Exploratory study
153	Nishant Kumar Singh 2013/DR/1048	29.03.2017	Mechanical Engineering	Dr. K. K. Singh (Guide) & Dr. Pulak M. Pandey (External Guide), IIT Delhi	Experimental Investigation and Analysis of Air Assisted Electric Discharge Machining with Perforated Tool

Sl. No	Name of the candidate	Date of Award	Department/ Discipline	Guide(s)	Title of The Thesis
154	Abhisek Jana 2013/DR/1101	29.03.2017	Management Studies	Dr. Bibhas Chandra (Guide)	A Customer Loyalty Framework for Independent Mid-Market Hotel Sector of Jharkhand, India
155	Amrita Singh 2013/DR/0158	29.03.2017	Applied Geophysics	Dr. Saumen Maiti (Guide)	Modelling of Discontinuous Geophysical Signal using Wavelet Transform
156	Rohit Kumar Yadav 2012/DR/0132	29.03.2017	Computer Science and Engineering	Dr. Haider Banka (Guide)	Design of Soft Computing Methodologies for Bioinformatics Problems
157	Mamta Singh 2011/DR/0120	31.03.2017	Management Studies	Dr. Saumya Singh (Guide) & Dr. Syed Haider Ali (Co-Guide)	Human Resource Management Issues in Microfinance Institutions – A study
158	Manisha 2012/DR/0100	31.03.2017	Environmental Science and Engineering	Prof. A. K. Pal (Guide) & Dr. Suresh Pandian Elumalai (Co-Guide)	Assessment of the impacts of Air Pollutants from Anthropogenic sources on Plant Physiology and Soil
159	Sumit Kumar Chaudhary 2012/DR/0165	31.03.2017	Mining Engineering	Dr. Dheeraj Kumar (Guide) & Dr. Manish Kumar Jain (Co-Guide)	Investigation into the Satellite Image Fusion and Quality Assessment Techniques for Land use Applications
160	Shrenivas S. Ashrit 2014/DR/1005	31.03.2017	Applied Chemistry	Prof. G. Udayabhanu (Guide) & Prof. R. Venugopal (Co-Guide) & Dr. K. N. Udpa (External Guide), Tata Steel Limited, Jamshedpur	Analysis and Characterisation of Steel Plant Ld Slag Fines and Feasibility studies on Product Development for Industrial Application
161	Jasabanta Sekhar Hansdah 2012/DR/0044	31.03.2017	Applied Physics	Dr. P. M. Sarun (Guide)	Studies on the Fluxpinning Properties of MgB ₂ Superconductor by Chemical Doping and Ion Implantation for High-Field Magnet Applications
162	Vinay Kumar Rajak 2011/DR/0130	31.03.2017	Petroleum Engineering	Dr. Ajay Mandal (Guide)	Optimization of Process Parameters for Separation of Oil from Oil-in-Water Emulsion
163	Satish Kumar Singh 2013/DR/0041	31.03.2017	Electronics Engineering	Dr. Jitendra Kumar (Guide)	Anisotropic Semiconductor Quantum Dots for Polarization Sensitive Infrared Photodetection
164	Ravi Shankar Sinha 2012/DR/0091	31.03.2017	Mining Machinery Engineering	Prof. A. K. Mukhopadhyay (Guide)	Statistical Analysis of Failure Data of Comminuting Equipment in A Mineral Processing Plant
165	Brahmdeo Yadav 2010/DR/0106	31.03.2017	Environmental Science and Engineering	Prof. S. K. Gupta (Guide)	Geotechnical Investigation and Design of Compacted Clay Liner (Ccl) using Local Soil of Jaduguda Uranium Ore Mines
166	Ananyo Bhattacharya 2012/DR/0137	31.03.2017	Electrical Engineering	Prof. P. K. Sadhu (Guide)	Studies of High Frequency Resonant Inverter in Induction Heating Appliances

Sl. No	Name of the candidate	Date of Award	Department/ Discipline	Guide(s)	Title of The Thesis
167	Minashree Kumari 2013/DR/0241	31.03.2017	Environmental Science and Engineering	Prof. S. K. Gupta (Guide)	Risk Assessment, Modeling and control of Trihalomethanes (Thms) from Drinking Water

3.5 Research Publications

One of the major outcomes of research and a key parameter to project Institute's research activities is publications by faculty members in reputed journals that are globally acknowledged for Institute rankings. The two databases that enlist research papers are given below:

1. **SCOPUS Database** - maintained by Elsevier, Amsterdam, Netherlands
2. **Web of Science Database, USA** - maintains SCIE/SSCI journals

3.5.1 Publications in SCOPUS database during the calendar year 2016

In the calendar year 2016, total publications of the Institute in SCOPUS database was 1237 that has resulted in 56% growth over previous year of 789 and overall growth of about 688% as compared to base calendar year 2010. The number of publications in SCOPUS database during the calendar years 2010 to 2016 are presented below in the chart. Table 3.3 presents yearwise per faculty publication in SCOPUS database during the calendar years 2010 to 2016. The present per faculty publication is comparable to the top five IITs of the country. The complete list of publications of IIT (ISM) in SCOPUS database for the calendar year 2016 is presented in the section 3.5.3.

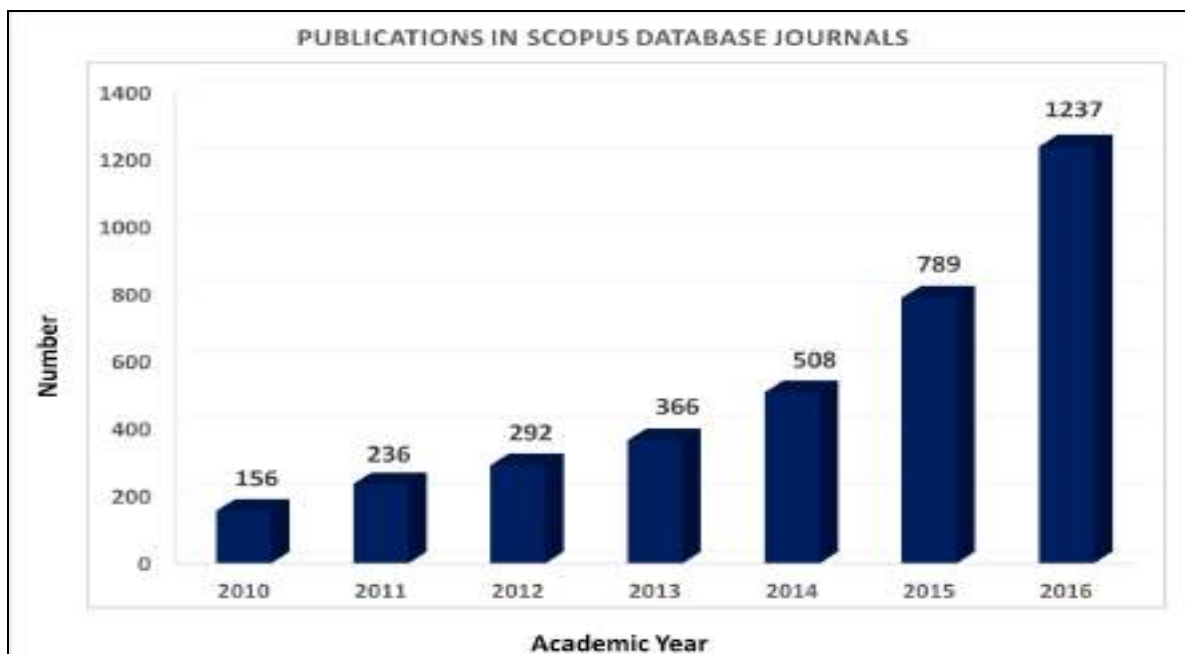


Table 3.3: Year-wise per faculty publications in SCOPUS database during the calendar years 2010 to 2016

<i>Year</i>	<i>No. of Publications</i>	<i>Per Faculty Publication</i>	<i>Yearly Growth of Publication</i>	<i>Overall Growth of Publication</i>
2010	156	0.85	<i>Base Year</i>	
2011	236	1.18	51%	51%
2012	292	1.33	24%	87%
2013	366	1.67	25%	135%
2014	508	2.03	38%	226%
2015	789	2.97	55%	406%
2016	1237	4.35	56%	688%

3.5.2 Publications in Web of Science (WoS) database during the calendar year 2016

During this one year period, a total number of 1057 publications was made in SCIE/SSCI journals which reflect an enhancement of 52% over the previous year of 698 and about 836% over the base year 2010. The number of publications in WoS database during the calendar years 2010 to 2016 are presented below in the chart. Table 3.4 presents year-wise per faculty publications in Web of Science database during the calendar years 2010 to 2016. The present per faculty publication is comparable to the top five IITs of the country. The complete list of publications of IIT (ISM) in Web of Science database for the calendar year 2016 is presented in the section 3.5.4.

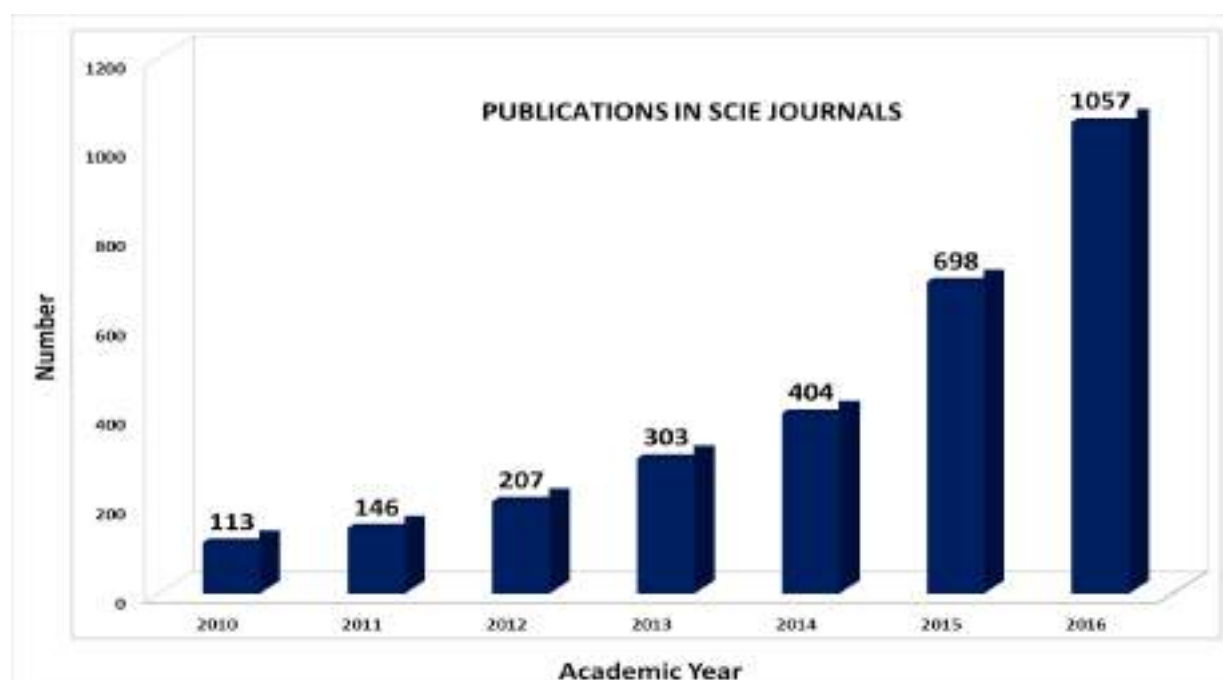


Table 3.4: Year-wise per faculty publications in WoS database during the calendar years 2010 to 2016

<i>Year</i>	<i>No.of Publications</i>	<i>Per Faculty Publication</i>	<i>Yearly Growth (%)</i>	<i>Overall Growth (%)</i>
2010	113	0.61	<i>Base Year</i>	
2011	146	0.73	29%	29%
2012	207	0.95	42%	83%
2013	303	1.21	46%	168%
2014	404	1.52	33%	258%
2015	698	2.49	73%	518%
2016	1057	3.72	52%	836%

3.5.3 List of Publications in Scopus Database in the Calendar year 2016

1. Adak P., Elumalai S.P. and Sahu R.; 2016, Study on impacts of auto-rickshaws on fuel consumption and delay of personal vehicles, 2015 World Congress on Sustainable Technologies, WCST 2015, pp. 154 - 158.
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6. Agarwal S., Sarkar S., Das M. and Dixit A.R.; 2016, Tribo-mechanical characterization of spark plasma sintered chopped carbon fibre reinforced silicon carbide composites, Ceramics International, 42, 16, pp. 18283 - 18288.
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16. Alam M., Chatterjee S. and Banka H.; 2016, A novel parallel search technique for optimization, 2016 3rd International Conference on Recent Advances in Information Technology, RAIT 2016, pp. 259 - 263.
17. Alam P., Kundu S. and Gupta S.; 2016, Dispersion study of SH-wave propagation in an irregular magneto-elastic anisotropic crustal layer over an irregular heterogeneous half-space, *Journal of King Saud University - Science*.
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4. CENTRES OF ADVANCED LEARNING

IIT (ISM) has been recognized as a Centre of Advanced Learning in the fields of mining, mineral, mining environment, earth sciences, petroleum, mining machinery, mine electronics, applied sciences etc. There were five research centres existing at IIT (ISM) up to the year 2011. Eleven new centres have been added thereafter.

Research Centres upto 2011

- Centre for Mining Environment
- Centre of Advanced Study in Mining Engineering
- Centre of Rock Excavation Engineering
- Centre of Longwall Mine Mechanization
- ENVIS Centre of MoEF&CC

New Research Centres added during 2011-17

- Central Research Facility
- Centre of Water Resource Management
- Center of Excellence in Safety, Occupational Health and Disaster Management
- Key Resource Centre for Water and Sanitation
- Center for Renewable Energy
- Centre of Excellence in Mining Technology
- Australia-India Joint Research Centre for Clean Coal and Energy Technology
- Reservoir Characterization Centre

Other Centres added during 2011-17

- Centre for Innovation, Incubation, and Entrepreneurship
- Faculty Development Centre as a part of Pandit Madan Mohan Malviya National Mission for Education
- Centre for Societal Mission

4.1 Central Research Facility (CRF)

A Central Research Facility at IIT (ISM) has been setup recently. The centre hosts high-quality equipment with cutting-edge technologies. The centre provides scientific and technical services for researchers, faculty members & students. Such a facility is an important tool for strengthening the research-relevant infrastructure for science spirit and a key pre-requisite for preserving and enhancing the efficiency of research output. Sophisticated analytical instruments are vital for pursuing research in all areas of modern science and technology.

Objectives of CRF

- To establish state-of- the-art research facilities and instruments to support advanced research under one umbrella.
- To support and promote inter-and multi-disciplinary research in contemporary and frontier areas.

- To enable faculty members and research scholars of IIT (ISM) to get the facilities of most advanced instruments without the need of going to outside institutions.
- To establish supporting facilities (e.g. Double Distilled Water Plant, Milli-Pore and Milli-Q water Plant, Liquid Nitrogen Plant etc.) for smooth running of instruments.

Table 4.1 lists the major instrumental facilities at CRF.

Table 4.1: Major Instrumental Facilities at CRF

<i>Name of Equipment</i>	<i>Purpose/Uses</i>
FE-SEM (Field Emission Scanning Electron Microscope) Software :Smart SEM	<i>To find the surface structure, surface morphology & elemental composition.</i>
RHEOMETER Software :BohlinR6.51.0.3	<i>To find the viscosity & strength of the liquid & gel sample.</i>
UV-VIS-NIR Spectrophotometer Software :CarryWinUV	<i>To find the optical properties of liquid, solid & thin film sample.</i>
EPMA (Electron Probe Micro Analyzer) Software :Cameca PeakSightV5.1	<i>To find the qualitative, quantitative, x-ray mapping & BSE image.</i>
SPM (Scanning Probe Microscope) Software :Nano Scope Analysis 1.5	<i>To find the 3D mapping, topography with roughness & height profile, Microscopy like MFM, CFM, EFMetc.</i>
MALSS (Multi Angle Light Scattering Spectrophotometer) Software :ParSEC Chromatography Software :NanoScopeAnalysis 1.5	<i>To find the average molecular weight and PDI of polymer sample.</i>
Single Crystal XRD Software :38.46CrysAlis PRO	<i>To find the structure of crystal</i>

4.2 Centre of Excellence in Safety, Occupational Health and Disaster Management

For furthering the research and development activities in mine safety, occupational health, and disaster prevention and management to improve safety and work place environment, Centre of Excellence in Safety, Occupational Health and Disaster Management (COESOHD) has been established in the Department of Mining Engineering at IIT (ISM), Dhanbad. The present scope of the centre encompasses the mining industry (covering both underground as well as surface mining) with a special attention to the deep mining issues.

4.2.1 Collaborative R&D projects with CIL and Australian Universities/ Organizations under COESOHD

One project has been approved and already received partial funding from Coal India Limited under CIL R&D grant as mentioned below:

Project Title	Sanctioned Amount	Australian Collaborating Organization/ University
Development of guideline for prevention & mitigation of explosion hazard by risk assessment and determination of explosibility of Indian coal incorporating risk based mine emergency evacuation and re-entry protocol	Rs. 8.33 Crores	SIMTARS (Safety in Mines, Training and Research Station) under the Department of Natural Resources and Mines, Govt. of Queensland, Australia

4.3 Australia-India Joint Centre of Excellence in Mining Technology (CEMT)

A proposal was submitted to MHRD, Govt. of India for establishing a dedicated Centre for taking forward the Indo-Australia Collaboration for Mining Technology. Realizing the need for a concentrated effort, The Australia-India Joint Centre of Excellence in Mining Technology (CEMT) has been sanctioned by MHRD with a seed grant of Rs. 6.75 crores on 22nd January 2016. The centre has been established at the Department of Mining Engineering, IIT (ISM). The Australian High Commissioner to India, H.E. Ms. Harinder Sidhu inaugurated the Centre on 17th February 2017 in the Heritage Building at Deptt. of Mining Engineering, IIT(ISM), Dhanbad.

4.3.1 Institution of Australian Partnership Coordinator (APC) position

Considering the importance of the collaboration, an Australian Partnership Coordinator (APC) position has been sanctioned by the Australian Govt. to pursue the various activities envisaged under CEMT.

4.3.2 Collaborative R&D projects with CIL and Australian Universities/ organizations under CEMT

One project has been approved and has already received partial funding from Coal India Limited under CIL R&D grant while second project is in its final stage of approval.

Project Title	Sectioned Amount	Australian Collaborating Organization/ University
Multiple layer trial blasting for better recovery with less diluted coal	Rs. 4.31 Crores	JKMRC, University of Queensland
Development of Virtual Reality Mine Simulator (VRMS) for improving Safety and Productivity in Indian Coal Mines	Rs. 14.10 Crores	Simtars, Department of Natural Resources, Govt. of Queensland, CMPDIL, Coal India Ltd., BCCL, and NCL

4.4 Oil and Gas Reservoir Characterization Simulation

Petroleum Engineering is a unique stream where engineering is applied to the subsurface formation which is neither accessible nor visible to the engineers. Hence, ensuring reliability of the applied engineering and related predictions is challenging. Simulation software integrates geological, geophysical, reservoir and production data to maximize the reliability of predictions. Simulation software is widely used in upstream oil and gas industries to visualize the reservoir and predict recoverable amount of hydrocarbon from it. These days, decision on capital investments in exploration and production projects is primarily based on techno-economic analysis using the simulation software. Hence, providing knowledge and skills relevant to the application of this software to petroleum engineers is necessary to ensure their preparedness for the oil and gas jobs and academic research. To achieve this objective, IIT (ISM), Dhanbad signed a MoU with Schlumberger Asia Services Limited in 2016 for establishing Reservoir Characterization Centre (RCC) in the Department of Petroleum Engineering of IIT (ISM). As a part of the implementation of ICT based teaching and research in Petroleum industry, Advanced Reservoir Characterization software worth USD 13.14 million was sponsored by Schlumberger and introduced in the course of Petroleum Engineering of IIT (ISM), Dhanbad.

5. INDUSTRY - INSTITUTE INTERACTION

Industry - Institute Interaction is well established area at IIT (ISM). There has been a steady growth over the years in the sponsored projects, financial outlay and external cash flow through consultancy and professional development programmes offered to various Industries and Organizations.

5.1 Consultancy Projects

The faculty members of IIT (ISM) are involved in solving the real-life problems of different industries. As a result, the Institute has established excellent interaction with companies of public and private sectors, both in India and abroad apart from various Government bodies and research institutions. Many of the core sector industries regularly seek advice and expertise of IIT (ISM) faculty for their technological and economic development. Some of the major industries served in the recent past are listed below.

5.1.1 List of major industries, Government organizations, research institutions sponsoring projects to IIT (ISM)

Furgo Nexterra Geophysics Pvt. Ltd., Kolkata; Chennai Metro Rail Project; Hutti Gold Mines Co. Ltd, Raichur; World Bank Project; Ministry of Mines; Ministry of Mines & Petroleum, Islamic Republic of Afganistan; Ministry of External Affairs, Government of India; DVC Bokaro; CCL; Tata Steel; SCCL; BCCL; MCL; WCL; SECL; NCL; ECL; UCIL; West Bengal Mineral Development & Trading Corporation Ltd.; SGS India Pvt. Ltd., Kolkata; Essar Oil Ltd. Durgapur; FCI; Aravali Gypsum and Minerals India Ltd., Jodhpur; SAIL; IEL; MECON Ranchi; Departement of Mines and Geology, Government of Jharkhand; Monnet Ispat and Energy Limited; NTPC; NHPC; ONGC; OIL India Limited; Rio-Tinto; Schlumberger Asia; Shell Technologies; PWC; Infosys; Atlas Copco; Vedanta; Hindustan Copper Limited; Hutti Gold Mines Ltd.; 3M India Ltd.; Central Ground Water Board; Coal Miners' Provident Fund Organisation; Central Mining & Fuel Research Institute; Essar Steel; e-Valueserve.com, FACOR, Bhadrak; Gujarat Mineral Development Corporation, Hindustan Lever Ltd; SAIL; McNally Bharat; Ministry of Coal GOI; SGS India Pvt. Ltd; Tega Industries Ltd; VG Quenim- Goa; Vizag Sea-port; Warman Intl (I) Pvt Ltd.

The value of Consultancy projects undertaken during the year amounted to Rs.1702.30 Lakhs. A list of the consultancy projects executed at IIT (ISM) during the financial year 2016-17 is presented in Table 5.1.

Table 5.1: List of Consultancy Projects Undertaken during F.Y. 2016-17

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
1	Cons/3166/2016-17	Electrcial Resistivity Tomography for Locating of Cavity Zones Around Thapar Nagar	Dr.Sanjit K. Pal, CI Dr. U. K. Singh, CO-CI Prof. Shalivahan, CO-CI Prof. P. R. Mohanty, CO-CI	L & T Construction

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
2	Cons/3167/20 16-17	To Ascertain the Presence of Basement Rock Like Basalt Volcanic Rock in the drill cutting samples of the wells drilled in Jaisalmer	Prof. Rima Chatterjee, CI Prof. S. P. Mohanty, CO-CI	Focus Energy Ltd. New Delhi
3	Cons/3168/20 16-17	Determination of Compressive Strength and Cerchar Hardness of Limestone Samples of Dalmia Cement Supplied by MMD HaveyMechanary India (P) Ltd. Kolkata	Prof. A. K. Mishra, CI Prof. VMSR Murthy, CO-CI	MMD Heavy Mechanery (India) Pvt. Ltd. Kolkata
4	Cons/3169/20 16-17	Testing of Coal Samples of Bhajudih, BCCL	Dr. Shravan Kumar, CI Prof. N.R. Mandre, CO-CI Shri S. Soren, CO-CI Shri A. Anupam, CO-CI	Bhjudih Coal Washery, BCCL
5	Cons/3170/20 16-17	Testing of Coal Samples	Prof. N. R. Mandre, CI Dr. Shravan Kumar, CO-CI	BCCL
6	Cons/3171/20 16-17	Analysis of Wastewater Samples 4 Nos.	Dr. S. K. Gupta, CI Dr. B. K. Mishra, CO-CI	CPWD Dhanbad
7	Cons/3172/20 16-17	Detailed Mineralogical Studies of Iron Ore Sample for M/s SGS India (P) Ltd.	Dr. P. R. Sahoo, CI Prof. A. S. Venkatesh, CO-CI	M/s SGS India (P) Ltd.
8	Cons/3173/20 16-17	Stabilization of Fractures and Cracks in Development galleries in seam no. R-II/III in Madhaipur Colliery Pandaveshwar Area.	Prof. U. K. Singh, CI	Madhaipur Colliery, ECL
9	Cons/3174/20 16-17	Geophysical Study to get the extent and depth of Workings of local seam beneath the Railway acquired land.	Dr.Sanjit Kr. Pal, CI Dr. U. K. Singh, CO-CI Prof. Shalivahan, CO-CI Prof. P. R. Mohanty, CO-CI	CV Area BCCL
10	Cons/3175/20 16-17	Testing of Coal Sampling.	Prof. N. R. Mandre, CI Dr. Shravan Kumar, CO-CI	AKA Logistic Pvt. Ltd.
11	Cons/3176/20 16-17	Testing of Coal Sampling.	Dr. Shravan Kumar, CI Prof. N. R. Mandre, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17
12	Cons/3177/20 16-17	DGPS Survey and Preparation of Georeferenced Cadastral Map of Tummappalle Uranium Mine of M/s UCIL	Dr. Dheeraj Kumar, CI Md. SoyebAlam, CO-CI	UCIL
13	Cons/3178/20 16-17	Monitoring of Underwater Drilling and Blasting process for Controlling Ground Vibration and Air over pressure during the Deepening of the Entrance Channel.	Prof V. M. S. R. Murthy, CI	Vishakhapatnam Port Trust
14	Cons/3179/20 16-17	Analysis of Coal samples from Obara Thermal Power Station.	Dr.ShaliniGautam, CI Sri S. Soren, CO-CI	VidyutUrtpada n Nigam Ltd. Obara - 19
15	Cons/3180/20 16-17	Suitability test Water of Tata Steel Jamadoba	Prof. S. K. Gupta, CI	Tata Steel Jamadoba
16	Cons/3181/20 16-17	Testing of Coal Samples.	Prof. N. R. Mandre, CI Dr. Shravan Kumar, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17
17	Cons/3182/20 16-17	Testing of Coal Samples.	Dr. Shravan Kumar, CI Prof. N. R. Mandre, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
18	Cons/3183/20 16-17	Evaluation of performance and behavior of Safety Instruments and Monitoring of Noise and airborne respirable dust and Analysis and Interpretation of gas samples of Chasnalla Colliery, SAIL	Prof. D. C. Panigrahi, CI	Chasnalla Colliery, SAIL
19	Cons/3184/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety instruments of Phularitand Colliery, BCCL	Prof. D. C. Panigrahi, CI	Phularitand Colliery, BCCL
20	Cons/3185/20 16-17	Evaluation of performance and behavior of firefighting Chemical Fico Chem of PVR Inshield Bituminous Pvt. Ltd.	Prof. D. C. Panigrahi, CI	PVR Inshields Bituminous Pvt. Ltd.
21	Cons/3186/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety instruments of Dharam Incline, SECL	Prof. D. C. Panigrahi, CI	Dharam Incline, SECL
22	Cons/3187/20 16-17	Field Investigations, Modelling and Simulation Studies for Designing the Ventilation System of RajpuraDariba Mines, HZL (3rd Year)	Prof. D. C. Panigrahi, CI	RajpuraDariba Mines, HZL
23	Cons/3188/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety instruments of Kuju Colliery, CCL	Prof. D. C. Panigrahi, CI	Kuju Colliery, CCL
24	Cons/3189/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Rescue Room, Balgi, SECL	Prof. D. C. Panigrahi, CI	Rescue Room Balgi, SECL
25	Cons/3190/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Chhatrapur Mine No.1 Chhatrapur Mine No.2 and Sobhapur Mine, WCL	Prof. D. C. Panigrahi, CI	Chhaprapur Mine No.1 & 2 and Sobhapur Mine, WCL
26	Cons/3191/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Tawa 2 Mine, Patherkhera Area WCL	Prof. D. C. Panigrahi, CI	Tawa 2 Mine Patherkhera Area WCL
27	Cons/3192/20 16-17	Suitability test of treated water of PB Area BCCL	Dr. B. K. Mishra, CI	PB Area, BCCL
28	Cons/3193/20 16-17	Suitability test of Mine and treated Water of CV Area	Dr. B. K. Mishra, CI	BCCL Barakar
29	Cons/3194/20 16-17	Testing of Coal Samples	Prof. N. R. Mandre, CI Dr. Shravan Kumar, CO-CI	AKA Logistic Pvt. Ltd.
30	Cons/3196/20 16-17	Assessment of Ground Water and Surface Water at Muri	Dr. B. K. Mishra, CI	Hindalco Industries Ltd. Muri, Ranchi
31	Cons/3197/20 16-17	Evaluation of performance and behavior of mine Safety Instruments and Analysis and Interpretation of Mines air Samples of Bhagaband Colliery, BCCL	Prof. D. C. Panigrahi, CI	Bhagaband Colliery, BCCL
32	Cons/3198/20 16-17	Analysis and Interpretation of Mine air Samples of Haripur Colliery, ECL	Prof. D. C. Panigrahi, CI	Haripur Colliery, ECL
33	Cons/3199/20 16-17	Analysis and Interpretation of Mine air Samples of Parbelia Colliery, ECL	Prof. D. C. Panigrahi, CI	Parbelia Colliery, ECL
34	Cons/3200/20 16-17	Analysis and Interpretation of Mine air Samples of Orient 1 & 2 Colliery, MCL	Prof. D. C. Panigrahi, CI	Orient 1 & 2 Colliery, MCL
35	Cons/3201/20 16-17	Evaluation of performance and behavior of Mine Safety Instruments and Analysis and Interpretation of Mine air Samples of Dhemomain Pit Colliery, ECL	Prof. D. C. Panigrahi, CI	Dhemomain Pit Colliery, ECL

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
36	Cons/3202/20 16-17	Evaluatio of performance and Bbehavior of Mine Ventilation and Safety Instruments of Sobhapur Colliery and Patherkhera Area, WCL	Prof. D. C. Panigrahi, CI	Sobhapur Colliery and Patherkhera Area, WCL
37	Cons/3203/20 16-17	Analysis and Interpretation of Mine air Samples of Ningha Colliery, ECL	Prof. D. C. Panigrahi, CI	Ningha Colliery, ECL
38	Cons/3204/20 16-17	Analysis and Interpretation of Mine air Samples of Narsamuda Colliery, ECL	Prof. D. C. Panigrahi, CI	Narsamuda Colliery, ECL
39	Cons/3205/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Kanhan Area, WCL	Prof. D. C. Panigrahi, CI	Kanhan Area, WCL
40	Cons/3206/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Ghusik(R) Colliery, ECL	Prof. D. C. Panigrahi, CI	Ghusik ® Colliery, ECL
41	Cons/3207/20 16-17	Evaluation of performance and behavior of firefighting Chemical FF Chem of Calcutta Mining scalants P vt. Ltd.	Prof. D. C. Panigrahi, CI	FF Chem of Calcutta Mining Sealants Pvt. Ltd.
42	Cons/3210/2- 16-17	Evaluation of performance and behaviour of Mine Ventilation and Safety instruments of Duberwari Colliery, ECL	Prof. D. C. Panigrahi, CI	Dubeswari Colliery, ECL
43	Cons/3211/20 16-17	Evaluation of performance and behaviour of Safety instruments and monitoring of noise and airborne respirable dust, and analysis and interpretation of gas samples of JitpurColliery, SAIL	Prof. D. C. Panigrahi, CI	Steel Authority of India Ltd.
44	Cons/3212/20 16-17	Testing of Coal Samples.	Dr. Shravan Kumar, CI Prof. N. R. Mandre, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17
45	Cons/3213/20 16-17	Testing of Coal Samples	Prof. N. R. Mandre, CI Dr. Shravan Kumar, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17
46	Cons/3215/20 16-17	Off Campus course for a day on Building on Intelligent Mine on 29/1/2016 at Pune.	Prof. A. K. Mishra, CI	Accenture Pune
47	Cons/3216/20 16-17	Determination of slake durability Index of aggregates of M/s KNIL Supplied by NTPC, Lara, CG.	Prof. A. K. Mishra, Ci	National Thermal Power Corp. Ltd. (NTPC)
48	Cons/3217/20 16-17	Field Investigation, Modelling and Redesign of Ventilation Systems for Gare Palma IV/5 Coal Mine of Hindalco Industries Ltd. Raigarh.	Prof. D. C. Panigrahi, CI	Hindalco Industries Ltd. Raigarh
49	Cons/3218/20 16-17	Ecology and Biodiversity (EB) and Soil conservation (SC) component of Kusmunda OC Expansion project (50 MTPA)	Dr. Anshumali, CI	CMPDIL, Ranchi
50	Cons/3223/20 16-17	Determination of Slake durability Index of aggregates of M/s AMR Supplied by NTPC Lara, CG	Prof. A. K. Mishra, CI	NTPC Ltd.
51	Cons/3225/20 16-17	DGPS survey of Leare Boundary Pillars of Dhobil and Ajhitaburu Mining Leaser of Manoharpur Iron Ore Mines (MOM), SAIL	Dr. Dheeraj Kumar, CI	SAIL Ltd.

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
52	Cons/3226/2016-17	To define Mechanized, Semi-Mechanized and Manual Mining Methods for river bed sand Mining and their environmental Implications.	Prof. Phalguni Sen, CI Dr. R. K. Sinha, CO-CI	Jai Yamuna JI Developers Karnal - 1
53	Cons/3227/2016-17	Coal Samples Analysis	Prof. V. K. Saxena, CI	DVC BTPS
54	Cons/3229/2016-17	Testing of Coal Samples	Dr. Shravan Kumar, CI Prof. N. R. Mandre, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17
55	Cons/3231/2016-17	Scientifica study on Blasthole Scanning for Geological and Structural Profile Mapping in Agucha Mines.	Prof. V.M.S.R. Murthy, CI	CSIR, CIMFR
56	Cons/3232/2016-17	Physico Mechanical test of Core Samples of Khairaha Underground Mine, SECL Supplied by JMS Mining Services Pvt. Ltd.	Prof. A. K. Mishra, CI	JMS Mining Services Pvt. Ltd. Kolkata-91
57	Cons/3233/2016-17	Study of Strata behavior at Continuous Miner District Sub Panel (P-15 to P-16) in R-VII Seam at Sripur Project of Shyamsundarpur Colliery Bankola Area, ECL	Prof. A. K. Mishra, CI	ECL Bankola Area shyamsundarpur Colliery, ECL
58	Cons/3234/2016-17	Geo-referencing of Cadastral Map of Chasnala, Tasra and Jitpur Coal Block of SAIL-ISP into WGS 84 Coordinates.	Dr. Dheeraj Kumar, CI	SAIL-ISP
59	Cons/3237/2016-17	Geo-rferencing of cadastral Map of Sitanala Coal Block of Chasnalla Colliery, SAIL	Dr. Dheeraj Kumar, CI	SAIL, ISP
60	Cons/3238/2016-17	DGPS survey of Lease Boundary Pillars of Mclellan Mining Leases of Manoharpur Iron Ore Mines (MOM) SAIL	Dr. Dheeraj Kumar, CI	SAIL
61	Cons/3239/2016-17	Determination of Bulk Density of one coal samples of XVI Seam Moonidih Colliery INDUZMJ Zhengzhou-Xinfeng Consortium	Prof. D. C. Panigrahi, CI	Moonidih Colliery Indusmj Zhengzhou-Dinefeng Consortium, BCCL
62	Cons/3240/2016-17	Evaluation of performance and behavior of mine Ventilation and Safety Instruments of Murapur UG Mine, WCL	Prof. D. C. Panigrahi, CI	Marapur UG Mine, WCL
63	Cons/3241/2016-17	Evaluation of performance and behavior of SCSRs of KB 10/12 Pits Colliery, BCCL	Prof. D. C. Panigrahi, CI	SCSRs of KB 10/12 Pits Colliery, BCCL
64	Cons/3242/2016-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of MRs Dhansar, Dhanbad	Prof. D. C. Panigrahi, CI	Mines Rescue Station Dhanbad, Dhanbad
65	Cons/3243/2016-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of AB Incline, WCL	Prof. D. C. Panigrahi, CI	AB Incline WCL
66	Cons/3244/2016-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Saoner Sub Area, WCL	Prof. D. C. Panigrahi, CI	Saoner sub Area, WCL
67	Cons/3245/20	Evaluation of performance and behavior of	Prof. D. C. Panigrahi, CI	Madhabpur

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
	16-17	Mine Safety Instruments and Analysis and Interpretation of Mine air Samples of Madhabpur Colliery Kajora Area ECL		Colliery Kajora Area, ECL
68	Cons/3246/20 16-17	Analysis and Interpretation of Mine Air Samples of Madhujore Colliery Kajora Area, ECL	Prof. D. C. Panigrahi, CI	Madhujore Colliery Kajora Area, ECL
69	Cons/3247/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Mekon International, Dhanbad	Prof. D. C. Panigrahi, CI	Mekon International, Dhanbad
70	Cons/3248/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Kankanee Colliery, BCCL	Prof. D. C. Panigrahi, CI	Kankanee Colliery, BCCL
71	Cons/3249/20 16-17	Evaluation of performance and behavior of Mine Safety Instruments and Analysis and Interpretation of Mine Air Samples of Chapapur Colliery, ECL	Prof. D. C. Panigrahi, CI	Chapapur Colliery, ECL
72	Cons/3250/20 16-17	Evaluation of performance and behavior of Mine Safety Instruments and Analysis and Interpretation of Mine Air Samples of Sawang Colliery, CCL	Prof. D. C. Panigrahi, CI	Sawang Colliery, CCL
73	Cons/3251/20 16-17	An Investigation into the Violent ejection of perlite to the atmosphere and damage to the cold box in the Oxygen Plant of Electro Steel Ltd.	Dr. Subrata Kumar Ghosh, CI	Electrosteel Steel Ltd.
74	Cons/3252/20 16-17	Soil and fly-ash Characteristics Study	Dr. Vipin Kumar, CI	Bharat Aluminium Co. Ltd., Korba
75	Cons/3253/20 16-17	Determination of Cechar Abrasivity Index of Some Coal Samples.	Prof. V.M.S.R. Murthy, CI	Almil Ltd. New Delhi
76	Cons/3254/20 16-17	Field Investigations, Modelling and Simulation Studies for designing the Ventilation Systems of all UCIL Mines (Part - I 1st year work) Jaduguda.	Prof. D. C. Panigrahi, CI	UCIL, Jaduguda
77	Cons/3255/20 16-17	Analysis and Interpretation of Mine air samples of Jarangdih Colliery, CCL	Prof. D. C. Panigrahi, CI	Jarangdih Colliery, CCL
78	Cons/3256/20 16-17	Evaluation of performance and Behavior of Mine Ventilation and Safety Instruments of Johila Area, SECL	Prof. D. C. Panigrahi, CI	Johila Area SECL
79	Cons/3257/20 16-17	Testing of Coal Samples.	Dr. Shraavan Kumar, CI Prof. N. R. Mandre, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17
80	Cons/3258/20 16-17	Determination of overall Stripping ratio of Parbatpur Quarry and Georeferencing of Cadastral map of Parbatpur Central Coal Mine.	Dr. Dheeraj Kumar, CI Prof. P. Sen, CO-CI	SAL
81	Cons/3259/20 16-17	Determination of Striping ratio of Salanbpur C Quarry of Ramnagore Colliery.	Dr. Dheeraj Kumar, CI Prof. P. Sen, CO-CI	Ramnagore Colliery, SAIL
82	Cons/3260/20 16-17	Identification & Demarcation of Boundry under Surda Mining Lease Area (total 388.68 hectares) by Cadastral Survey and Preparation of Digital Geo-referenced map & Generation of Geo-Referenced Shape files by DGPS survey of that Area.	Dr. Dheeraj Kumar, CI Dr. VV Govind Kumar, CO-CI	IIC Mining Projects

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
83	Cons/3261/20 16-17	DGPS Survey of Intermediate Pillars (Broken Area) for Geo Referencing of Cadastral Map and diverted Area Map of Kiriburu - Meghahahtuburu Iron Ore Mines of M/s SAIL into WGS - 84 Co-ordinates and Preparatio of Shape files for Submission to MoEF& CC	Dr. Dheeraj Kumar, CI Dr. VV Govind Kumar, CO-CI	SAIL
84	Cons/3265/20 16-17	Proximate Analysis of Coal Sample Received from Rajganj Thana, Dhanbad	Dr. Shalini Gautam, CI	Rajganj Thana, Dhanbad
85	Cons/3268/20 16-17	Field investigations Modelling and design of Ventilation system for Mochia, Balaria Baroj and Zawarmala Mines (Zawar Group of Mines) Hindustan Zinc Ltd. And Association of Indian School of Mines for 3rd years to Implement the recommended Ventilation System for Increasing the Production of the Mines.	Prod. D. C. Panigrahi, CI	HZ Ltd.
86	Cons/3269/20 16-17	Analysis and Interpretation of Mine air Samples of Haripur Colliery, ECL	Prof. D. C. Panigrahi, CI	Haripur Colliery, ECL
87	Cons/3270/20 16-17	Evaluation of Performance and Behavior of Mine Ventilation and Safety Instruments of Baraoud OCM, SECL	Prof. D. C. Panigrahi, CI	Baraoud OCM, SECL
88	Cons/3271/20 16-17	Evaluation of Performance and Behavior of Mine Ventilation and Safety Instruments of Tetulmari Colliery, BCCL	Prof. D. C. Panigrahi, CI	Tetulmari Colliery, BCCL
89	Cons/3272/20 16-17	Technical Consultant for guiding SAIL in the e-auction of Coal Block (Parbatpur Central Coal Block)	Prof. A. K. Singh, CI	Parbatpur Central Coal Block, BCCL
90	Cons/3273/20 16-17	Calibration of two force Measuring devices (100 kN, & 2000 kN capacity) of Muva Industries Ltd. As per IS: 4169:1988 in Compression.	Prof. A. K. Mishra, CI	Muva Industries Ltd.
91	Cons/3274/20 16-17	Testing of Ground Water Quality Kinandul NMDC	Dr. Anshumali, CI Prof. A. K. Singh, CO-CI	NMDC Ltd. Hyderabad.
92	Cons/3275/20 16-17	Monitoring of Ground Vibration due to deep hole blasting.	Prof. V.M.S.R. Murthy, CI	LFS Engineering
93	Cons/3277/20 16-17	Testing of Coal Samples.	Dr. Shravan Kumar, CI Prof. N. R. Mandre, CO-CI	M/s Kanha Construction Jhansi
94	Cons/3278/20 16-17	Testing of Coal Samples	Prof. N. R. Mandre, CI Dr. Shravan Kumar, CO- CI	AKA Logistics Pvt. Ltd. Kolkata - 17
95	Cons/3279/20 16-17	Testing of Coal Samples	Dr. Shravan Kumar, CI Prof. N. R. Mandre, CO-CI	ECL Bankala Area
96	Cons/3283/20 16-17	Testing of Coal Samples	Dr. Shravan Kumar, CI Prof. N. R. Mandre, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17
97	Cons/3284/20 16-17	Mineral hardness of garnet sands of M/s SGS India (P) Ltd.	Prof. A. S. Venkatesh, CI Dr. P. R. Sahoo, CO-CI	SGS India (P) Ltd.
98	Cons/3287/20 16-17	Off Campus on Building an Intelligent Mine for aday for accenture Managers.	Prof. A. K. Mishra, CI	Accenture Pvt. Ltd.
99	Cons/3289/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of Gara Palma IV/5 Mines, Hindalco Industries Ltd.	Prof. D. C. Panigrahi, CI	Hindalco Industries Ltd.

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100	Cons/3290/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of Rik Sales and Services Ltd., dhanbad	Prof. D. C. Panigrahi, CI	Rik Sales & Services Ltd., Dhanbad
101	Cons/3291/20 16-17	Evaluation of performance and mine ventilation and safety instruments of Murlidih 20/21 Pits Colliery, BCCL	Prof. D. C. Panigrahi, CI	Murlidih 20/21 Pits Colliery, BCCL
102	Cons/3292/20 16-17	Analysis and interpretation of mine Air samples of Sodepur (R) Colliery, ECL	Prof. D. C. Panigrahi, CI	Sodepur ® Colliery, ECL
103	Cons/3293/20 16-17	Analysis and interpretation of mine Air samples of Shampur B Colliery, ECL	Prof. D. C. Panigrahi, CI	Shampur B Colliery, ECL
104	Cons/3294/20 16-17	Analysis and interpretation of mine Air samples of IDL Explosives Ltd. Dhanbad.	Prof. D. C. Panigrahi, CI	IDL Explosives, Ltd., Dhanbad
105	Cons/3295/20 16-17	Analysis and interpretation of mine Air samples of Khoodia Colliery, ECL	Prof. D. C. Panigrahi, CI	Khoodia Colliery, ECL
106	Cons/3296/20 16-17	Evaluation of performance and behavior of mine ventilation and safety Instruments of Saoner Sub Area, WCL	Prof. D. C. Panigrahi, CI	Saoner sub Area, WCL
107	Cons/3297/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of Rajur Incline Colliery, WCL	Prof. D. C. Panigrahi, CI	Rajur Incline Colliery, WCL
108	Cons/3298/20 16-17	Field investigations, modelling and design of ventilation system for Gare Palma IV/4 Coal mine Hindalco Limited, Raigarh	Prof. D. C. Panigrahi, CI	Hindalco Limited, Raigarh
109	Cons/3299/20 16-17	Testing of Coal Samples.	Dr. Shravan Kumar, CI Prof. N. R. Mandre, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17
110	Cons/3300/20 16-17	Feasibility Study of STP at West Bokaro Division (WBD)	Prof. S. K. Gupta, CI Dr. Alok Sinha, CO-CI	Tata Steel West Bokaro
111	Cons/3306/20 16-17	Evaluation of performance and behavior of ventilation and safety instruments of Kumardhubi Colliery, ECL	Prof. D. C. Panigrahi, CI	Kumardhubi Colliery, ECL
112	Cons/3307/20 16-17	Analysis and interpretation of gas samples of Kumardhubi Colliery, ECL	Prof. D. C. Panigrahi, CI	Kumardhubi Colliery, ECL
113	Cons/3308/20 16-17	Collection, Analysis and interpretation of gas samples of Western Jharia Area, BCCL	Prof. D. C. Panigrahi, CI	Western Jharia Area, BCCL
114	Cons/3309/20 16-17	Analysis and interpretation of gas samples of Jarangdih Colliery, CCL	Prof. D. C. Panigrahi, CI	Jarangdih Colliery, CCL
115	Cons/3310/20 16-17	Evaluation of performance and behavior of Ventilation and safety instruments of Phularitand Colliery, BCCL	Prof. D. C. Panigrahi, CI	Phularitand Colliery, BCCL
116	Cons/3311/20 16-17	Evaluation of performance and behavior of ventilation and safety instruments of Selwara Sub-Area, WCL	Prof. D. C. Panigrahi, CI	Selwara Sub-Area, WCL
117	Cons/3312/20 16-17	Evaluation of performance and behavior of ventilation and safety instruments of Lakhimata Colliery, ECL	Prof. D. C. Panigrahi, CI	Lakhimata Colliery, ECL
118	Cons/3313/20 16-17	Effluent analysis of Regional Hospital Baghmara.	Dr. B. K. Mishra, CI	Baghmara
119	Cons/3314/20 16-17	Blast design for conducting controlled Blasting with regard to blast Induced Vibration Control of flying fragments while working on the faces which are close to the Crushing Plant Structures.	Prof. A. K. Mishra, CI	Tirupati Viniyoge Pvt. Ltd.

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
120	Cons/3315/20 16-17	Preparatin of Environmental Statement Report for DVC Mines	Dr.Biswajit Paul, CI	DVC
121	Cons/3316/20 16-17	Joint Study with CSIR-CIMFR terms of the order of Honourable National Green Tribunal, Bhopal for taking up to the Job of extinguishing and containing fire and also Prevent it from further Spreading at Gare Palma IV/2 & 3 OCM Raigarh Area of SECL	Prof. V. K. Singh, CI Prof. D. C. Panigrahi, CO- CI	SECL, Raigarh (CG)
122	Cons/3319/20 16-17	Evaluation of performance and behavior of Mine Ventilation and safety instruments of Patherkhera, WCL	Prof. D. C. Panigrahi, CI	Patherkhera, WCL
123	Cons/3320/20 16-17	Analysis and interpretation of mine air samples of Dhemomain Colliery, ECL	Prof. D. C. Panigrahi, CI	Dhemomain Colliery, ECL
124	Cons/3321/20 16-17	Analysis and Interpretation of mine air Samples of Haripur Colliery, ECL	Prof. D. C. Panigrahi, CI	Haripur Colliery, ECL
125	Cons/3322/20 16-17	Analysis and interpretation of mine air samples of RSP PH-II UG Mine B & K Area, CCL	Prof. D. C. Panigrahi, CI	RSP PH-II UG Mine B&K Area, CCL
126	Cons/3323/20 16-17	Evaluation of performance and behavior of fire retardant sealant brand name "Fire Shield"Calcutta Mining sealants Pvt. Ltd.	Prof. D. C. Panigrahi, CI	Calcutta Mining sealants Pvt. Ltd.
127	Cons/3324/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of Sodepur Colliery, ECL	Prof. D. C. Panigrahi, CI	Sodepur Colliery, ECL
128	Cons/3325/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of Sobhapur Colliery, WCL	Prof. D. C. Panigrahi, CI	Sobhapur Colliery, WCL
129	Cons/3326/20 16-17	Evaluation of performance and behavior of fire retardant sealant brand name "Coal shield"PVTinshield Bituminous Pvt. Ltd.	Prof. D. C. Panigrahi, CI	PVT Inshield Bituminous Pvt. Ltd.
130	Cons/3327/20 16-17	Evaluation of performance and behavior of mine ventiation and safety instruments of Talcher Colliery, MCL.	Prof. D. C. Panigrahi, CI	Talcher Colliery, MCL
131	Cons/3328/2- 016-17	Analysis and interpretation of mine air samples Methoni Colliery, ECL	Prof. D. C. Panigrahi, CI	Methani Colliery, ECL
132	Cons/3330/20 16-17	Testing of Coal Samples.	Prof. N. R.Mandre, CI Dr.Sharvan Kumar, CO-CI	AKA Logistics Pvt. Ltd. Kolkata - 17
133	Cons/3333/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Silwara Sub Area WCL	Prof. D. C. Panigrahi, CI	Silwara Sub Area, WCL
134	Cons/3334/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Saoner Sub Area, WCL	Prof. D. C. Panigrahi, CI	Saoner Sub Area, WCL
135	Cons/3335/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Khotadih Colliery, ECL	Prof. D. C. Panigrahi, CI	Khotadih Colliery, ECL
136	Cons/3336/20 16-17	Evaluation of performance and behaviour of Mine Ventilation and Safety Instruments of Shampur B Incline ECL	Prof. D. C. Panigrahi, CI	Shampur B Incline, ECL
137	Cons/3337/20 16-17	Seismic Refraction Tomography study in TrishuliGalchhi Hydroelectric Project in Nepal.	Dr. S. K. Pal, CI Dr. U.K. Singh, CO-CI, Prof. Shalivhan, CO-CI Prof. P. R. Mohanty, CO- CI	Excelling Geo & Engineering (EGE) ConsultanPvt. Ltd.

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
138	Cons/3338/20 16-17	Correlation Survey of Digwadih Colliery	Dr. Dheeraj Kumar, CI	Tata Steel Ltd.
139	Cons/3340/20 16-17	Joint Development Activities Between ISM & BASF India Ltd. Mumbai for Introduction of Chemical Technology in Ventilation/Water/Gas Seepage/fire Isolation in Mines.	Prof. D. C. Panigrahi, CI	BASF India Ltd. Mumbai
140	Cons/3341/20 16-17	Mining Geological Aspects of Bulk Density Determination of Iron ore other rock types Associated with Iron Ores & Report Preparation for M/S Tata Stee.	Prof. A. S. Venkatesh, CI Dr. P. R. Sahoo, CO-CI	Tata Steel Ltd.
141	Cons/3343/20 16-17	Scientific Study of Stability underlying Strata of 1 seam (Geo. II Bottom Seam) in Bera Open cast Mine.	Prof. A. K. Mishra, CI Shri P. K. Behera, CO-CI	Bera Colliery, BCCL
142	Cons/3344/20 16-17	Physico Mechanical Properties of Coal Samples of Khairaha Underground Mine SECL Supplied by JMS Mining Service Pvt. Ltd.	Prof. A. K. Mishra, CI	JMS Mining Service Pvt. Ltd., SECL
143	Cons/3347/20 16-17	Carrying our risk assessment study on hazards and preparation of safety management plan in NLC mines.	Prof. R. M. Bhattacharjee, CI	NLC, Mines
144	Cons/3349/20 16-17	Determination of specific gravity of one coal sample each from RVII and RVIIA sem, C, B, incline (UG/OC and Banabahal OC Patch), New Kenda Area, ECL	Prof. D. C. Panigrahi, CI	New Kendra Area, ECL
145	Cons/3350/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Kanhan Area, WCL	Prof. D. C. Panigrahi, CI	Kanhan Area, WCL
146	Cons/3351/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of R.R. Urimari UG, CCL	Prof. D. C. Panigrahi, CI	R.R. Urimari UG, CCL
147	Cons/3352/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of BasantimatiDahibari Colliery, ECL	Prof. D. C. Panigrahi, CI	BasantimatiDahibari, ECL
148	Cons/3353/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of Bararee Colliery, BCCL	Prof. D. C. Panigrahi, CI	Bararee Colliery, BCCL
149	Cons/3354/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of Madhujore Colliery, ECL	Prof. D. C. Panigrahi, CI	Madhujore Colliery ECL
150	Cons/3355/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of Mine Rescue Station Dhansar, BCCL	Prof. D. C. Panigrahi, CI	Mine Rescue Station, Dhansar, BCCL
151	Cons/3356/20 16-17	Evaluation of performance and behavior of mine ventilation and safety instruments of Mine Rescue Station, Ramgarh, CCL	Prof. D. C. Panigrahi, CI	Mine Rescue Station, Ramgarh, CCL
152	Cons/3357/20 16-17	Testing of coal Samples.	Dr. Shravan Kumar, CI Dr. ShaliniGautam, CO-CI	AKA Logistics Pvt. Ltd. Kolkata – 17
153	Cons/3363/20 16-17	Scientific Study of Geotechnical Parameters and determination of RMR of Jogidih 1 Seam, BCCL	Prod. A. K. Mishra, CI	Jogidih, BCCL

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154	Cons/3364/20 16-17	Scientific Study for Designing Blast Rounds to produce required Sizes of Rocks for Marine and Onshore Facilities Works and Planning for Yield Analysis at jafrabad Project, Gujarat Phase - I	Prof. VMSR Murthy, CI Dr. B. S. Choudhary, CO-CI Prof. P. Sen, CO-CI Prof. A. S. Venkatesh, CO-CI	Dharti Dredging and Infrastructure Ltd.
155	Cons/3366/20 16-17	Detailed Project Report for Establishment of a College of Engineering at Singrauli, MP and Presentation at Bhopal.	Prof. A. K. Mishra, CI Prof. D. C. Panigrahi, CO-CI	Bhopal
156	Cons/3367/20 16-17	Environmental Impact Study of Back filling of Chotia Mines with fly-ash.	Dr. Vipin Kumar, CI	Bharat Aluminium Co. Ltd.
157	Cons/3369/20 16-17	Analysis of Coal samples of Patherdih Coal Washery, BCCL	Dr. Sharvan Kumar, CI Prof. N. R. Mandre, CO-CI	Patherdih Coal Washery, BCCL
158	Cons/3371/20 16-17	Testing of Coal Samples.	Dr. Sharvan Kumar, CI Prof. N. R. Mandre, CO-CI	Koyla Bhawan, BCCL
159	Cons/3373/20 16-17	DGPS Survey and preparation of Georeferenced Cadastral Map of GOGI Uranium Mine of UCIL.	Dr. Dheeraj Kumar, CI Md. Soyeb Alam, CO-CI	UCIL
160	Cons/3374/20 16-17	Identification & Demarcation of Area under Sand Mining Leases of Tata steel, Jharia Division by DGPS Survey and Preparation of Geo-referenced Cadastral Map of the Mining Leases.	Dr. Dheeraj Kumar, CI Dr. V.V. Govind Kumar, CO-CI	Tata Steel
161	Cons/3376/20 16-17	Proof Checking of two box bridges for railway Loading.	Prof. S.C. Dutta, CI Dr. S. K. Panda, CO-CI Dr. Sauket Nayak, CO-I	Rites Limited, Kolkata
162	Cons/3377/20 16-17	Slake Durability Index of Coal Samples of Bahraband Underground Mine, SECL, Supplied by JMS Mining Services Pvt. Ltd.	Prof. A. K. Mishra, CI	JMS Mining Services Pvt. Ltd.
163	Cons/3378/20 16-17	Social Impact Study of three Washeries of BCCL	Prof. A. K. Pal, CI Dr. Biswajit Paul, CO-CI	Cil, Kolkata
164	Cons/3379/20 16-17	Testing of Construction Materials.	Dr. S. K. Panda, CI Dr. Sanket Nayak, CO-CI Dr. Tanish Dey, CO-CI Dr. S. Choudhury, CO-CI Dr. S. S. Mohapatra, CO-CI	Jharia Rehabilitation and Development Authority, Dhanbad.
165	Cons/3380/20 16-17	Testing of Construction Materials.	Dr. S. K. Panda, CI Dr. Sanket Nayak, CO-CI Dr. Tanish Dey, CO-CI Dr. S. Choudhury, CO-CI Dr. S. S. Mohapatra, CO-CI	Jharia Rehabilitation and Development Authority, Dhanbad.
166	Cons/3381/20 16-17	Proximate analysis on equilibrated basis and determination of coking parameters.	Prof. V. K. Saxena, CI	BCCL
167	Cons/3382/20 16-17	Sampling and Analysis of Sudamdih Coal Washery Slurry.	Prof. N. Suresh, CI	SGS India (P) Ltd.
168	Cons/3383/20 16-17	Testing of Coal Sample.	Dr. Shravan Kumar, CI	M/s Kanha Construction Jhansi
169	Cons/3384/20 16-17	Scientific study for Establishing Best Blasting Practice at Gere (Gaya) Block No.3 Stone Quarry of M/s NEC Ltd.	Prof. VMSR Murthy, CI Dr. B. S. Choudhary, CO-CI	Nuvayuga engineering Col. Ltd.

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170	Cons/3385/20 16-17	Testing of Coal Samples.	Dr. Shravan Kumar, CI Prof. N. R. Mandre, CO-CI	BCCL, Dhanbad
171	Cons/3388/20 16-17	Mineral Hardness of Garnet Sands for M/S SGS India Private Ltd.	Prof. A. S. Venkatesh, CI Dr. P. R. Sahoo, CO-CI	M/s SGS India (P) Ltd.
172	Cons/3390/20 16-17	Evaluation of performance and behavior of ventilation and Safety Instruments of Mekon International Dhanbad.	Prof. D. C. Panigrahi, CI	Mekon International, Dhanbad
173	Cons/3391/20 16-17	Evaluation of performance and behavior of ventilation and Safety Instruments of Sayal D Colliery, CCL	Prof. D. C. Panigrahi, CI	CCL Sayal D Colliery
174	Cons/3392/20 16-17	Evaluation of performance and behavior of Ventilation and Safety Instruments of Mandaman Colliery, ECL	Prof. D. C. Panigrahi, CI	ECL Mandaman Colliery
175	Cons/3393/20 16-17	Evaluation of performance and behavior of Ventilation and Safety Instruments of Shyampur B Colliery, ECL	Prof. D. C. Panigrahi, CI	Shampur B Colliery, ECL
176	Cons/3394/20 16-17	Analysis and Interpretation of air Samples of SSI Colliery, ECL	Prof. D. C. Panigrahi, CI	SSI Colliery, ECL
177	Cons/3395/20 16-17	Evaluation of performance and behavior of Ventilation and Safety Instruments of Tawa-I Mine.	Prof. D. C. Panigrahi, CI	Tawa-I Mine, SECL
178	Cons/3396/20 16-17	Evaluation of performance and behavior of Ventilation and Safety Instruments of Bera Colliery, BCCL	Prof. D. C. Panigrahi, CI	Bera Colliery, BCCL
179	Cons/3397/20 16-17	Evaluation of performance and behavior of Ventilation and Safety Instruments of Argada Colliery, CCL	Prof. D. C. Panigrahi, CI	Argada Colliery, CCL
180	Cons/3398/20 16-17	Analysis of Interpretation of gas Samples of Haripur Colliery, ECL	Prof. D. C. Panigrahi, CI	Haripur Colliery, ECL
181	Cons/3399/20 16-17	Evaluation of Performance and behavior of Ventilation and Safety Instruments of Silwara Sub Area WCL	Prof. D. C. Panigrahi, CI	Silwara Sub Area, WCL
182	Cons/3400/20 16-17	Evaluation of performance and behavior of Ventilation and Safety Instruments of bhowrah (W) Mine, BCCL	Prof. D. C. Panigrahi, CI	Bhowrah (N) Mine, BCCL
183	Cons/3401/20 16-17	Evaluation of performance and behavior of Ventilation and Safety Instruments of MRS Dhansar, BCCL	Prof. D. C. Panigrahi, CI	MRS Dhansar, BCCL
184	Cons/3405/20 16-17	Determination of RMR of Pair of inclines from surface to XV Seam underground and design of Support Indu-SCCL CGME Consortium.	Shri P. K. Behera, CI	Indu SCCL CGME Consortium
185	Cons/3406/20 16-17	Determination of Properties of the Supplied rock samples for stone wire crates as per is standard supplied by NTPC, Lara CG.	Prof. A. K. Mishra, CI	NTPC, Lara, CG
186	Cons/3408/20 16-17	Environmental Audit of Matrix Fertiliz by Third Party.	Dr. B. K. Mishra, CI Dr. Alok Sinha, CO-CI	Matix Fertilisers and Chemicals Ltd., Burdwan, W.B.
187	Cons/3409/20 16-17	Evaluation of performance and behavior of Mine Ventilation and Safety Instruments of Mekon International, Dhanbad	Prof. D. C. Panigrahi, CI	Mecon International, Dhanbad
188	Cons/3410/20 16-17	Scientific Study for reopening of Panel M- 9 of 7A1 (Top) Seam of Malga Colliery, Hasdeo area, SECL	Prof. D. C. Panigrahi, CI	Malga Colliery, Hasdeo Area,

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
189	Cons/3411/20 16-17	Evaluation of performance and Behavior of Mine Ventilation and Safety Instruments of Kenda Area, ECL	Prof. D. C. Panigrahi, CI	Kenda Area, ECL
190	Cons/3412/20 16-17	Testing of Construction Meterials.	Dr. S. K. Panda, CI Dr.SanketNayak, CO-CI Dr.TanishDey, CO-CI Dr. S. Choudhury, CO-CI Dr. S. S. Mohapatra, CO-CI	JRDA Dhanbad
191	Cons/3413/20 16-17	Testing of Coal Samples	Dr. Shravan Kumar, CI Prof. N. Suresh, CO-CI	AKA Logisties PVT. Ltd.
192	Cons/3414/20 16-17	Determination of Specific Gravity of Seven Coal Samples (two Samples from RVII Seam, two Samples from RVIIA seam and three samples RVI Seam) of Jhajra Project Colliery, ECL	Prof. D. C. Panigrahi, CI	Jhanjra Project, ECL
193	Cons/3415/20 16-17	Learn from Earch other (LEO) Workshop, SAIL Ranchi	Prof. R. Venugopal, CI	SAIL, Ranchi
194	Cons/3416/20 16-17	Testing of Rock Cores of Parbati Hydro Project M/s Gammon-CMC Joint Venture.	Prof. VMSR Murthy, CI	Cammon-CMC Joint Venture Distt. Kullu.
195	Cons/3417/20 16-17	Scientific Study for Controlling The Ground Vibrations and Improving The dragline Productivity in DudhiChua and Nigahi Mines, Singrauli, NCL	Prof. VMSR Murthy, CI Prof. V. K. Singh, CO-CI Dr. B.S. Choudhary, CO-CI	NCL
196	Cons/3418/20 16-17	Testiing of Construction Meterial.	Dr. S. K. Panda, CI	JRDA Dhanbad
197	Cons/3419/20 16-17	Geological investigations to Evaluate Reserve of Meterial available in Situ at Khanak Stone Mines Tehsil Tosham	Prof. A. S. Venkatesh, CI Dr. P. R. Sahoo, CO-CI Dr. Dheeraj Kumar, CO-CI	Khanak Stone Mines Tehsil Tosham, Bhiwani
198	Cons/3421/20 16-17	Proof Checking of Drawings for National Memorial of Dr. APJ Abdul Kalam at Rameswaram.	Prof. S. C. Dutta, CI Dr. S. K., Panda, CO-CI Dr.SanketNayak, CO-CI	Govt. of India Ministry of Defence DRDO, New Delhi
199	Cons/3422/16- 17	Off-Campus Course on Advance Geostatistics for HZL Geoscientists During 13 - 17 Feb., 2017	Prof. B. C. Sarkar, CI	Hindustan Zinc Ltd. (Vedanta) Udaipur.
200	Cons/3424/20 16-17	Preparation of course Module for Controlled Blasting.	Prof. A. K. Mishra, CI Prof. D. C. Panigrahi, CO-CI	
201	Cons/3425/20 16-17	Testing of Construction Meterials.	Dr. S. Nayak,CI	JRDA Dhanbad
202	Cons/3426/20 16-17	Testing of Construction Meterials.	Dr. S. Nayak,CI	JRDA Dhanbad
203	Cons/3427/20 16-17	Mining and Environment	Dr.Biswajit Paul, CI	ADANI Enterprises Ltd.
204	Cons/3428/20 16-17	Scientific study for designing Blast Rounds to Proeuce Required Sizes of Rocks for Marine and Onshore Facilities Works and Planning for Yield Analysis at Jafrabad Project, Gujrat (PHASE-2)	Prof. VMSR Murthy, CI Dr. B. S. Choudhary, CO-CI	Dharti Dredging and Infrastructure Ltd.

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
205	Cons/3429/20 16-17	Techno Ecibinuc Study for Transportation of Ash from NTPC Korba to Bishrampur&Manikpur Open Cast Mines for its Utilization.	Prof S. K. Gupta, CI Dr. S. R. Samaddar, CO-CI	NTPC Limited. Korba
206	Cons/3430/20 16-17	Socio-economic Survey and Rehabilitation Studies of Adani Enterprises Ltd. Mines.	Dr.Biswajit Paul, CI Prof. A. K. Singh, CO-CI	ADANI Enterprises Ltd. Mines
207	Cons/3431/20 16-17	Designing Detailed Blasting Scheme for Land Development Through Controlled Rock Blasting at navi Mumbai International Airport Packages I to IV and Allied Excavation.	Dr. B. S. Choudhary, CI Prof VMSR Murthy, CO-CI	DRDO
208	Cons/3432/20 16-17	Scientific study for controlled blasting at Bagaiya Stone Quarry Chattarpur, Jharkhand.	Prof. VMSR Murthy, CI	Bagaiya Stone Mines, Chattarpur, Jharkhand.
209	Cons/3433/20 16-17	DGPS Survey of Demarked Lease Boundary Pillars of existing lease hold area, old lease hold area & forest area of Tulsidamar Dolomite Mines, SAIL and Geo-referencing of cadastral map of Ghagra, Gorgaon, and Saraiya mining leases of Bhawnathpur Group of Mines, SAIL into WGS 84 coordinates.	Dr. Dheeraj Kumar, CI	SAIL
210	Cons/3435/20 16-17	One day Workshop at Tata Steel R & D	Prof. R. Venugopal, CI	TATA
211	Cons/3437/20 16-17	Blast design & optimization of the drilling & Blasting Pattern for all underground and open works at Ellanthakunta in Karimnagar Dist. Telangana state.	Prof. A. K. Mishra, CI Prof. D. C. Panigrahi, CO-CI	Ellanthakunta in Karim nagarDist of Telangana State
212	Cons/3438/20 16-17	Blast design for conducting controlled blasting with regard to blast induced vibration, control of flying fragments while working on the faces which are close to structures at masonry stone mines, situated at Bakhrija Plot 4, village-Bakhrija, TehsitNarnaul, Haryana.	Prof. A. K. Mishra, CI Dr. B. S. Choudhary, CO-CI	Gradient Business Consulting Pvt. Ltd., Haryana
213	Cons/3439/20 16-17	Determination of Physical Properties of High Set Remote Prop Supplied by PVR Inshield Bituminous Pvt. Ltd.	Prof. A. K. Mishra, CI	PVR Inshields Bituminous Pvt. Ltd. Burdwan
214	Cons/3440/20 16-17	Determination of Physical Properties of High set Remote Prop Supplied by Boldie Mining sealants Pvt. Ltd.	Prof. A. K. Mishra, CI	Boldie Mining Sealants Pvt. Ltd. Burdwan
215	Cons/3441/20 16-17	Determination of Physical Properties of Cement Capsule Supplied By Sujua Area BCCL	Prof. A. K. Mishra, CI	Sijua Area BCCL
216	Cons/3442/20 16-17	Determination of Tensile Strength of Rock Specimen of Goriganga III A HE Project	Prof A. K. Mishra, CI	NHPC Ltd.
217	Cons/3443/20 16-17	Testing of Construction Material	Dr.SanketNayak, CI Dr. S. K. Panda, CO-CI Dr. S. Chakraborty, CO-CI Dr. S. S. Mohapatra, CO-CI	CPWD Dhanbad

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
218	Cons/3444/20 16-17	Determination of Cerchar Abrasivity of BCCL Rock Samples of VE Commercial Vehicle Ltd.	Prof. V. M. S. R. Murthy, CI	BCCL
219	Cons/3447/20 16-17	Sampling and Analysis of Coal samples dispatched from SECL	Prof. N. Suresh, CI	Govt. of India office of the Coal Controller, Kolkata
220	Cons/3448/20 16-17	Evaluation of performance and behavior of mine safety instruments and Analysis and Interpretation of Mine air Samples of Bhurkunda B Colliery, CCL	Prof. D. C. Panigrahi, CI	Bhurkunda B Colliery, CCL
221	Cons/3449/20 16-17	Evaluation of Performance and Behavior of Mine Ventilation and Safety Instruments of B K Interprises Dhanbad.	Prof. D. C. Panigrahi, CI	M/s B. K. Interprises, Dhanbad
222	Cons/3450/20 16-17	Evaluation of Performance and Behavior of Mine Safety Instruments and Analysis and Interpretation of Mine Air Samples of Phularitand Colliery, BCCL	Prof. D. C. Panigrahi, CI	Phularitand Colliery, BCCL
223	Cons/3451/20 16-17	Evaluation of Performance and Behavior of Mine Ventilation and Safety Instruments of Parbelia Colliery, ECL	Prof. D. C. Panigrahi, CI	Parbelia Colliery, ECL
224	Cons/3452/20 16-17	Analysis and Interpretation of air Samples of Hariajam Colliery, ECL	Prof. D. C. Panigrahi, CI	Hariajam Colliery, ECL
225	Cons/3453/20 16-17	Analysis and Interpretation of air Samples of Haripur Colliery, ECL	Prof. D. C. Panigrahi, CI	Haripur Colliery, ECL
226	Cons/3454/20 16-17	Evaluation of Performance of NVE dust Collector of Atlas Copco Mining and Rock Excavation Techniques	Prof. D. C. Panigrahi, CI	Atlas Copco Mining and Rock Excavation Techniques
227	Cons/3455/20 16-17	Full bench test for self contained Self rescuer of one hour duration as per IS 15803-2008 of Intesh Safety Pvt. Ltd. Kolkata	Prof. D. C. Panigrahi, CI	Intech Safety Pvt. Ltd. Kolkata
228	Cons/3456/20 16-17	Evaluation of Performance and Behavior of Mine Ventilation and Safety Instruments of Noonudih Jitpur Colliery SAIL	Prof. D. C. Panigrahi, CI	Noonudih-Jitpur Colliery, SAIL
229	Cons/3457/20 16-17	Functional Ability test of Self rescuers of PB Project Colliery, BCCL	Prof. D. C. Panigrahi, CI	P. B. Project Colliery, BCCL
230	Cons/3458/20 16-17	Determination of Specific gravity and Silica Content of One rock Sample Supplied by Volvo Groyup Trucks, Bangalore.	Prof. D. C. Panigrahi, CI	Valvo Group Trucks Bangalore
231	Cons/3459/20 16-17	Chemical testing of a few elements on the composition of Remote Setting Prop of Baldie Mining sealants Pvt. Ltd. Dishergarh.	Prof. D. C. Panigrahi, CI	Boldie Mining Sealants Pvt. Ltd. Dishergarh
232	Cons/3460/20 16-17	Third Party Sampling of Coal Supplied From CCL Washeries and Mines to SAIL Steel Plants.	Prof. Nikkam Suresh, CI Prof. V. K. Saxena, CO-CI	SAIL
233	Cons/3461/20 16-17	Analysis of Coal Sample from Obara Thermal Power Station.	Dr. Shalini Goutam, CI	Obara Thermal Power Project

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
234	Cons/3462/2016-17	Testing for Physical Properties of Coarse and Fine Aggregates.	Dr.SanketNayak, CI Dr. S. K. Panda, CO-CI Dr. S. Chakraborty, CO-CI Dr. T. Dey, CO-CI Dr. S.Ss. Mohapatra, CO-CI	DVC Hazaribagh
235	Cons/3464/2016-17	Determination of some Physical and Chemical Properties of quick setting Cement Capsules of Sijua area BCCL	Prof. D. C. Panigrahi, CI	Sijua Area, BCCL
236	Cons/3465/2016-17	Functional ability test of Self rescuers of ECL and Sponsored by Intech Safety Pvt. Ltd. as Per their Arrangement.	Prof. D. C. Panigrahi, CI	Intech Safety Pvt. Ltd.
237	Cons/3466/2016-17	Evaluation of performance and Behavior of Mine Ventilation and Safety Instruments of Lakhimata Colliery Mugma Area, ECL.	Prof. D. C. Panigrahi, CI	Lakhimata Colliery, ECL
238	Cons/3467/2016-17	Evaluation of performance and Behavior of Mine Ventilation and Safety Instruments of Silewara Sub. Area, WCL	Prof. D. C. Panigrahi, CI	Silewara Sub- Area, WCL
239	Cons/3468/2016-17	Evaluation of performance and Behavior of Mine Ventilation and Safety Instruments of MRS Dhansar.	Prof. D. C. Panigrahi, CI	MRS Dhansar, Dhanbad.
240	Cons/3469/2016-17	Techno Economic Study for Transportation for Fly ash from CSPGCL Korbamanikpur Open Cast Mines.	Dr. B. K. Mishra, CI Prof. S. K. Gupta, CO-CI	Chhattisgarh State Power Generation Company Ltd.
241	Cons/370/2016-17	Water quality Analysis for drinking Purpose in Dhorikhas Colliery.	Dr. B. K. Mishra, CI	Dhorikhas Colliery, Bokaro
242	Cons/3473/2016-17	Scientific Study for Support Design of a Inter Seam Tunnel in adriyala Underground Mine.	Prof. U. K. Singh, CI	SCCL
243	Cons/3474/2016-17	Determination of CercharAbrasive Index and Cerchar Hardness Index of Some rock samples of L&T STEC JV, Mumbai.	Prof. VMSR Murthy, CI	L&T STEC JV Mumbai
244	Cons/3476/2016-17	A study into Present Atmospheric conditions including the conditions of fire areas for Improving Safety in Sijua Colliery Tata Steel Ltd.	Prof. D. C. Panigrahi, CI	Sijua Colliery Tata Steel Ltd.
245	Cons/3477/2016-17	Determination of degree of gassiness of Seam II and Seam III at Gare Palma Mine, Hindalco Industries Ltd.	Prof. D. C. Panigrahi, CI	Hindalco Industries Ltd.
246	Cons/3478/2016-17	Eveluation of Performance and Behavior of Safety Instruments of Kunustoria Colliery ECL	Prof. D. C. Panigrahi, CI	Kunustoria Colliery ECL
247	Cons/3479/2016-17	Evaluation of Performance and Behavior of Safety Instruments of Saoner Sub-Area WCL	Prof. D. C. Panigrahi, CI	Saoner Sub Area, WCL
248	Cons/3480/2016-17	Evaluation of Performance and Behavior of Safety Instruments of Katras Area and Govindpur Area BCCL	Prof. D. C. Panigrahi, CI	Katras Area and Govindpur Area BCCL
249	Cons/3481/2016-17	Analysis and Interpretation of air Samples of Dhorikhas Colliery CCL	Prof. D. C. Panigrahi, CI	Dhorikhas (K) Colliery, CCL
250	Cons/3482/2016-17	Sampling and Analysis of Coal samples dispatched from CCL.	Prof. N. Suresh, CI	Govt. of India office of the Coal Controller

Sl. No.	Consultancy Number	Title of the Project	Coordinator & Team Members	Client
251	Cons/3463/2016-17	Testing for Physical Properties of Coarse and Fine Aggregates.	Dr. S. Nayak, CI Dr. S. K. Panda, CO-CI Dr. S. Chakraborty, CO-CI Dr. T. Dey, CO-CI Dr. S. S. Mahapatra, CO-CI	DVC Hazaribagh
252	Cons/3483/2016-17	Detailed Mineralogical Characterization of Manganese Ores of MOIL.	Dr. P. R. Sahoo, CI Prof. A. S. Venkatesh, CO-CI	MOIL Ltd. Nagpur
253	Cons/3485/2016-17	Study on Underground Coal Mining in CIL - Problems, Potential, Technology, Modernisation, Production and Safety - Part A.	Prof. S. Chaudhuri, CI Prof. R. M. Bhattacharjee, CI Prof. D. C. Panigrahi, CO-CI	CMPDIL, Ranchi
254	Cons/3484/2016-17	Assessment & Certification and Preparation of Yearly Mine Closure Activities of 5 mines of GMDC	Dr. Biswajit Paul, CI	GMDC

5.2 Professional Development Programmes

IIT (ISM) has been contributing for up-gradation of knowledge and expertise of executives of different companies by offering professional development programmes in its core areas of competence. Over the years, it has established excellent credentials in this area of activity. The Continuing Education wing of Executive Development Centre organized a wide range of activities towards bridging the gap between Industry and academia. During the year 2016-17, a total of seventy four (74) Professional Development Programmes have been conducted for executives of various sectors viz. Government, Public and Private companies. Number of executives trained was 1420 (i.e. 17137 participant-days) with revenue generation of Rs. 623.56 Lakhs. A list of Professional Development Programmes organized at the institute during the financial year 2016-17 is given in Table 5.2.

Table 5.2: Professional Development Programmes organized at IIT (ISM) during the financial year 2016-17

Sl. No	Course Number and period	Programme	Coordinator(s) (Department)	No. of Participants	Weeks	Participants Weeks
1	21 - 23 April, 2016	3 days Underground Coal Mining - Advances in Technology & Management.	Prof. R. M. Bhattacharya, CI	10	3 days	10
2	Cons/3224/2016-17 26 - 28 April, 2016	Application of Modern Tools and Techniques for Mine Surveying.	Dr. Dheeraj Kumar, CI Mr. V. G. K. Villuri, CO-CI	16	3 days	16
3	Cons/3195/2016-17 9 - 13 May, 2016	Energy Management and Energy Audit in Mines.	Dr. Tanmoy Maity, CI Prof. T. K. Chatterjee, CO-CI	14	1	14
4	Cons/3219/2016-17 24 - 25 May, 2016	Dealers Development Programme for Indian Oil Dealers.	Dr. Saumya Singh, CI Prof. Promod Pathak, CO-CI	40	2 days	40

Sl. No	Course Number and period	Programme	Coordinator(s) (Department)	No. of Participants	Weeks	Participants Weeks
5	Cons/3358/2016-17 9.5.2016 to 10.6.2016	Intensive Training Program for Management Trainers of E&M Cadre of CIL	Prof. A. K. Mukhapadhyay, CI, Mr. Ajit Kumar, CO-CI	19	5	95
6	Cons/3359/2016-17 9.5.2016 to 10.6.2016	Intensive Training Program for Management Trainers of Excavation Cadre of CIL	Prof. K. Dasgupta, CI Dr. Niranjana Kumar CO-CI	18	5	90
7	Cons/3220/2016-17 25 - 27 May, 2016	3 days Water Quality and Management.	Dr. S. R. Samadder, CI Dr. B K. Mishra, CO - CI	14	3 days	14
8	Cons/3222/2016-17 26 - 28 May, 2016	Advanced Device Modeling and VLSI Technology (ADMVT-16)	Dr. Subindu Kumar, CI Dr. Mukul Kumar Das, CO-CI	5	3 days	5
9	Cons/3208/2016-17 27 - 29 May, 2016	Recent Trends in Microwave and Photonic Technology (RTMPT).	Dr. S. K. Raghuwanshi, CI Dr. R. B. Choudhary, CO-CI	14	3 days	14
10	Cons/3221/2016-17 2 - 4 June, 2016 at Kolkata	Recent Trends in Waste Management Practices.	Dr. Vipin Kumar, CI Dr. M. K. Jain, CO-CI	23	3 days	23
11	Cons/3214/2016-17 1 - 3 June, 2016	Data Storage and processing Techniques in Cloud environment.	Dr. Dharavath Ramesh, CI	34	3 days	34
12	Cons/3228/2016-17 13 - 17 June, 2016	Image Processing Algorithms and Applications.	Dr. Arup Kumar Pal, CI Dr. Soumen Bag, CO-CI	14	1	14
13	Cons/3230/2016-17 20 - 24 June, 2016	Reliability and Safety analysis	Dr. Subhashish Chatterjee, CI Dr. Abhishek Kr. Singh, CO-CI	34	1	34
14	Cons/3235/2016-17 20 - 24 June, 2016	Wireless Sensor Networks.	Prof. P. K. Jana, CI Mr. T. Amgoth, CO-CI	13	1	13
15	Cons/3317/2016-17 4 - 6 July, 2016 At Kolkata	Principles of Geomechanics and Wellbore Stability Modeling.	Dr. Rima Chatterjee, CI	7	3 days	7
16	Cons/3236/2016-17 11 - 15 July, 2016	Ambient Air Quality Assessment, Prediction and control.	Dr. M. K. Jain, CI Dr. Vipin Kumar, CO-CI Dr. S. Pandian, CO-CI	14	1	14

Sl. No	Course Number and period	Programme	Coordinator(s) (Department)	No. of Participants	Weeks	Participants Weeks
17	Cons/3318/2016-17 13 - 15 July, 2016	A programme on "Case Study Methodology and Development for BCCL - from Land breakers to Earth Makers"	Prof. Promod Pathak, CI Prof. Satish K. Sinha	15	3 days	15
18	Cons/3361/2016-17 4th July, to 5th Aug., 2016	Intensive Training Program for Management Trainers of E&M Cadre of CIL	Prof. T. K. Chatterjee, CI Dr. Ajit Kumar, CO-CI	17	5	85
19	Cons/3360/2016-17 4th July, to 5th Aug., 2016	Intensive Training Program for Management Trainers of Excavation Cadre of CIL	Prof. A.K. Mukhopadhyay, CI Dr. Niranjan Kumar, CO-CI	19	5	95
20	Cons/3263/2016-17 27 - 29 July, 2016	Monitoring of Ecological Restoration Success and Carbon Sequestration Using Remote Sensing and GIS	Dr. S. R. Samadder, CI Prof. S. K. Maiti, CO-CI	22	3 days	22
21	Cons/3264/2016-17 1 - 5 Aug., 2016	Modern Petroleum Industry and Its Challenges.	Dr. T. K. Naiya, CI Prof. T. Kumar, CO-CI	32	1	32
22	Cons/3286/2016-17 1 - 8 Aug, 2016	Mining Environment	Prof. Biswajit Paul, CI	34	8 days	68
23	Cons/3276/2016-17 8 - 11 Aug, 2016	Recent Developments in Blasting Practices for Improved Productivity and Safety in Mines for IOCL Executive	Prof. A. K. Mishra, CI Prof. R. M. Bhattacharjee, CO-CI	15	4 days	15
24	Cons/3280/2016-17 29.8.2016 to 01.09.2016 at Kolkata	Lubrication and Lubricants.	Dr. Niranjan Kumar, CI Prof. A. K. Mukhopadhyay, CO-CI	25	4 days	25
25	Cons/3282/2016-17 10 - 12 Aug., 2016 at Kolkata	Contracts and Materials Management in Coal Mining Industry at Kolkata	Prof. Chandan Bhar, CI Dr. Niladri Das, CO-CI	13	3 days	13
26	Cons/3281/2016-17 11 - 12 Aug., 2016 at Kolkata	Managing Executive Stress	Prof. Pramod Pathak, CI Dr. Saumya Singh, CO-CI	16	2 days	16
27	Cons/3266/2016-17 18 - 20 Aug., 2016 At Kolkata	Occupational Health, Safety & Environment.	Prof. A. K. Pal, CI Dr. Biswajit Paul, CO-CI	28	3 days	28
28	Cons/3285/16-17 22 - 26 August, 2016	Maintenance and Troubleshooting of Hydraulic Systems Used in HEMM.	Prof. K Dasgupta, CI Dr. Jayanta Das, CO-CI	21	1	21

Sl. No	Course Number and period	Programme	Coordinator(s) (Department)	No. of Participants	Weeks	Participants Weeks
29	Cons/3288/2016-17 29 Aug., 2016 to 2 Sept., 2016	Modeling & Simulation of Optoelectronic Devices and Solar Photovoltaics at ISM Dhanbad.	Dr. Mukul Kr. Das, CI Dr. Subindu Kumar, CO-CI	12	1	12
30	Cons/3362/2016-17 8.8.2016 to 9.9.2016	Intensive Training Program for Management Trainers of (E&M) (Excavation) Cadre of CIL	Prof. K. Dasgupta, CI Dr. Niranjana Kumar, CO-CI	20	5	100
31	Cons/3301/2016-17 12 - 16 Sept., 2016	Project Management with Application Software.	Dr. Sandeep Monadal, CI Dr. Niladri Das, CO-CI	14	1	14
32	Cons/3262/2016-17 12 - 07 Oct., 2016	Petroleum Engineering for the Executives of Reliance India Ltd.	Prof. A. K. Pathak, CI Prof. T. Kumar, CO-CI Prof. V. P. Sharma, CO-CI	12	4	48
33	Cons/3303/2016-17 13 - 24 Sept., 2016	Controlled Blasting Management and Safety for Road Construction in Mountainous Area for BRO Officers.	Prof. A. K. Mishra, CI Dr. B. S. Choudhary, CO-CI	13	2	26
34	Cons/3302/2016-17 14 - 18 Sept., 2016	Hands on Session on MONOSEK Real Time Network Packet Processing & Network Session Analysis.	Dr. Sachin Tripathi, CI Dr. Arup Kr. Pal, CO-CI	32	1	32
35	Cons/3386/2016-17 12 - 23 Sept., 2016	EDP on Project & Financial Management with Application software for MCL Executives	Prof. J. K. Pattanayak, CI Prof. Chandan Bhar, CO-CI	20	2	40
36	Cons/3365/2016-17 12 Sept. to 07 Oct., 2016	Four weeks course on Practical Mine Surveying for Mine Surveyors and Apprentice in Mine Surveying.	Dr. Dheeraj Kumar, CI Mr. V. G. K. Villuri, CO-CI	11	4	44
37	Cons/3267/2016-17 19 - 30 Sept., 2016	Training Programme for MECL Executives on 'Mineral Resource Evaluation and Geostatistics'	Prof. B. C. Sarkar, CI	12	2	24
38	Cons/3368/2016-17 21 - 23 Sept., 2016	Formulation of Corporate Plan for NHPC Executives.	Dr. Niladri Das, CI Prof. Chandan Bhar, CO-CI	13	3 days	13

Sl. No	Course Number and period	Programme	Coordinator(s) (Department)	No. of Participants	Weeks	Participants Weeks
39	Cons/3305/2016-17 21 - 23 Sept., 2016	Three days Training programme on Water Quality and Management for Thermal Power Plants.	Dr. S. R. Samadder, CI	12	3 days	12
40	Cons/3372/2016-17 26 - 28, Sept., 2016	Rock Mechanics of Hydro-Power Projects.	Prof. VMSR Murthy, CI Dr. G. Budi, CO-CI	12	3 days	12
41	Cons/3370/16-17 26 - 30 Sept., 2016	Sustainable Mining Capability Building (SMCB)	Prof. Om Prakash, CO-CI Prof. Satish K. Sinha, CI	20	1	20
42	Cons/3329/2016-17 18 - 22 October, 2016	Advanced Treatment of Solid and Hazardous Waste Current Perspectives.	Dr. Vipin Kumar, CI Dr. M. K. Jain, CO-CI	14	1	14
43	Cons/3345/2016-17 7 - 9 Nov., 2016	Mining Equipment Safety Practices.	Dr. L A Kumaraswamidhas, CI Shri Ajit Kumar, CO-CI	15	3 days	15
44	Cons/3348/2016-17 2.11.16 to 14.11.16	Mine Management, Legislation and General Safety.	Prof. R. M. Bhattacharjee, CI Prof. D. C. Panigrahi, CO-CI	18	2	36
45	Cons/3436/2016-17 7.11.16 to 9.12.16	Intensive Training Program for Management Trainers of Excavation Cadre of CIL.	Prof. K. Dasgupta, CI Dr. R. R. Das, CO-CI	18	5	90
46	Cons/3434/2016-17 7.11.16 to 9.12.16	Intensive Training Program for Management Trainers of E & M Cadre of CIL.	Prof. A.K. Mukhopadhyay, CI Dr. A. S. Hati, CO-CI	28	5	140
47	Cons/3304/2016-17 9- 11 Nov., 2016	Management of Water Resources near Mining Industrial Areas.	Dr. P. K. Singh, CI	24	3 days	24
48	24 - 28 Nov., 2016	Application of Statistics in Advanced Research.	Dr. G. Vishwakarma, CI	19	1	19
49	Cons/3403/16-17 05 - 09 Dec., 2016	Mining Value Chain	Prof. VMSR Murthy, CI Dr. Dheeraj Kumar, CO-CI	10	1	10
50	Cons/3407/2016-17 5 - 16 Dec., 2016	Controlled Blasting Management and Safety for Road Construction in for AEE (Civil) of Border Road Organisation.	Prof. A. K. Mishra, CI Dr. B. S. Choudhury, CO-CI Dr. Hemant Kumar, CO-CI	11	2	22

Sl. No	Course Number and period	Programme	Coordinator(s) (Department)	No. of Participants	Weeks	Participants Weeks
51	Cons/3472/2016-17 12.12.16 to 13.01.16	Intensive Training Program for Management Trainers of Excavation Cadre of CIL.	Prof. T. K. Chatterjee, CI Dr. R. R. Das, CO-CI	9	5	45
52	Cons/3471/2016-17 12.12.16 to 13.01.17	Intensive Training Program for Management Trainers of E & M Cadre of CIL.	Prof. A.K. Mukhopadhyaya, CI Dr. A. S. Hati, CO-CI	30	5	150
53	Cons/3365/2016-17 18 - 20 Dec., 2016	Short Term Training Programme on "Ground Water Contamination and Modeling Approaches	Dr. M. K. Singh, CI	31	1	31
54	Cons/3404/2016-17 19 - 23 Dec., 2016	Water Quality & Treatment. Plant Operation.	Dr. B. K. Mishra, CI	13	1	13
55	Cons/3387/2016-17 19 - 23, Dec., 2016	Wireless LAN and Bluetooth security.	Prof. G. P. Biswas, CI Dr. Hari OM, CO-CI Dr. A. K. Pal, CO-CI	13	1	13
56	Cons/3389/2016-17 26 - 30, Dec., 2016	Electrical Safety in Mines.	Prof. P. K. Sadhu, CI Dr. Nitai Pal, CO - CI	17	1	17
57	Cons/3423/2016-17 9 - 21 Jan., 2017	Controlled Blasting Management & Safety for Road Construction in Himalayan Territory.	Prof. A. K. Mishra, CI	15	2	30
58	Cons/3475/2016-17 11 - 13 Jan, 2017	Drilling & Blasting Techniques for Surface & Underground Excavations.	Prof. VMSR Murthy, CI Dr. B. S. Choudhary, CO-CI	12	3 days	12
59	Cons/3402/2016-17 16 Jan - 10 Feb., 2017	Petroleum Engineering for the Executives of Reliance India Ltd.	Prof. A. K. Pathak, CI Prof. T. Kumar, CO-CI Prof. V. P. Sharma, CO-CI Dr. T. K. Naiya, CO-CI	15	4	60
60	Cons/3420/2016-17 21 - 25 Jan., 2017	Recent Trends in Wireless Sensor Networks and IOT	Prof. P. K. Jana, CI Mr. T. Amgoth, CO-CI	16	1	16
61	16 - 23 Jan, 2017	Mining Environment	Dr. Biswajit Paul, CI	8	2	16
62	23 - 27 Jan., 2016-17	Pelletizing and Sintering.	Prof. R. Venugopal, CI Dr. S. Soren, CO-CI	23	1	115
63	23 Jan., 2017 to 3 Feb., 2017	Blasting Practices for Improved Productivity and Safety.	Prof. A. K. Mishra, CI	19	2	38

Sl. No	Course Number and period	Programme	Coordinator(s) (Department)	No. of Participants	Weeks	Participants Weeks
64	23.01.17 to 24.02.17	Coal Preparation Principles & Plant Practices	Prof. N. Suresh, CI Prof. S. Bhattacharya, CO-CI	12	5	60
65	6 - 10 Feb., 2017	Personal Communication and Optical Monitoring System for Coal Mines.	Prof. Vishnu Priye, CI Prof S. K. Sinha, CO-CI	18	1	18
66	Cons/3445/2016-17 27.02.17 03.03.17	Data Mining and Its Applications	Dr. Rajendra Pamula, CI Dr. A. C. S. Rao, CO-CI	35	1	35
67	Cons/3446/2016-17 02 - 05 March, 2017	Advancements in Blasting Technology and Safety Management in Mines	Prof. A. K. Mishra, CI Prof. R. M. Bhattacharjee, CO-CI	15	4 days	15
68	20 Feb.2017 to 24 March., 2017	Five weeks Intensive Training Program for Executives (E & M Cadre) from CI.	Prof. A. K. Mukhopadhyay, CI Dr. Niranjana Kumar, CO-CI	25	5	125
69	20 Feb.2017 to 24 March., 2017	Five weeks Intensive Training Program for Executives (Excavation Cadre) from CI.	Prof. K. Dasgupta, CI Dr. Jayanta Das, CO-CI	23	5	115
70	DST/18/AGP/2016-17 18-20 April, 2016	Earthquake Hazards awareness for Real Estate Technical Personnel	Dr. P. N. S. Roy, CI	26	1	26
71	DST/19/MATH/2016-17 04-16 July, 2016	Differential equations and their applications in Science and Engineering (DEASE-2016)	Dr. M. K. Singh, CI	35	3	105
72	DST/20/AP/2016-17 31 May-22 June, 2016	SERB, DST sponsored National Training Program on LASERS: Technology and Applications in Engineering	Dr. V. K. Rai, CI Dr. Pankaj Mishra, Co-CI	20	1	20
73	DST/21/MATH/2016-17	Dynamic systems: Theory & Applications	Dr. Badam Singh Kushvah	54	1	54
74	12-17 Dec, 2016	Geophysical Software Practices for Subsurface Imaging	Dr. P. N. S. Roy, CI	30	1	30

6. INTERNATIONAL RELATIONS & ALUMNI AFFAIRS

A beginning in the area of international relations was made by creating a new position at the levels of Associate Dean (International Relations and Alumni Affairs) in 2012 and Dean (International Relations and Alumni Affairs) in 2016 to enhance the academic and research collaborations with different universities/institutions across the globe.

The principal activities undertaken in international collaborations are as follows:

6.1 International Relations

Academic and Research Collaborations established with foreign universities during 2016-17

- University of Western Sydney, Australia.
- University of Western Cape, South Africa.
- Perm National Research Polytechnic University (PNRPU), Perm, Russia.
- Politecnico Di Torino (Dept. of Mechanical and Aerospace Engineering), Italy.
- Laurentian University, Canada.
- LUCAS-UGTC, Brisbane, Australia.
- TELESTO ENERGY PTE LTD, Singapore.

Indo-Australian Round Table Conference in Kolkata

The Indo-Australian round table meeting involving representatives of Indian Institute of Technology (Indian School of Mines), Dhanbad, Coal India Limited, and Australian Universities was organized at CIL Head Quarter on 19th November 2016 for objective of Enhancement of Collaborative R&D activities at IIT(ISM) and CIL. The round table meeting was chaired by Shri Sekhar Saran, Director (Technical) & CMD, CMPDIL. The meeting was attended by Prof. D. D. Misra, Chairman, BoG, IIT (ISM), Prof. D. C. Panigrahi, Director, IIT (ISM), Ms. Hilary M. G., First Secretary, Australian High Commission, Mr. Tim Martin, Trade Commissioner, Austrade, Mr. Nick Ahlstrand, Executive Director, SIMTARS, Faculty members from IIT (ISM), Dhanbad, representatives from various Australian organizations and executives of Coal India Limited along with 56 delegates.

Indo-Australian Collaboration initiative

Her Excellency, Ms. Harinder Sidhu, Australian High Commissioner to India, Ms Hilary McGeachy, First Secretary, Australian High Commission, Ms Michelle Mannok, Head of Government Relations, Europe, Africa & Asia, Orica and a local representative of Orica visited IIT (ISM), Dhanbad on 17th February, 2017. Her Excellency, Ms. H. Sidhu inaugurated the Centre of Excellence in Mining Technology and visited Virtual Reality Simulator Laboratory, Seismological Observatory, Central Research Facility and other important laboratories and facilities of the Institute. The team met the Director, all Deans & Associate Deans, Heads of all Departments and some of the faculty members and had fruitful discussions related to the collaborative activities between the Institute and the Australian Institutes and Research Organizations. The progress made so far in various activities jointly initiated by IIT (ISM) and various Australian Collaborating partners were also presented along with the activities of Indo-Australian Joint Research Centre for Coal and Energy

Technology. She also interacted with the shortlisted scholars and their supervisors of Joint Ph.D. programmes with Curtin University.

The visit was a significant step towards the Indo-Australian Collaboration in the academic and research field.

Activities under the MoU with Curtin University, Australia

- An agreement was signed with Curtin University for Collaborative Doctoral Programme between IIT (ISM) and Curtin University. Prof. Brett Kirk, Dy Vice Chancellor, Research, Curtin University and a five-member delegation visited IIT (ISM) for signing the agreement. The same was approved in the previous EB meeting.
- Dr. Ajay Mondal and Dr. Vikas Mahato, faculty members of Department of Petroleum Engineering visited Curtin University of Technology in the month of October 2016 for research collaboration.
- Prof. Hari Vuthaluru, Department of Chemical Engineering, Curtin University, Western Australia visited IIT (ISM) during 24-27 October 2016 and discussed about the students exchange programme.
- Advertisement for Collaborative Doctoral Programme with Curtin University of Technology, Australia was released on IIT (ISM) website. Five fellowships are expected to be realized once the selection process is complete.
- Prof. Stephen Fityus and Dr. Olivier Buzzi, School of Engineering, The University of New Castle, Australia visited IIT (ISM) during 21-25 November 2016 and expressed their willingness to work together for collaborative research in the area of coal mining. Prof. Stephen Fityus delivered a lecture on “Cooling of Burning Mine Fires using Thermo Siphons, while Dr. Olivier Buzzi delivered a lecture on “Stochastic Prediction of Rock Joint Shear Strength”.
- Prof. Venkatesh Uddameri, Director, Water Resources Center and Professor, Department of Civil, Environmental and Construction Engineering and Dr. E. Annette Hernandez, Department of Civil, Environmental and Construction Engineering, Texas Tech University, Lubbock, USA visited IIT (ISM) during 18-22 December 2016. They participated in "Groundwater Contamination and Modelling Approaches (GCMA-2016)" and 3rd ICAFD-2016 organised by the Department of Applied Mathematics at IIT (ISM) Dhanbad.
- Prof. Tapas Chatterjee, Deputy Head of Department, Earth Science, University of Western Cape, South Africa visited IIT (ISM) during 18-21 December 2016. And had a discussion with the faculty members of the Departments of Applied Geology and Applied Geophysics on execution of various project proposals, short courses and Ph.D guidance.

Activities under Centre of Excellence in Mining Technology (CEMT)

- Ms. Hilary McGeachy, First Secretary, Australian High Commission, New Delhi visited the Institute 11th May 2016 to discuss the model for pursuing the Indo-Australian Collaborative Projects.
- A meeting was organized in the honour of the visit of Australian High Commissioner, Her Excellency, Ms. Harinder Sidhu at CIL HQ, Kolkata on 13th May 2016. Prof. V.M.S.R. Murthy, Associate Dean (IR&AA) briefed the High Commissioner about the

actions/projects in progress under the Indo-Australian Collaboration and requested her support to pursue the same with various Institutions and Universities in Australia.

- Mr. Tredinnick Brett, Neil Tuff's and Laxmi Chikatamarla from Lucas Drilling Pty Ltd visited the Institute on 25th May 2016 to discuss about the collaborative proposal for methane drainage.
- Prof. Steve Hall, Director, Mining Education Australia (MEA), of Western Australian School of Mines, Curtin University carried out a rapid review during 28-29 June 2016 to assess the training needs in Indian mining industry and had discussions with all the departments on it.

International Student/Faculty/Administrative Staff Exchange projects

- Erasmus Mundus India 4EUII final report was presented by Prof. V.M.S.R. Murthy, Local Coordinator and Associate Dean (IR&AA) in the closing meeting held at University of Porto, Europe on 25th May 2016 informing a total of 23 mobilities which were accomplished successfully resulting in enhanced exposure to foreign teaching, advanced laboratories and visits to different field sites. This project has also resulted in 15 publications, MoUs and submission of collaborative project proposals.
- Six mobilities under Erasmus Mundus Mobile+ programme were finalised.
- Three mobilities under Erasmus Plus Programme were finalized.
- Col. (Retd.) M.K. Singh, Registrar, IIT (ISM) and Dr. Pramod Mathur, Joint Registrar (E&A) visited University of Porto, Portugal during 7-11 November 2016 for understanding the administrative and operating mechanisms governing such programmes apart from other academic/examinations related functions.
- Mr. Amritansh Agarwal, Department of Mining Engineering went to Universidad Politecnica de Madrid for five months during January-May 2017 under Erasmus+ project exchange studies.

Establishment of International Hostel (65 capacity)

- Old Ruby Annexe was renovated to accommodate the international students as the present International EDC Annexe has reached its full capacity. Thus, the need for a dedicated hostel for giving the much-required visibility has been met with.

New Admission

- Fifteen foreign students sponsored by ONGC Videsh Limited were admitted in Petroleum Engineering.
- Admissions of one student each from All Nations University, Ghana and Ministry of Higher Education, Afghanistan were completed.
- In the year 2016-17, international students' strength in campus increased to 83.

Other International Activities

The proposal from Prof. Abhijit Mukherjee, Department of Civil Engineering, Director, Curtin-India Research Academy, Curtin on "Smart Asset Management in Resource Sectors" is under scrutiny. This is an opportunity to collaborate with top resources industries and universities of the world.

6.2 Alumni Affairs

- ISMAANA Awards for the year 2015-16 were finalized for 9 meritorious students in the disciplines of Mining Engineering, Petroleum Engineering, Applied Geology and Applied Geophysics. These awards were instituted by ISM Alumni Association of North America Chapter. Each student is awarded with a merit certificate and a cash prize of Rs.41, 000/-.
- Alma Connect, a platform to connect with all IIT (ISM) Alumni and current students/faculty, registered a total number of 11,000 alumni getting connected as on 01st July 2016.
- The MoU between IIT (ISM), Dhanbad and IMTF was signed on 11th December 2016. The total number of proposed “Inder Mohan Thapar Foundatio Research Awards” is four and the areas are Mining Engineering, Petroleum Engineering, Environmental Science and Applied Geology/Applied Geophysics. Researchers along with the respective faculty member(s) may apply for the award as a group.
- Shri S B Dasgupta and Tapas Datta of 1967 Batch visited IIT (ISM) on 25th November 2016 to discuss matters related to organize 1967 batch golden jubilee celebrations.

Industry Institute Interaction and Basant 2017

- ISMAA and IIT(ISM) Dhanbad jointly organized Industry Institute Interaction 2017 on 4th February 2017 at GJLT. Representatives from Industry had interactive sessions with the alumni, faculty and students of the Institute. In the function, a MoU was signed between IIT(ISM) Dhanbad and Adani Group.
- Events related to Alumni reunion, Basant 2017, were organized on 05th February 2017 at GJLT, Lower and Upper ground, IIT (ISM), Dhanbad. The 1967 Batch celebrated their Golden Jubilee reunion along with student and faculty members of the Institute
- MoU between IIT (ISM), Dhanbad and ISMAA (ISM 1969 BATCH) was signed on 22nd March 2017. The total number of proposed ISMAA (ISM 1969 Batch) Research Awards is two (one each in the areas namely, Mining Engineering and Petroleum Engineering).

Basant 2017: List of Awardees

The following awards which were conferred on 5th February 2017:

Basant Samman 2017 Awardees were:

1. Late VS Rangarajan, Outstanding Sports Personality and Entrepreneur
2. Shri Dinesh K Sarraf, Chairman & Managing Director, Oil and Natural Gas Corporation Limited
3. Prof. D. K. Mitra, Ex HOD, Department of Mechanical Engineering and Mining Machinery Engineering, ISM, Dhanbad

Distinguished Alumnus Awardees were:

1. Shri Sidhartha Sur, ED & Head IRS Ahmedabad, Oil and Natural Gas Corporation Limited
2. Shri Sunil Kumar Barnwal, IAS, Secretary to the Chief Minister, Secretary, Department of Industries, Mines and Geology, IT, Government of Jharkhand
3. Shri Sujit Kumar, Regional Head South Asia, Schlumberger Asia Services Limited

Bhaskar Bhattacharjee Memorial Distinguished Alumnus Awardees were:

1. Shri Rahul Guha, Director-General of Mines Safety, Directorate General of Mines Safety.
2. Shri Tapas Kumar Nag, Chairman cum Managing Director, Northern Coalfields Limited.

Nagendra Kumar Memorial Award of Excellence Awardees were:

1. Shri Utpal Bora, Chairman cum Managing Director (CMD), Oil India Ltd.
2. Dr. N. K. Nanda, Director Technical, National Mineral Development Corporation Limited

7. STUDENTS' ACTIVITIES

Students were involved in organizing various academic and extracurricular activities in association with International Societies viz. Society of Petroleum Engineers (SPE), Society for Mining, Metallurgy and Exploration (SME), Society for American Association of Petroleum Geologists (AAPG), Institute of Electrical and Electronics Engineers (IEEE), Association for Computing Machinery (ACM), Society of Exploration Geophysicists (SEG), Society for European Association of Geoscientists and Engineers (EAGE), Optical Society of America (OSA), International Society of Optics & Photonics (SPIE), and American Society of Mechanical Engineers (ASME).

7.1 Technical Activities

- Khanan – 2016 was organized by the SME during 2-4 September 2016.
- “Hackfest” was organized by Department of Computer Science & Engineering during 20-22 January 2017.
- Geoconfluence - 2017 was organised by Department of Applied Geophysics during 27-29 January 2017. Dr. O. P. Mishra, Scientist-F/DDG, Ministry of Earth Sciences, New Delhi was the Chief Guest.
- “Turbulence-2017”, a national level student symposium was organised by the Department of Chemical Engineering during 28-29 January 2017 under the banner of the ChE student chapter.
- KHANIJ - 2017 was organised by Department of Fuel & Mineral Engineering on 19th March 2017) and lectures were delivered by eminent industry professionals.
- “Spectrum 2K17” was organized by Department of Electronics Engineering during 4-5 March 2017 under the aegis of Society of Electronics Engineers.

7.2 Sports and Co-Curricular Activities

The institute organized various co-curricular activities such as NCC, NSS, NSO, Yoga, etc. Special welfare measures were taken to help academically weak SC/ST students by arranging special classes beyond academic hours and special counseling by teachers. The students were involved in organization of Technical, Cultural and Sports events, viz. Srijan, Concetto, Parakram, Annual Sports, etc. Students were encouraged to manage their campus affairs through the Students' Society in a democratic manner.

Srijan 2017

Srijan, the annual socio-cultural fest of the Institute was held during 24-26 March 2017.

Cyber Society & Robotics Club

The Cyber Society and Robotics Club of the Institute was actively involved in creating Cyber and robotic related awareness among the students through various workshops and events

carried out in the academic session 2016-17. All such workshops and events were selected benefitting the students of all branches. The society provided the students a wonderful platform for mutual learning and discussions led by the senior students. This helped in forming a strong connected network among the students for knowledge exchange and discussions.

A brief summary of the activities, events and projects held during this period is given below:

Sl. No.	Event name	Event date	Event description
1.	Git workshop (society members)	3 rd October 2016	Git is a distributed revision control and source code management system
2.	Headstart to programming (open to all)	25 th October 2016	Improving Programming skill
3.	Headstart to web development: Front-end (open to all)	28 th October 2016	How to Develop a Web page
4.	CSS Hackathon	4 th December 2016	Hands-on learning and creating new implementations from scratch for an impromptu topic (CSS animations in web development).
5.	Introduction to Linux' workshop	6 th December 2016	Linux introduction, usage, installation and core modules workshop by Akshat Goyal (CSE Dual Degree, '18)
6.	Project allotment day	19 – 20 January 2017	Project assignment for the academic year, doubt clearing for the 1 st and 2 nd year students.
7.	Def func()	9 th March 2017	First class of competitive programming series, to supplement advanced knowledge for placements.
8.	Project demo and synopsis workshop	18 th March 2017	Demo and explanation of the January projects to other society members. An exhibition-like setup.
9.	Hardware Make-athon	31 st March 2017	Hands-on training and implementation of things like motion-sensitive device. Electronic Voting Machine (EVM), 3D LED Cube etc.

The Photography Society

Various photography workshops, FotoMela, Photography competitions etc. were organized by the Photography Society during 15th December 2016 to 30th April 2017.

The Cultural Scientific Literary Society (CSLS)

- The Dramatics club of society conducted many activities starting with the English play "Witness for prosecution" on April 04, 2016 at IIT (ISM). Another Hindi play "Jalta Hua Rath" was performed by Dramatics Club on April 13, 2016.

- A play "Panchi Aise Aate Hain" was performed on 20th March 2017 in GJLT. Another Hindi play "Jab Sheher Humara Sota Hain" was performed on 8th April 2017 in LHC, IIT (ISM) Dhanbad. The members of the Dramatics club have been actively involved in script writing and direction. They exhibited their dramatic skills in the two Hindi plays "Bheed Mein Raunda Hua Aadmi" at IIT Bombay on 22nd December 2016 and "Peele Scooter Waala Aadmi" at IIT Guwahati on 4th February 2017.
- A lecture on "Concentration & Deviations" was organized by the Dhurva Club of CSLS on 15th October 2016 in Penman Auditorium. Another lecture on "Reining Your Mind" was organized by the members of this Club on 19th November 2016 in GJLT.
- The Literary Club organized fourth version of IIT (ISM) Talks on 2nd April 2016 at the Management Hall in which presentations and talks were covered on various topics ranging from Personality Development to Social Awareness. The Literary Fest Excelsior was organized on 3-4 September 2016 in Management Hall. Inter-year Debate and Writing Competitions were organized on 10th September 2016. Quiz Competition was organized on 3rd December 2016. The Stand -up Comedy & Debate First round was conducted on 24th March 2017. The Coffee Cup (Poetry slam) along with Debate Finals was conducted on 25th March 2017.
- Dance Club has organized an Induction Programme "Hit the Beat" for First Year Students on 26th August 2016 in Penman Auditorium. Dance competition "Kryptoes" was organized on 9th September 2016 at the same venue. Rigorous practice sessions during winter vacation. The members of the club visited IIT Kharagpur on 22nd January 2017 and bagged 3rd position in group dance event. Flash mob was organised by the members of this club to provide an opportunity to other students to participate and also to promote 'Srijan' on 26th February 2017. The members participated in solo dance, group dance and duet dance events in Srijan-2017 and secured 1st position.

Music Society

The activities of the society are given below:

- ❖ 12-08-16: Flash mob at the Institute main canteen.
- ❖ 15-08-16: National Anthem by students of music society on Independence Day celebration at Oval ground.
- ❖ 29-09-16: ALIVE, the annual musical event was organized by Music Society on the theme 'Tribute to our Soldiers'.
- ❖ 29-10-16: Arise lantern festival was held at upper ground.
- ❖ 08-11-16: A cultural performance was organized by Indian Geophysical Union Student chapter of the Institute.
- ❖ 03-12-16: Cultural performance at DGMS auditorium.
- ❖ 26-1-2017: National Anthem by students of music society at the Republic day celebration at the Oval ground.
- ❖ 02-03-17: The students of Music Society performed invocation song in the art of living program of Sri Sri Ravi Shankar
- ❖ 19-03-17: Cultural night at Khanij' 16. The annual technical festival of Dept. of Fuel and Mineral Engineering, held at GJLT.

Sports and Physical Education Centre

Sports and Physical Education Centre organised all Inter-Hostel Championship in different indoor games like Squash (W&M), Table Tennis, Badminton (W&M), Boxing (W&M), Chess, Carom, Karate (M&W), Snooker, open yoga competition and open Gym competition at SAC. The Inter-Hostel Championship in outdoor games like Handball, Volleyball (W&M), Basketball (W&M), Cricket, Football and Lawn Tennis were conducted.

Physical Efficiency Test

Physical efficiency test was conducted for all under graduate students (1st & 2nd year) for awarding CCA marks in which around 2500 students participated in the programme.

88th Annual Sports Meet 2017

The 88th Annual Sports Meet was inaugurated on 20th January 2017 by Shri D.V. Pichamuthu, Distinguished Alumni in presence of the Prof. D. C. Panigrahi, Director, IIT (ISM), Prof. J. Manam, DSW, Col (Retd.) M. K. Singh, Registrar, Prof. A. K. Pathak, President SPEC and other distinguished faculty members, officers and staff. The programme was witnessed by nearly five thousand students and other spectators. The two-day sports meet witnessed 19 Olympic and 07 Non-Olympic events. In the men section, B. Tech 3rd year and in the women section combined team of M.Phil, M.Tech & RS were adjudged best team respectively. In the Men & Women individual category Shri Preduvi Sagar & Ms. Poonam Hansda were adjudged the best athletes respectively. A new record was made in Discus Throw by Shri Pinak Surati, B.Tech 4th year with 33.30 m distance.

Special Sessions

Celebration of International Day of Yoga

The International Day of Yoga was celebrated on 21st June 2016. The programme was attended by the Director, Prof. D. C. Panigrahi, Prof. A. K. Pathak, President SPEC and other distinguished faculty members, officers and staff.

To mark the International Day of Yoga celebration, a 15 days pre -yoga session was also organized by experts of IIT (ISM) and the countdown of the International Day of Yoga was celebrated on 7th June through Gala Opening Ceremony at Lower Ground in presence of Honorable Member of Parliament Shri P. N. Singh, DRM Dhanbad, City SP and many distinguished guests along with the Director of the Institute, Prof. D. C. Panigrahi. The fortnight programme included Poster Competition, Prabhat Feri, Drawing Competition at different locations of Dhanbad.

Independence Day Run

On the eve of Independence Day, Sports and Physical Education Centre organised Independence Day Run for the Students, Teachers, Officers, Staff members and Children of the Institute. Director Prof. D. C. Panigrahi gave away prizes to the recipients.

Yoga Classes

Regular Yoga classes were organised for the students and the entire Institute fraternity under the supervision of a yoga trainer. Yoga competitions for girls and boys were organized during February-March 2017.

Routine Yoga Session

Routine yoga sessions were conducted through out the year for the residents of the Institute and senior citizens of nearby area from Tuesday to Sunday in the morning hours.

Special NSO programmes were organised round the year in the morning and evening session under Coach Shri N. K. Sadhukhan along with experts of Sports and Games like Basketball, Volleyball, Football, Badminton, Cricket, Athletics, Table Tennis, Tennis, and Judo/Karate etc.

Swimming classes for students (boys & girls), employees and their dependents were organised regularly in the morning and evening. At present, around 400 members learn swimming under the supervision of swimming experts.

Basketball, Boxing/Wushu, Squash, Athletics, Cricket, Football, Judo/Karate classes/sessions were held on regular basis under the supervision of coaches.

Teams Participation in Extramural Competitions

The 31st Dhanbad District Athletic Meet was held at Lower Ground during 20-21 August 2016.

Ms Preeti Saikia and Mr. Fawad won Gold Medal in women & men category respectively in the Open District Bench Press Competition for Men & Women organised by Katras Power Lifting Association on 18th September 2016.

Shri Ravi Kr Yadav, Shri Gagandeep Bhattacharya, Shri Anupam Nirmal, Shri ChetanYadav and Shri Abhishek Shinde were selected to represent Dhanbad District Basketball team for the 16th Jharkhand State Senior Basketball Championship held during 11 - 13 November, 2016 at Noamundi, Pashchimi Singhbhum, Jharkhand.

The Institute athletic team comprising 9 students (men), Coach cum Manager and Sports Officer participated in athletic discipline in the 51st Inter IIT Sports meet held at IIT Kanpur from 12-19 December 2016. The team was lead by Pinank Surati, a final year B.Tech student. The Institute Body Building team of 9 male students with Gym Trainer participated in Junior & Senior Mr. Jharkhand State Body Building Championship 2016-2017 held at Deoghar organized by Jharkhand Body Building & Fitness Association on 2nd April 2017. Shri Khemchand Joya won the title of Mr. Junior Jharkhand.

8. DEPARTMENTAL ACTIVITIES

8.1 Best Practices

Department of Applied Chemistry

- Facilitating the researcheres of outside/other departments in the analysis of their samples.
- Organizing lectures/seminars frequently and inviting the eminent scientist /industrialist/researchers to deliver talks.
- The formation of Chemical Society to promote science and disseminate knowledge among students.
- Inviting students of 12th standard and encouraging them for scientific research.
- Promoting national/international collaborations in research.

Department of Applied Mathematics

- Organizing a number of training programmes, seminars, workshops for researchers and teachers from other institutes and organizations.
- Conducting lectures by eminent scientists and different events under Society of Applied Mathematics (SAM).
- Organizing Alumni-student interaction through Skype.

Department of Applied Physics

- Weekly seminars by faculty, research scholars and students.
- Organization of seminar talks by experts of various research areas at regular intervals under the auspices of Society of Applied Physics.

Department of Civil Engineering

- Encouraging faculty members to actively engage in research projects and publishing their research work in refereed International journals.

Department of Computer Science and Engineering

- Delivering Quality Teaching & Research Outputs.
- Conducting Hands-on practical & project works.
- Organizing short-term courses, guest lectures, workshops, and conferences on regular basis.
- Organizing various technical events to promote competitive & healthy environment among the students.

Department of Electronics Engineering

- Developing analytical abilities and practical hands-on exposure to all students and scholars of the Department.

Department of Environmental Science and Engineering

- Providing State-of-the-art facilities in its laboratories for practical and hands on Summer Training cum Internship for students.
- Maintaining Environmental Information System through the web-site: <http://www.ismenvis.nic.in>.
- Maintaining a database management system to cater to the requirements of various users/ stakeholders of the mineral industry and regularly publishing newsletters and monographs.

- Obtaining temporary accreditation by NABET, GOI.
- Obtaining certification by ISO: 9001 (2008) and OHSAS: 18001 (2007).
- Revising and upgrading the system of the UG & PG syllabus.
- Emphasising on topics of current interest in the academic program and project based learning instead of the traditional subjects and examination centric pedagogy.
- Carrying out innovations in academic program: (a) Creation of an ambiance of academic excellence that is conducive to growth of innovative research and support to industry; (b) Special emphasis on the post-graduate and research programs; and (c) Strengthening of Ph.D. program.
- Emphasising on personal counseling of the students by nominating faculty advisers.

Department of Humanities of Social Sciences

- Orienting the UG and PG level courses towards skills and personality development.
- Exposing students to interpersonal skills with special emphasis on character/personality building among the students.
- Inculcating values and ethics in the students through workshops and interactive programmes.

Department of Management Studies

- Organising seminars and group assignments are regular basis to develop interpersonal and other soft skills while enriching knowledge base.
- Providing exposure to students to leading practitioners of the art and science of management through extramural lectures and corporate interactions.
- Emphasising on character and personality building of students through inculcation of values in them.

Department of Mechanical Engineering

- Encouraging students to take part in technical competition of national/international importance by actively involving and guiding students providing available infrastructure and workmanship.
- Encouraging students to attend national and international seminars/conferences/symposium and to present paper both for general forum and student's level competitions.
- Inculcating student's innovative minds in computational research work through latest softwares like FEM, CFD, CATIA, COMSOL, and MATLAB.
- Encouraging students to organize technical competitions in the campus where students from various Institutions from India can participate.
- Encouraging students to carry out research work in leading laboratories of premier institutes in Europe & Australia.
- Encouraging faculty members to collaborate with the leading research lab of Europe and publish joint papers.
- Organising collaborative of International Conferences in the continent of Europe with the Institute as a co-partner.

Department of Mining Engineering

- Emphasising teaching which is backed by practical case examples generated from different R&D and Industry-sponsored Projects undertaken by faculty members of the Department.
- Involving students in live projects at B.Tech. (Projects), M.Tech. (Dissertation) and Ph.D. (Thesis) levels as far as possible to provide technical and practical exposure to industry problems.

Department of Petroleum Engineering

- The Department of Petroleum Engineering signed MOU with Telesto Energy Singapore for joint collaborative work in the area of Big Data Analytics on 10th April 2017.
- The Department of Petroleum Engineering signed MOU with M/S Schlumberger on 3rd December 2016, for establishment of Reservoir Characterization Centre in the PE department. In this regard, Softwares worth 13 million USD have been donated by M/S Schlumber to the Department of Petroleum Engineering.
- The Department of Petroleum Engineering signed MOU with Pern National Research Polytechnic University, Pern, Russia on 30th December 2016 for joint collaboration in Academic and Research & Development activities.

8.2 Major Experimental/Research facilities at the Departments***Department of Applied Chemistry***

Facilities/ Equipment	Key Applications
Scanning Electron Microscope with EDX Model: S-3400N; Make: Hitachi, Japan	Surface morphology and chemical characterization
Surface Area and Porosity Analyzer Model: Nova 3200e Make: Quantachrome, USA	Surface area and pore volume determination
FTIR Spectrophotometer Model: Spectrum 2000 Make: Perkin Elmer, USA	Functional group detection of organic/inorganic compounds
UV-Visible Spectrophotometer with facility of solid as well as liquid sample analysis Model: UV-2450 Make: Shimadzu, Japan	Used in analytical chemistry for the quantitative determination of different analytes
UV-Visible Spectrophotometer with facility of liquid sample analysis Model: UV-1800 Make: Shimadzu, Japan	Used in analytical chemistry for the quantitative determination of different analytes
Fluorescence Spectrophotometer Model: LS55 Make: Perkin Elmer, USA	Fluorescence study of different organic samples

Binary GPC-HPLC Model: 2414 Make: Waters(I) Pvt. Ltd; USA	Molecular weight determination of polymers and separation & purification of organic compounds
Gas Chromatograph with fixed bed reactor Model: GC2010 Make: CIC, India	On line analysis of gas phase reaction.
Gas Chromatography Model: GC2011 Make: CIC, India	Separating and analyzing of volatile gas & liquid samples
Electrochemical Work Station Model: 660 C with 680 Amp Booster Make: CH instruments; USA	Corrosion & electrochemical analysis
Electrochemical Impedance and corrosion analysis Model: 660 D Make: CH instruments; USA	Corrosion analysis
Potentiostat Model: 7800 Make: Amel Instruments	Corrosion analysis
Drug Dissolution Apparatus Model: 1912 Make: EI, India	Drug delivery study
Differential Scanning Calorimetry Model: DSC7 Make: Perkin Elmer, USA	Thermal characterization

Department of Applied Geology

Facilities/ Equipment	Key Applications
MPV2 Microscope with Fluorescent attachment	Coal petrography for determining maceral and microlithotype composition and kerogen characterization
Coal Petrography Microscope	Coal petrography for maceral and kerogen characterization and reflectance study
Stereo zoom Microscope	Microfossil identification and characterization
Petrographic and Biological Microscope	Nano fossil identification and characterization
Fluid Inclusion System and Microscopy	Fluid Inclusion studies in geological samples
Jaw Crusher	Rock crushing and Powdering
Vibratory Disc Mill	Fine powdering of geological samples in agate and tungsten carbide vessels with minimal contamination
Disc Mill	Powdering of geological samples
Mineral Separation Table	Gravity separation of minerals

Frantz® Isodynamic Separator	Magnetic separation, based on susceptibilities, of minerals
Table Top Specimen Cutter	Rock cutting instrument
Petrothin® Thin Sectioning Instrument	Thin sectioning instrument
Grinder Polisher	Section polishing instrument for petrography and EPMA study
Vacuum Impregnation System	Impregnation compaction of friable samples
Wavelength Dispersive X-Ray Fluorescence Spectrometer	Qualitative and Quantitative Elemental concentration determination from geological samples
Gem Refractometer	Gem stone characterization

Department of Applied Mathematics

Facilities/Equipment	Key Applications
Three HP servers (Two Red Hat LINUX based and one WINDOWS based) with Mathematica, thirty-one users network licenses, License, SPSS Software	Computing
Name : High End Workstations Make & Model Supermacro with <ul style="list-style-type: none"> • NVIDIA Tesla Kepler K20 • NVIDIA Quadro 6000 • NVIDIA GeForce GTX TITAN X(PG600-A04) • NVIDIA GTX 680 GPUs • NVIDIA Tesla C2070 • NVIDIA Quadro 5000 • and Mathematica & Matlab/ Matlab Network 	For High Performance Computing

Department of Applied Geophysics

Facilities/Equipment	Key applications
Porosity and Permeability of 2.5 inch core samples at Rock Physics Laboratory.	Reservoir studies and well bore stability analysis.
Ground Penetrating Radar (GPR), Resistivity Imaging System, Well Logging, Seismic Exploration, Remote Sensing	Geotechnical characterization and water resources research
Gravity (CG-5 gravimeter) and magnetic (PPM magnetometer)	Identifying concealed mineralized zone/mineral, and mapping of faults/folds/lineaments
Magneto-Telluric (MT), Broad band seismology, GPS and gravity	Geothermal resource mapping, crustal deformation and geodynamics.

Resistivity, Self-Potential (SP) and Remote Sensing	Monitoring of the fire front by real time data analysis of ground-based survey as well as satellite based data.
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Department of Applied Physics

Facility/Equipment	Key Application
Langmuir Blodgett Apparatus Make: M/s Apex Instruments, Kolkata Model: LB 2007 BC	For deposition of Monolayer /Multilayer of Organic & Inorganic compounds
Spin Coating Unit Make: M/s Apex Instruments, Kolkata Model: SCU-2005	For deposition of Monolayer /Multilayer Thin films
Dip Coating Unit Make: M/s Apex Instruments, Kolkata Model: Xdip-SV-1	For deposition of Monolayer /Multilayer Thin films
Electro-deposition unit Make: ELNOVA	For deposition of Thin films
High Temperature Furnace Make: M/s Naskar & Co., Howrah Model: EN 140 QT	Controlled annealing/ sintering of materials upto 1300°C
Milli-Q water purification Apparatus Make: Merck Millipore Model: Elix Essential 3	Ultrapure water system
X-Ray Diffractometer (XRD) Make: Bruker, Germany Model: D8 Focus	Structure determination, Phase identification
Fourier Transform Infrared Spectrometer (FTIR) Make: Perkin Elmer Model: Spectrum RXI	Determination of functional groups
Thermoluminescence Analyzer Make: M/s Nucleonix Hyderabad Model: TL 1007	Thermoluminescence phenomena, Defect characterization, Identification of trap levels
Fluorescence Spectrophotometer Make: Hitachi Model: F-2500	Photoluminescence phenomena, Information about the transitions of dopant / host matrix
Monochromator, Detector and Source Make: Princeton Instruments Model: Acton SP-2300	Photoluminescence/ Up-conversion phenomena
UV-VIS Spectrophotometer Make: Perkin Elmer Model: Lambda 35	For absorption, transmission and diffuse reflectance studies, Band gap determination

LCR HITESTER Make: HIOKI Model: 3532-50	Dielectric studies as a function of temperature and frequency
Source meter Make: Keithley Model: 2400	I-V Characteristics
Low temperature sample holding arrangement Make: Wayne-Kerr Model: SSH-40	For holding the samples during various electrical properties measurements in low temperature range
Optical Spectrum Analyzer Make: YOKOGAWA	Analysis of spectrum of wavelength range 600-1700 nm
Direct Core Monitoring Optical Fibre Fusion Splicer Make: SUMITOM	Splicing of different types of fiber
Laser sources	Wavelength - 800 nm, 980 nm, 1310 nm, 1550 nm
Super luminescence Diode Make: Superlum, Russia	Broadband source (Near IR region)

Department of Chemical Engineering

Facilities/Equipment	Key applications
Name: FTIR Make: Agilent Technology, USA Model: Cary 660	Functional group detection of organic/inorganic compounds
Name: Zeta Sizer Make: Malvern, UK Model: Nano- S90	Particle Size distribution of nano particles, colloidal dispersions, polymer and protein solution
Name: Rheometer Make: Anton Paar, Austria Model: MCR 102	Rheological studies on soft materials such as suspensions, emulsions, pastes, polymeric solutions and polymeric melts.
Name: Tensiometer Make: Kruss, Germany Model: DSA 25S	Surface tension of a liquid or the Interfacial Tension between two immiscible liquids
Name: Density Meter Make: Anton Paar, Austria Model: DMA 5000M	Determination of Density, Specific Gravity, Concentration of liquids and gases.
Name: Viscometer Rheo Lab Make: Anton Paar, Austria Model: C-LTD 180/QC	Determine the flow behavior of fluids for quality control, product development, and research applications
Name: UV- Visible Spectrophotometer Make: Thermo Fisher, USA Model: Evolution 300	Concentration measurement of analytics
Name: HPLC Make: Agilent Technology Model: 1260 Infinity	Separation of organic compounds, and concentration measurement of organic compounds

Name: Particle Size Analyzer Make: Microtrac, USA Model: S3500	Particle Size and other physio-chemical parameters
Name: CHNS Analyzer Make: Elementar, Germany Model: Vario MICRO Cube	Analysis of C, H, N, O & S
Name: TOC Analyzer Make: Elementar, Germany Model: Vario TOC Select	TOC Analysis
Name: DSC-TGA Make: TA, Instrument, USA Model: SDT Q600	Simultaneous measurement of weight change (TGA) and differential heat flow (DSC) on the sample material
Name: TGA, Thermostep Make: Eltra, Germany	Proximate Analysis of coal biomass
Name: Ultrasonic Probe Make: Sonics and Materials, USA Model: VCX 500	Nano particle synthesis, Homogenization of aqueous samples/solutions
Name: GC Make: Thermo Fisher, USA Model: Trace GC 700	Analysis of gas sample
Name: Karl Zeiss Axioscope Make: Carl Zeiss Model: Axioscope A1	Characterization of Surface Morphology Image Processing Micro fluidics, Fluorescence Microscopy
Name: Planetary Ball Mill for nano-sized grinding Make: EGOMA Technologies Model: EGOMA E1-100	For nano-sized grinding
Milli-Q Water Purification Apparatus Make- Merck Millipore Model- Integral 5S	Ultrapure Water

Department of Civil Engineering

Facilities/Equipment	Key applications
Universal Testing Machine (UTM), MICROTEST	Used for compression, tension and flexure testing.
Computer Controlled Servo Hydraulic System	Used for compression, flexure, 3-point bending testing.
Fabricated High Payload Vibration Shake Table, AIMIL	Used for simulation of seismic loading.
Table Top Digital Tri-axial Shear Apparatus, AIMIL	Used for tri-axial testing of soil, namely Unconsolidated Undrained test, Consolidated Undrained test and Consolidated Drained test. Also used for research purpose.
Adjustable open channel apparatus (tilting hydraulic flume with required accessories), MASS INTERNATIONAL	Used for studying open channel flow characteristics, hydraulic jump and measurement of flow rates using different notches.

Department of Computer Science & Engineering

Equipment/Software Available	Application
MATLAB with SIMULINK and toolboxes like Image Processing, Statistics, Optimization, Neural Network, Fuzzy Logic, Wavelet, Bioinformatics, Signal Processing, DSP System Toolbox, Communication System. Toolbox 7.19.	Efficient simulation of problems in the field of Digital Image Processing, Optimization Techniques, Soft Computing, Digital Signal Processing, Bioinformatics and Wavelet Analysis.
QualNet Simulator	Simulation of large-scale and heterogeneous networks using graphical user interface and Command line interface.
IBM Rational Software Architect	Advanced and comprehensive application design, modeling and development tool for end-to-end software delivery.
NI Multisim	It is used to build expertise through practical application in designing, prototyping, and testing electrical circuits. The Multisim design approach helps in saving prototype iterations and optimizes printed circuit board (PCB) designs earlier in the process.
Name: Eight node cluster: One Master server: Processor Intel Xeon @ 3.00 GHz, RAM 2GB DDR2, RHEL 4.0 Operating System, C3 tool for Cluster Command, HDD 80 GB x 2. Seven Slave server: Processor P4 @3.06GHz, (1 – 7 Node), RAM 512MB DD, RHEL 4.0, Operating System, HDD 80 GB.	Cluster computing and running parallel programs, MPI.

Department of Electrical Engineering

Facilities/Equipment	Key Applications
Conditioning Monitoring Lab	Conditioning Monitoring Mine Winder
Soft Computing Lab., DSPACE-1104, MATLAB along with toolboxes , ETAP Software	Real time implementation of Intelligent Controller for Load Frequency control, SMART GRID, Distributed Energy sources
STATCOM and others, Z-source Converter, PSIPCE Software, DSP, FPGA, DSPACE	Simulation of high- frequency mirror inverter for energy efficient induction heated cooking oven using PSPICE Renewable Source Power System
MATLAB Toolboxes	Power Management & congestion relief, Planning & Co-ordination, Reactive Power sources with FACTS devices.

Programmable Logic Controller (PLC)	Plant logic operation, Control, programming, troubleshooting
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Department of Electronics Engineering

Facilities/Equipment	Key Applications
USRP – 2922 Model 400 MHz to 4.4 GHz Software Kit 400 MHz , 12 MHz , 144 MHz Tri Band Vertical Antennas 2.4 & 5GHz Dual Band Vertical Antennas USRP MIMO Sync. & Data Cable	Simulation and Spectrum Data Acquisition
NI Lab view software	Simulation and creation of user interfaces
Cadence University UG Bundle	Circuit Simulation (analog, mixed) Layout design.
ORCAD	Circuit Simulation
Analog Signal Generator step attenuator pulse modulation Freq. range from 250 KHz to 20 GHz Analog ramp sweep AM FM, Phase modulation, & LF output	As a RF source
Ansoft High Freq. software bundle consisting of one no. each: <ul style="list-style-type: none"> • HFSS 11.x • HFSS V11.x:full wave spice Export • HFSS V11.x:Multiprocessing • Designer V4.x • Designer V4.x: multiprocessing option for planner • Nexim V4x • Q3D Extractor V8.x • Q3D Extractor V8.x: Multiprocessing option • SI Wave V3.x: • SI Wave V3.x: multiprocessing • e Physics V3.x for HFSS V11 • e Physics V3.x: multiprocessor for HFSS • Optimetrics V5.x • Ansoftlinks for MCAD V6.x:IGES, STEP, ProE, Catia4 Translators • Ansoftlinks V4.x for EDA (all option) 	Simulation
IE3D-SSD Software	Simulation
Spectrum Analyzer (9 to 18 GHz)	Antenna radiation pattern measurement.

coverage 20 GHz (FSL 18 1300-2502 K18)	
Perpetual License of CST studio suite™ educational license with accessories	Simulation
Agilent make, Model E4982A LCR Meter, 1 MHz to 3 MHz	L, C, R values measurement
<ul style="list-style-type: none"> • Agilent make 10 MHz to 13.5 GHz PNA Network Analyser with 2 ports, single source with configurable set, • Agilent Time Domain • Agilent Noise Figure Measurement using standard receiver • Agilent calibration kit 4-in-one open, short, load and through DC to 26.5 GHz, 3.5 MM(M) • Agilent USB sensor 10 MHz to 18 GHz, • Sucotest 18A RF cable 	S-parameter measurement
MS 9710B Optical spectrum Analyser, with option-37 FC connector	Frequency domain measurement
Monochromator with standard accessories (Base unit, Adaptor, Grat 1200L/MM, 350 BRLZ ¼, Micrometer Driven slit, Grat600L/M 1000 RBLZ ¼ M, Monochr. Illuminator, Power supply, Cooling ctr, PBSE Detector, Filters & Opto-electric access	Research purpose
<p>Fiber Optics Holder x-y-z & 2-A, Tilt Standard Fiber Chuck</p> <p>Stn. Micr. Object 25.0x0.50F=7.2 side loading fiber chuck standard micr.</p> <p>Object 40.0x0.65F=4.6</p> <p>Plano convex 1.50x1.0FL,</p> <p>Plano convex 5.00x10.0FL,</p> <p>Plano convex 8.00x15.0FL,</p> <p>Woll PR 10mm 20 DEG Dev</p> <p>Post Rotator, M6 with M6 screws 07</p> <p>Adaptor 12mm ¼-20 FEM M6 screws 07</p> <p>20NM NTR polarizer, 625-780NM,</p> <p>IR Polar 1250-1550 nm 12.5 MMD</p> <p>12.5MM Plate BS 50/50 450-700 NM,</p> <p>12.5 MM Plate BS 50% 700-1050 NM</p>	Research purpose
<p>Fiber special with connector on end of fiber pigtail</p> <p>Laser diode mount HHL type post 21N platform</p> <p>Assembly clamp post</p> <p>Adaptor, thread (1/4 to 8-32)</p>	Research purpose

LD Driver (1000/2500MA) Laser diode driver/mount cable Temperature controller (50W) Temperature controller/mount cable Filter, Tunnable bandpass Erbium doped optical fiber	
Optical Time Domain Reflectometer, with GIF 0.85UM unit SMF 1.31/1.55 UM unit, Battery pack	Research purpose
Optical Fiber Fusion Splice Machine with standard accessories – 1 set	Research purpose
Anristu model MX3607B, OTDR Emulation software with standard acc. on FOB basis. OTDR simulation software	Research purpose
980 nm, Laser diode, laser diode module single mode pigtailed laser in a butterfly package o/p power – 100 mW. Model no. LDM-14B-980-100-S-01-APC 148 nm, laser diode, module single mode pigtailed laser in a butterfly package, o/p power 100 mW, base diode mount, Optical laser system. Model: LDM-14B-91480-100-S-01-APC 1550 nm laser diode with laser mount and optical laser system. Model: LDM-14B-1550-100-S-01-APC	Research purpose
Material Studio 6.0 Academic Bundle including <ul style="list-style-type: none"> • Academic Standard Base 60 months term license • Academic Standard Quantum 60 months terms license • Silver level maintenance contract upgrade PR12101-SVCS Training 	Simulation
Optsim v2013 12-1, single user node locked academic license for windows XP/VISTA/7/8 consisting of 1 CD with software, 1 USB security & Dongle 16848802	Simulation
ST Series Optical Table consisting of <ol style="list-style-type: none"> 1) smart table top level 2) set of 4 s-2000 active leveling 3) air compressor 4) ST Bucket assembly 	Research purpose

APSYS Basic QW edition Physical Modeling of Semiconductor devices with manual	Simulation
SILVACO Full T CAD Omni Bundle (single license)	Simulation
APSYS Physical modeling of semiconductor Devices optics module (additional module with the existing license)	Simulation
RF Absorbers for Anechoic chamber Model: JVMFU21, JVMFU18, JVMFU12 & JVMFU9	Antenna Measurement
Materials for construction of Shielded Anechoic Chamber	Antenna Measurement
Dual Chamber Physical Vapor deposition unit	Deposition of thin film of metal insulator (oxide) mainly and semiconductor materials

Department of Environmental Science and Engineering

Facilities/Equipment	Key Applications
Electro Phoratic Unit	DNA Analysis
Shaker-cum-incubator	Bacterial growth analysis
Gas chromatography (GC)	Gas, HC & Halogenated compounds analysis
Total organic carbon	Total & dissolved organic carbon analysis
UV-VIS Spectrophotometer	Quantitative determination of various analysis
PCR	Amplify segments of DNA
Refrigerated centrifuge	DNA/RNA extractions
Automatic autoclave	Moist heat sterilization
Orbital unicubator shaker	Culturing microbes
Fume hood	Reduces exposure to hazardous fumes
HPLC	Analysis of PAHs, pesticides, organic compounds.
Zeta Potential Analyser	To determine zeta potential
Ozonator	Wastewater treatment
Kjelflux	Total & available N.
CHNS analyzer	CN analysis of volid samples
Shear strength apparatus	Slope stability for reclamation
Permeability apparatus	Hydrological behavior
Proctor test apparatus	Strength properties of soil
Oedometer	Consolidation of soil
Spectrophotomer	Cation and anion analysis
Electro chemical analyzer	Electro chemical analysis
Atomic Absorption Spectrophometer	Trace & heavy metal analysis
Reactor Photocatlytic	Pharmaceutical product &, drinking water analysis

Centrifuge	Separation of adsorbents after adsorption studies
Orbital shaker	Adsorption studies

Department of Fuel and Mineral Engineering

Facilities/Equipment			Key applications
Name	Make	Model	
Atomic Absorption Spectrophotometer	ThermoFischer	iCE3000 Series	Heavy metal elemental analysis
Thermal Analyzer	NETZSCH	STA 449 F3 Jupiter	TG-DTA analysis
Bomb Calorimeter	LECO	AC-350	GCV of coal sample
CHNS Analyzer	Vario	EL III	C, H, N, S, O, Gases Composition analysis
Particle Size Analyzer	Malvern	Mattersizer 2000	0.2 -2000 micron size particle analysis

Department of Mining Machinery Engineering

Facilities/Equipment	Key Applications
Pin on Disk	Friction and wear analysis
Programmable Logic Controlled Two-Motor Hydrostatic Summation Drive Make:Rexroth	Performance of the closed loop hydrostatic transmission system at varying load achieved through pump loading. Automatic changing from single motor to two motor drive or vice-versa with the changing of motor loading through PLC
Hydraulic and Pneumatic Trainer Make:Rexroth	Hands on experiments of electro hydraulics fluid power circuits
Wind Tunnel	Study of aerodynamics
Vibration signal analyzer	To study Sound Level Meters, Noise Dose Meters & Vibration Meters
Hydraulic Excavator Make: Rexroth	For study and experimentation
Name: Hydrostatic transmission system with pump loading Make: Parker	Continuous monitoring, performance analysis and online fault diagnosis of hydraulic transmission system.
Name: Hand arm vibration Make: B&K Model: 4447	Whole Body Vibration

Department of Mechanical Engineering

Facility/ Equipment	Purpose/Use	Make, Model
Ferrograph	Wear debris analysis of used oil	Spectro, T2FM-Q500
Pin on Disk	Friction and wear analysis	Ducom, TR-201 LE

Viscometer	Measurement of viscosity, density and viscosity index	Anton Paar, SVM 3000
Dual Axis Parabolic Trough Solar Collector	Water heating by solar energy	Ecosense Sustainable Solutions Pvt. Ltd., EcoSCTS – 2.1
Modal Vibration control	Active vibration modal control of composite structure	Dspace & B&K
Magnetic Levitation System	To study real time control action to maintain the ball stabilized in mid-air actuated by an electromagnetic force and track the ball position to a desired trajectory.	Quanser – Canada, Model No. 33700
Twin Rotor MIMO System	To study real time digital control of a system having non-linearity and significant cross-coupling.	Feedback – England, Model No. 33-007-PCI
Impedance Tube Facility	To characterise Acoustic properties of screech liners of a jet fighter	Indigenously built Sensors and DAQ from B&K
Wire EDM with ELCAM software	To generate complex profile on hard exotic materials with greater accuracy	ElectronicaMaxi-e
EDM machine	To investigate machinability of different exotic materials	SPARKONIX ZNC/ENC35
Lathe Machining set up with MQL unit	To analysis machining characteristics under different environments	HMT Lathe (NH22) machine with Kistler force dynamometer
LASER Processing set up	To carry out investigation for different laser processing of materials like laser cladding, bending, sintering etc	REDPOWER SPI 50-400 Watt R4 HS Fibre laser
Universal testing machine	Tensile test, compressive test, fracture, three and four- point bending test.	Hounsfield H50ks
Fatigue testing machine	Fatigue test, tensile and compressive test.	BiSSITW Bangalore

Department of Mining Engineering

Major Facilities/ Instruments	Research Area
<ul style="list-style-type: none"> • Precise instruments, for carrying out pressure – quantity surveys in mines. • Experimental set-up, for studying methane emission from coal seams. • Quick thermal conductivity meter, to measure the thermal conductivity of rocks. • Real time aerosol monitor, gravimetric dust sampler, personal dust sampler, konimeter with projector, for studying the air borne respirable dust concentration in mine air. • Digital sound level meter with recorder, for studying noise levels in mines and mining areas. • Facilities for studying CPT and IPT, Sz-index and U-index for finding the susceptibility of coal to spontaneous heating. • Experimental set-up, to study coal-dust explosion hazard. • Microprocessor based Gas Chromatograph System, for detection and measurement of different gases in the mine air. • Mine ventilation computation laboratory, for computation of ventilation problems, is a part of the Mine Ventilation and Environment Laboratory. • Artificial lung machine and related set-up for simulation of rescue operations in mines, the first of its kind in an educational institution 	Mine Ventilation and sub-surface Environmental Engineering
<ul style="list-style-type: none"> o Material Testing System (MTS) (100 tonnes), an electro- hydraulic stiff testing machine, is used for testing the various physico-mechanical properties of rocks under different conditions of loading. o Compression testing machine (600 tonnes), is used for determining various strength parameters of rocks & building materials and for testing of mine supports including hydraulic legs for longwall roof support. o Transducers and Sensors, consist of precision Load Cells, Pressure Transmitters, Pressure Transducers, Strain Gauges and LVDTs. These are invariably used with on-line PC based Data Acquisition System for recording test parameters. 	Rock Mechanics & Ground Control

<ul style="list-style-type: none"> o PC Based Data Acquisition System, a state of the art 8- Channel Data Acquisition System with sampling rate of 9999 samples per second for on-line acquisition of test data like strain, displacement, pressure, load, temperature etc. This is used invariably in all the laboratory experiments. o MINIFRAC is used for determining the in-situ stresses in rock mass by hydro-fracturing technique. o Hydraulic Leg testing facility, for testing Powered Roof Support used in longwall mining. This is a DGMS approved facility. 	<p>Rock Mechanics & Ground Control</p>
<ul style="list-style-type: none"> • Electronic total station, for all types of spot surveying with high speed and accuracy. • Gyromat, for determination of True North in Underground as well surface. • Laser eyepiece, for correlation survey with high accuracy. • Digital & Precise level, for carrying out subsidence survey & monitoring • Micro-optic theodolite, precise & digital levels and other instruments, for all types of surveying and leveling. • Global Positioning System (GPS) and GNSS system. • Mine surveying computation laboratory with surveying software (LISCAD, SURPAC, SKI-PRO, T-COM, LEICA- • GEOFFICE, PROLINK etc.) forms a part of the Survey Laboratory. • Digitizer, Scanner (AO) and plotter for development of survey plans, digitization of old plans and converting. • GIS Software mainly ARCGIS suites and Geomedia Professional, for extracting and processing the information from mine plans and to update them with the latest information. • Remote Sensing Softwares mainly ERDAS imagine and Leica Photogrammetry suites for processing satellite imageries. 	<p>Mine Surveying & Geomatics</p>

- High speed video camera, for study of mechanics of rock fragmentation, and movement of rock mass and projectiles.
- WipFrag/WipJoint software, for rock fragmentation and distribution analysis using the digital images acquired by a video camera.
- JKSIMBLAST Software: Blast sequencing
- Vibration recorders and sophisticated chip based micro seismographs, to record blast vibration levels and analyze peak particle velocity, dominant frequency, FFT analysis and safe vibration levels.
- VOD probe, for measuring velocity of detonation of explosives inside a blast hole.
- Cerchar hardness apparatus, for estimation of rock hardness and selection of drilling parameters
- Near-field vibration measuring set-up, for understanding the rock–explosive interaction for blast induced rock damage (BIRD) assessment.
- Fracture toughness of rocks - for energy consumption studies
- Micro-hardness of rocks - for dimensional stone mining
- Drilling Rate Index (DRI) - for TBM performance prediction.
- Cerchar Abrasively Index - for cutting tool consumption
- Seismic velocity of rocks (rock/rock mass) – for Drillability, Blastability / cuttability
- Underwater Blast vibration monitors
- Slim Borehole Scanner Type SBS – for geological / geotechnical characterization through Optical examination of borehole walls
- Sievers’ J - Value – for drillability of rocks
- Brittleness Index – for measuring of rock resistance for TBM/ Roadheader selection
- Cavity Auto Scanner System - for survey for underground voids & cavities
- Bemek Rock Tester- for Power rating of cutting machines/ Indirect method for strength determination
- Exploration Seismograph-GEODE 8 Channel – for seismic refraction survey for Ripper/Dozer selection
- Leitz micro hardness tester- for measuring the length/depth of indentation of rock sample
- Trinocular Polarising Microscope (Model CX31P) magnification range 40X to 100X , with related analyzing software – for thin section analysis of rock(Petrography study)
- Motorised Load Frame 500Kn Capacity – for Measuring of rock resistance and compression & penetration loads required for rock fracture toughness test.

Design of Excavation
Systems & Mechanical
Cutting of Rocks

<ul style="list-style-type: none"> An unique 30 Meter longwall mock gallery with Powered Support, Shearer, AFC, Stage Loader, Power Pack etc, a facility which is not available in any other institute in India 	Longwall Mining
<ul style="list-style-type: none"> SURPAC (Version 6.1) Mine Planning software package, for mine planning and design (5 user nodes) MATLAB 6 for simulation & modelling Micromine: Mine Planning software package, for mine planning and design (20 user nodes) Datamine (5 user nodes) MATLAB 6 for simulation & modeling MINEX (10 user nodes) for Mine Planning 	Mine modeling & simulation
<ul style="list-style-type: none"> Strand – 7 (Version 2.3.6) Finite Element package, for solving 2-D & 3-D linear and non-linear static and dynamic problems. FLAC – 2D (Version 4.0) Finite Difference software for solving linear and non-linear problems including support problems for excavations in rock. ANSYS 10. Finite Element Modelling Package for solving linear and non-linear problems including support problems for excavations in rock. Galena for slope stability problem 	Numerical Modeling in Mines

Department of Petroleum Engineering

Generic Name of Equipment	Model, Make & year of purchase	Key Application
Syringe pump for injecting oil, water and polymer solutions through the core	Teledyne Isco 65MD; (2 Nos)	Core flooding Experiments
Rheometer	Physica MC1,	Rheological study of different solutions
Polarizing Microscope with image processing software	OLYMPUS, BX51P,	Microscopic picture of liquid/solutions
Core cutting machine for various diameter core plugs.	Indigenous, 2000	Cutting of reservoir rock of different sizes
TOC Analyzer	Alliance Technology	Total oil content in waste water
Gas Chromatography	Thermofisher, 1000	Compositional analysis of gases and liquids
Helium Porosity meter	Corelab	Measurement of porosity of rock

FTIR	Perkin Elmer	infrared spectrum of absorption of solid liquid samples
Spinning drop tensiometer	Dataphysics	Ultra-low interfacial tension between two immiscible liquids
Tensiometer	Kruss	IFT measurement by Du-Nouy principle

8.3 Important Collaborative Work

Department of Applied Chemistry

Organization/ Laboratory	Nature of Interaction
Department of Physics and Astronomy, Materials Theory, Uppsala University, Sweden	Collaborative work on Theoretical simulation for energy storage
Pohang Accelerator Laboratory, POSTECH, Republic of Korea	Collaborative work for crystallographic study
New Chemistry Unit, JNCASR, Jakkur, Bangalore, Karnataka	Collaborative work for crystallographic study
SMST, IIT Kharagpur	Collaborative work on cell cytotoxicity study
CSMSRI, Bhavnagar	Characterization and applications of nanocomposites
IIT Hyderabad	Collaborative work
Philipps University Marburg, Germany	Collaborative work for single crystal X-ray diffraction analysis of synthesized compounds
Ghent University, Belgium	Collaborative work
Department of Biotechnology, Indian Institute of Technology, Kharagpur	Collaborative work for biological study
Immunology and Microbiology Laboratory, Department of Human Physiology with Community Health, Vidyasagar University	Collaborative work for biological study
Department of Life Science and Biotechnology, Jadavpur University	Collaborative work for biological study

Department of Applied Geology

Organization / Lab	Nature of Interaction
<ul style="list-style-type: none"> • Department of Mines and Quarries, Institute of Mines and Petroleum Industries, University of Maroua, Maroua, Cameroon. • CODES ARC Centre of Excellence in Ore Deposits, University of Tasmania, Hobart Tasmania, Australia • Department of Earth Sciences, University of New Brunswick, Canada 	Research Publications co-authored by these groups

Central Institute of Mining and Fuel Research, Dhanbad	Adsorption of methane on various geological materials
Northern Carbon Research Laboratories, Newcastle upon Tyne, UK	CO ₂ adsorption on various geological materials
Hokkaido University, Japan	Kerogen Petrology
University of Queensland, Australia	Gas analyses
Airie Program, Colorado State University, USA	Collaborative research work sponsored by National Science Foundation (NSF), USA, for Re-Os geochronological work in the Central India.
Wadia Institute of Himalayan Geology	Research Work & Project
Birbal Sahani Institute of Paleo Botany	Research Work
NGRI, Hyderabad	Research Work & Project
University of Wollongong, Australia	Research & Publication work
Indian Institute of Science, Bangalore	Research & Publication work
Physical Research Laboratory, Ahmedabad	Research & Publication work
Indian Institute of Technology-Kharagpur, CSIR, National Geophysical Research Institute-Hyderabad,	Research & Publication work
CSIR, National Institute of Oceanography-Goa	Research & Publication work
Central Ground Water Board	Monitoring of Ground water levels in Artificial Recharge structures in ISM Campus
University College London	Discussion with faculty members of Department of Geology of UCL on REE collaboration
Hindustan Zinc Limited, Udaipur	Geostatistics in Mineral Industry

Department of Applied Geophysics

Organization/Laboratory	Nature of Interaction
National Geophysical Research Institute, Hyderabad	Seismic and Well Data Sharing and interpretation of Seismic data
NRSC, ISRO, Balanagar, Hyderabad	Joint research collaboration
SAC, ISRO, Ahmedabad	Joint research collaboration
ISR, Gandhinagar	Joint research collaboration
NGRI, Hyderabad	Joint research collaboration
WIHG, Dehradun	Joint research collaboration
Department of Archaeology, University of Calcutta	Joint research collaboration
University of Texas, Austin, USA	Collaborative research in Seismology
Baylor University	Working on finding subsurface structure of Northeast Caribbean and seismological data from Southeastern United States.

Department of Applied Mathematics

Organization/lab	Nature of Interaction
Faculty of Military Science, Stellenbosch University, South Africa.	Collaborative Scientific Research
Mechanical Engineering Department, Prince Mohammad Bin Fahd University, Al-Khobar, Kingdom of Saudi Arabia.	Collaborative Scientific Research
Department of Civil Engineering University of Birmingham Edgbaston, Birmingham, U. K.	Collaborative Scientific Research
Department of Mathematics, O. P. Jindal University, Raigarh, Chattishgarh, India	Collaborative Scientific Research

Organization/lab	Nature of Interaction
Department of Mathematics, Vijayanagara Sri Krishnadevaraya University, Bellary, Karnataka, India	Collaborative Scientific Research
Department of Mathematics, NIT Jamshedpur, Jharkhand, India	Collaborative Scientific Research
Department of Mathematics, School of Mathematical and Physical Sciences, University of Sussex, Brighton, UK	Collaborative Scientific research
Department of Mathematics, Clarkson University, Potsdam, NY, USA	Collaborative Scientific research
UniHavre, LMAH, FR CNRS 3335, ISCN, Normandie University, France	Collaborative Scientific research
Indiana University& Purdue University, USA	Collaborative Scientific research
School of Mathematics and Statistics, Mathematical Institute, St Andrews, Scotland	Collaborative Scientific research
Deptt. of Mathematics, Banaras Hindu University, Varanasi	Collaborative Scientific research and Development of Mathematical techniques, fuzzy topology and theoretical computer science.
Department of Mathematics, National Institute of Technology, Raipur, India	Collaborative Scientific research
Department of Mathematics, Bengal Engineering and Science University, Shibpur, India	Collaborative Scientific research
School of Mathematics, Thapar University, Punjab	Collaborative Scientific research
Department of Civil & Environmental Engineering, Biological and Agricultural Engineering, Texas A and M University, USA	Scientific research and Development of Mathematical techniques under joint research activity
Department of Earth Sciences, Perugia University, Perugia, Italy	Scientific research and Development of Mathematical techniques under joint research activity
Yazd University, Iran	Collaborative research work on theoretical computer science.
Institute for Research and Applications of Fuzzy Modeling, University of Ostrava, Czech Republic	Collaborative research work on F- transform.
Universiti Tun Hussein Onn, Malaysia	Collaborative research work on theoretical computer science.
Computing Laboratory, IIT, Hyderabad	Stability of Fluid Flow Interactions in Porous Media Heat Transfer
University of Lodz, Poland	Collaborative research work
Institute of Mathematical Statistics and Applied Mathematics, Romanian Academy, Romania	Collaborative research work
King Fahd University of Petroleum and Minerals, Republic of Saudi Arabia	Collaborative research work

Organization/lab	Nature of Interaction
IIT, Guwahati	Collaborative research work

Department of Applied Physics

Organization/ Laboratory	Nature of Interaction
University of The Free State, Bloemfontein, South Africa	Measurements of life time, characterization of luminescent materials
UGC-DAE Consortium for Scientific Research, Indore	Collaborative research work for synthesis of thin films by PLD/GI-XRD /XPS studies
Inter University Accelerator Center, New Delhi	Collaborative research work for Swift Heavy Ion Beam/ γ -Irradiations and Thermoluminescence studies of materials.
Department of Physics, Benarus Hindu University, Varanasi	Collaborative research work on Liquid Crystals
Institut für Theoretische Physik II - Soft Matter Heinrich-Heine-Universität Düsseldorf	Collaborative research work on Colloids.
Faculty of Science, Malaya University, Malaysia;	Collaborative research work on supercapacitors (ECs);
Physics & Material Chemistry Division, NCL, Pune;	Collaborative research work on electrochemical properties
Bhabha Atomic Research Center, Trombay, Mumbai	Collaborative research work on electrochemical properties
Bose Institute, Kolkata	Collaborative studies on synthesis and characterization on various dielectric materials
NIIST, CSIR, Trivandrum	Characterization of superconducting materials
IIT Bombay	Optical properties of boron nanoclusters
IASST, Guwahati, Assam	Organic semiconductors
KEK Photon Factory, Japan;	Collaborative studies on X-Ray Magnetic Circular Dichroism (XMCD) Investigations on Semiconductor Nano Structures
Nanocrystals Technology (NCT), USA	Collaborative studies on Magnetic Nanoparticles
Michigan Technological University, Houghton, USA	Collaborative studies on Magnetic Nanoparticles and Semiconductor Nano Structures
Michigan Technological University, Houghton, USA Linköping University, Sweden	Collaborative studies on EPR Investigations of Semiconductor Nano Structures
National Institute of Materials Science (NIMS), Tskuba, Japan	Collaborative studies on EPR Investigations of Semiconductor Nano Structures
Institute of Physics, West Pomeranian University of Technology, Poland	Collaborative studies on EPR Investigations of Semiconductor Nano Structures

Organization/ Laboratory	Nature of Interaction
Department of Physics, Solid State Physics, University of Athens, Greece	Collaborative studies on EPR Investigations of Semiconductor Nano Structures
IIT, Kanpur	Collaborative research on Large D black hole dynamics
Bio-photonics Imaging Lab (BIL), University of Illinois at Urbana Champaign, USA	Collaborative studies on human retinal thickness measurement for early disease detection of Multiple Sclerosis (MS) and Diabetic Retinopathy (DR) using optical coherence tomography(OCT)
TIFR, Mumbai	Multiphoton in-vivo imaging
SINP, Kolkata	Single molecule Biophysics
IICB, Kolkata	Protein dynamics

Department of Chemical Engineering

Organization / Lab	Nature of interaction
Chemical Engineering Department, IIT Kanpur	Joint Ph.D. guidance

Department of Civil Engineering

Organization / Lab	Nature of interaction
Texas Tech University, USA	Collaborative Research
Department of Civil and Environmental Engineering, University of Surrey, UK.	Collaborative Research

Department of Computer Science & Engineering

Organization / Lab	Nature of interaction
NPCIL, Department of Atomic Energy, Government of India	Collaborative Research

Department of Electronics Engineering

Organisation / Laboratory	Nature of Interaction
Department of Electrical & Electronics Engineering, City University, London, UK	Collaborative research on silicon waveguide based sensors and multi core fibers.
Department of Electrical Engineering, University of Colorado, USA	Collaborative research on silicon waveguide based photonic devices
Department of Electronic Engineering, Military Technical College, Cairo, Egypt	Collaborative research on Metamaterial Antennas
Department of Electrical Engineering University of Quebec, Canada	Collaborative research on Dielectric Resonator Antennas

Department of Environmental Science & Engineering

Organization/Lab	Nature of Interaction
National Institute of Miners Health, Nagpur	Joint Ph.D. guidance
ARIES, Nainital	Joint Ph.D. guidance

Department of Fuel & Mineral Engineering

Organisation/Lab.	Nature of Interaction
Indian Institute of Technology, Guwahati (IITG), University of Porto (FEUP), Portugal, Technische Universitat Munchen (TUM), Germany, and Jadavpur University (JU)	Collaborative research project sponsored by INNO INDIGO EU MS/AC and India Joint Call on Clean Water and Health
CSIRO, Australia	Collaborative research proposal submitted under Indo-Australian Clean Coal Initiative
IIT Kharagpur	Participated as external faculty member in the first programme on Separation of fine and ultra-fine particulates in fluid medium: fundamentals and applications in mineral and coal processing, organized under GIAN/MHRD
IMMT, Bhubaneswar	MOU has been signed to carryout collaborative research work of mutual interest
University of New Castle (NIER), NSW, Australia	Application of Reflux Classifiers for washing of Indian Coal Fines

Department of Mechanical Engineering

Organization / Lab	Nature of Interaction
Politecnico di Torino, Italy	Research collaboration
University of Maribor, Slovenia	Joint Ph.D. programme under Erasmus Mundas
Department of Material Disintegration, Institute of Geonics, Czech republic	Joint Ph.D. & M. Tech programmes

Department of Mining Engineering

Organisation/Lab	Nature of Interaction
Curtin University of Technology, Australia	Collaborative Ph.D. Programme
The University of New Castle, Australia	Research collaboration related to coal mining
UPorto, Portugal, and UPM, Madrid, Spain	International Student /Faculty /Administrative Staff Exchange projects namely Mobile+ and Erasmus+
SIMTARS, University of New South Wales, University of Wollongong, Sustainable Mining Institute (SMI), University of Queensland	MoU signed with Australian Universities and Organisations
Monash University, Australia	Endeavour Faculty Exchange programme

Department of Petroleum Engineering

Organization / Lab	Nature of Interaction
Oil India Ltd.	Two collaborative research projects
Mercator Petroleum Ltd.	Characterization of shale from Cambay basin
CSIR-CIMFR Dhanbad/ NIT Durgapur	Joint research on Role of Coal Composition and maturity on the Sorption Behaviour of Indian Coal for Gas Storage Estimation

NIT Durgapur	Joint Research on Experimental Investigation on Transesterification of Non-Edible Oils Employing Heterogeneous Carbon Based Chemical and Biocatalyst in Batch and Packed Bed Reactors
NIT Durgapur	Joint research on Studies on Lubricants used in various Industrial applications
Oil India Ltd.	Collaborative research project sponsored by Oil India Ltd

8.4 Seminars, Conferences and Workshops Organized

Name of the Seminars, Conferences and Workshops	Date
Workshop on “Ethics and Professional Values in Technical Education”, Department of Humanities and Social Sciences.	August 05, 2016
Workshop on “Basic Introduction to Optoelectronic Device Modelling and Simulation Tools”, Department of Electronics Engineering.	September 03, 2016
Workshop on “Smart Grids”, Department of Computer Science & Engineering.	September 16, 2016
Seminar on “Potential of Solar Photovoltaic for Climate Change Mitigation”, Department of Applied Physics.	September 16, 2016
SLDC – 2016, Department of Mechanical Engineering.	October 18-20, 2016
Khanan – 2016, Department of Mining Engineering.	September 2 – 4, 2016
Workshop on “Energy Resources: Future Prospects of Fuel and Chemicals”, Department of Chemical Engineering.	November 07-08, 2016
Annual Convention of Indian Geophysical Union and 1st FIGA Triennial and 34th AHI meeting.	November 08-10, 2016
National Conference on Liquid Crystals (NCLC-2016), Department of Applied Physics.	December 07-09, 2016
3rd International Conference on Applications of Fluid Dynamics (ICAFD-2016), Department of Applied Mathematics.	December 19-21, 2016
International conference on “Challenges and Prospects of Petroleum Production and Processing Industries”, Department of Petroleum Engineering.	January 12-14, 2017
Geoconfluence- 2017, Department of Applied Geophysics.	January 27-29, 2017
Turbulence-2017.	January 28-29, 2017
Workshop on “Emerging trends in Photonics Technologies”, Department of Electronics Engineering.	February 03-04, 2017
Workshop on “Industrial Automation using PLC”, Department of Electronics Engineering.	February 08-12, 2017
Workshop on “Communications and Multimedia Security”, Department of Computer Science & Engineering.	February 09-10, 2017
Spectrum 2K17.	March 04-05, 2017
First Annual Workshop on “Catalysis”, Department of Applied Chemistry.	March 06-09, 2017
KHANIJ-2017, Department of Fuel & Mineral Engineering.	March 19, 2017
Industry-Institute Interaction (III-2017).	February 4, 2017

8.5 Deputation of Faculty Members Abroad

Department of Applied Geology:

- Prof A S Venkatesh presented two papers in the 35th International Geological Congress from 27 August – 4 September, 2016, Cape Town, South Africa.
- Prof. B C Sarkar visited Cape Town, South Africa to attend 35th International Geological Congress, Cape Town, South Africa, 28 August – 03 September 2016.

Department of Applied Geophysics:

- Dr. Sanjit Kumar Pal visited Nepal for Consultancy work on Seismic Refraction Tomography.
- Dr. Mohit Agrawal visited the USA to work on computing synthetic seismograms for developing a novel and robust technique to add in the toolbox of receiver functions analysis.

Department of Applied Physics:

- Dr. B. K. Antony visited NFRI, Gunsan, Republic of Korea from September 25-29, 2016 to attend the 10th International Conference on Atomic and Molecular Data and Their Applications (ICAMDATA 2016).
- Dr. B. K. Antony visited IAEA Headquarters, Vienna, Austria from December 19-21, 2016 to attend Technical Meeting on Uncertainty Assessment and Benchmark Experiments for Atomic and Molecular Data for Fusion Applications.

Department of Chemical Engineering:

- Shri Suresh Kumar Yatirajula visited Alicante, Spain for two days from 10-11 November 2016.

Department of Civil Engineering:

- Prof. S. C. Dutta and Dr. Sanket Nayak carried out collaborative research work during October, 2016, as academic visiting researcher in Department of Civil and Environmental Engineering, University of Surrey, UK.

Department of Environmental Science & Engineering:

- Dr. P. Saravanan delivered invited Lecture at 2nd International Workshop on Graphene and C₃N₄-based Photocatalysts (IWGCP2) Organized by State Key Laboratory of Advanced Technology for Materials Synthesis and Processing, Wuhan University of Technology, Wuhan, China, March 24 - 27, 2017.

Department of Fuel and Mineral Engineering:

- Dr. Shravan Kumar visited Denver, USA to attend SME Annual Conference and Expo, March 19-22, 2017.
- Dr. Barun Kumar Nandi visited University of Porto, Portugal during 17-23 July 2016 to participate in the second project meeting of Ongoing INNO-INDIGO research Project “HyWATER-Treatment of contaminated drinking water using a hybrid low-cost Process.”
- Dr. Barun Kumar Nandi visited Colorado Convention Centre, Denver, Colorado, USA during 19-23 February 2016 to present a research paper entitled “Combustion Characteristics of Coal Blends” in SME Annual Conference & Expo-2017.

Department of Management Studies:

- Govind Swaroop Pathak visited Yokohama, Japan, during July, 2016.
- Govind Swaroop Pathak visited Manila, Phillipines, during November, 2016.

Department of Mechanical Engineering:

- Dr A.R. Dixit visited Institute of Geonics, Ostrava, Czech Republic from 20th May, 2016 – 10th June, 2016 for a joint research in the field of Abrasive water jet machining.
- Dr A.R. Dixit visited Institute of Materia Technology, Faculty of Mechanical Engg, University of Maribore, Slovenia from 11th June – 12th June, 2016 for future collaborations in the field of Nano-structure materials and application.
- Dr. Somnath Chattopadhyaya visited Czech Republic, Slovakia and Slovenia to attend International Conference and worksop at Marobor, Slovenia from 15th May to 7th June, 2017.

Department of Mining Engineering:

- Prof. V.M.S.R Murthy, Prof. R.M. Bhattacharjee, Dr. Dheeraj Kumar & Dr. D.P. Mishra visited SIMTARS, Brisbane, Australia, JKMRC, University of Queensland (UOQ), University of New Castle (UON), University of New South Wales (UNSW) and University of Wollongong (UOW) during 29th August – 7th September 2016 to explore the possibilities of collaborative research and students/faculty exchange programmes.
- Dr. A.K.Verma visited Monash University, Australia as Endeavour Fellow.

Department of Petroleum Engineering:

- Dr. Ajay Mandal & Dr. Vikas Mahto carried out collaborative research work in Fuels and Energy Technology at Institute of Curtin University of Technology under the Australia-India Joint Research Centre for Coal and Energy Technology from 20 September 2016 to 30 September 2016.

8.6 Field Visits, Excursions and Training**Department Applied Geology**

Particulars	Batch of Students	Place of Visit	Period of visit
Geological mapping training in deformed metamorphic terrain	38 students of IV Sem. M.Sc Tech Applied Geology	Around Turamdih, Bandhuhurang, Surda Tatanagar, Jharkhand	18.12.2016 to 28.12.2016
Sedimentary Terrain mapping	II M. Sc. Tech and VI Integrated M. Tech (AGL)	Ara-Dumerbera, Dudhinala, Kuju	17.12.2016 to 26.12.2016
Geological mapping training in deformed metamorphic terrain”	38 students (IV M.Sc. Tech. (AGL) and VIII Integrated M.Sc. Tech. (AGL) students)	Ghatsila and adjoining areas, east Singhbhum District, Jharkhand	17.12.2016 to 27.12.2016
Local Geological Field Excursion	II M.Sc.Tech AGP +VI M.Sc. Tech. Integrated	In and around Jharia Coalfield	19.12.2016 to 28.12.2017

Sedimentary Terrain mapping	For II- M.Sc. Tech, AGL and VI-Int-AGL	Ara –Dumarbera Colliery, Dudhi Nala Section, Western Bokaro Coal Field.	December-2016.
Field training on 'Sedimentary terrane mapping'	II M.Sc. Tech. (AGL) & VI Int. M.Tech. (AGL)	Raniganj sedimentary basin, W.B.	16.12.2016 to 26.12.2016

Applied Geophysics

Particulars	Batch of Students	Place of Visit	Period of visit
Winter Geophysical Field Training.	Three Years M. Sc. Tech (AGP), and Five Years Int. M. Sc. Tech (AGP) Pre-final Year	Jaduguda-Narwa Phahar, Uranium Corporation of India Limited (UCIL)	December 17, 2015 to December 28, 2017

Applied Physics

Particulars	Batch of Students	Place of visits	Period of visits
Workshop	Ph.D (Irshad Ahmad)	Bharatidasan Univeristy, Tamil Nadu	19-23 December, 2016
Summer Training	V Sem. B. Tech.	Nuclear Power Corporation of India Limited, Rawatbhata Central Scientific Instruments Organisation (CSIO-CSIR) CDC HCL, Bhopal Hewlett Packard, Patna Aptech Computer Education, Rewari (Haryana) Defence Research & Development Establishment Emami Limited, Kolkata PEC University of Technology, Chandigarh IUAC Delhi	May-June, 2016
	III rd Sem. M.Sc. (Physics)	Swami Shraddhanand College, University of Delhi, Delhi Jadavpur University, Kolkata IIT Madras, Chennai S.N.Bose National	

Particulars	Batch of Students	Place of visits	Period of visits
		Centre for Basic Sciences, Kolkata Visva Bharati (Shantiniketan) Bolpur, Birbhum, W.B. N.I.T, Patna Central University of Jharkhand, Ranchi Netaji Subhash Institute of Technology, New Delhi Sarkar, Saha Institute of Nuclear Physics, Kolkata Institute for Plasma Research, Gandhinagar, Gujarat University of Calcutta, Kolkata Physical Research Laboratory, Ahmedabad, Gujrat Dept. of Physics and Astronomy, NIT Rourkela Dept. of Physics, Kirori Mal College, University of Delhi, Delhi Jamia Milia Islamia, Delhi Department of Physics, Hindu College University of Delhi, Delhi BIT Mesra, Ranchi Solid State Physics Laboratory, DRDO, Delhi I.A.C.S Kolkata Dept. of Physics I.I.T. Patna CSIR-CIMFR. Dhanbad Saha Institute of Nuclear Physics, Kolkata Variable Energy Cyclotron Centre, Kolkata Department of Physics, Indian	

Particulars	Batch of Students	Place of visits	Period of visits
		Institute of Science, Bangalore School of Physical Science, NISER, Bhubaneswar I.I.T. (BHU), Varanasi Dept. of Applied Physics and Photonics, University of Calcutta, Kolkata NIT Patna University Science Instrumentation Centre, University of Delhi, Delhi	

Electrical Engineering

Particulars	Batch of students	Place of Visit	Period of visit
One day industrial visit	5 th Sem B. Tech (EE) students	Maithon Hydel Power Station, DVC, Maithon	01.09.2016
One day industrial visit	5 th Sem B. Tech (EE) students	Maithon Hydel Power Station, DVC, Maithon	02.09.2016
One day industrial visit	7 th Sem B. Tech (EE) students	Maithon Hydel Power Station, DVC, Maithon	05.09.2016
One day industrial visit	7 th Sem B. Tech (EE) students	Maithon Hydel Power Station, DVC, Maithon	06.09.2016
One day industrial visit	5 th Sem B. Tech (EE) students	Maithon Hydel Power Station, DVC, Maithon	01.09.2016
One day industrial visit	5 th Sem B. Tech (EE) students	Maithon Hydel Power Station, DVC, Maithon	02.09.2016
One day industrial visit	7 th Sem B. Tech (EE) students	Maithon Hydel Power Station, DVC, Maithon	05.09.2016

Electronic Engineering

Particulars	Batch of Students	Place of Visit	Period of visit
Industrial Visit	V Semester B.Tech (EIE) students	Bokaro Thermal Power Plant, Bokaro	2 nd December 2016

Environmental Science & Engineering

Particulars	Batch of Students	Place of Visit	Period of visit
One Day Excursion	M.Tech 2 nd Semester	CTPS	
Educational tour/Excursion	I M.Tech	MPL Dhanbad	26.10.2016

Fuel & Mineral Engineering

Particulars	Batch of Students	Place of Visit	Period of visit
One Day Excursion	VII-B. Tech (MLE) & New JRF	CPP Chasnala	03/09/2016
One Day Excursion	I-M. Tech (MLE+FLE) & New JRF	Brahma Refractories Pvt. Ltd. Rajganj	03/09/2016
One Day Excursion	VII-B. Tech (MLE) & DDs	CPP Chasnala	10/09/2016
One Day Excursion	V-B. Tech (MLE)+DD	Sudamdih Coal Washery	22/10/2016
One Day Excursion	II-M. Tech (MLE+FLE) & New JRF	CPP Chasnala	10.03.2017
One Day Excursion	VIII Semester B. Tech (MLE)	Sudamdih Coal Washery	31/03/2017

Mining Engineering

Particulars	Batch of students	Place of visit	Period of visit
Local Excursion Monsoon semester	V Semester B. Tech and Dual Degree	Sonepur Bazari O CP, ECL	27/08/2016
Local Excursion Winter semester	VI semester B.Tech (ME) & Dual Degree (ME+ME) students Group-A	Bastacolla Mine, BCCL	10/12/2016
	VIII semester B.Tech (ME) students Group-A	Kankani OC Mine Fire Area, BCCL	03/12/2016
Annual Mine Surveying Camp	V Semester B. Tech and Dual Degree	IIT (ISM) Dhanbad	19.12.2016 to 08.01.2017
Singhbhum Excursion	III Semester B. Tech and Dual Degree	(i) Meghahatburu Iron Ore Mines, SAIL (ii) Jhinkpani Lime stone Quarry, ACC Ltd (iii) Jaduguda Mines, Narwapahar mines, UCIL.	3/01/2017 to 08/01/2017

Petroleum Engineering

Particulars	Batch of Students	Place of Visit	Period of visit
Summer Training	IV B.Tech PE	ONGC Ahmedabad Asset	09.05.2016 to 03.06.2016
Summer Training	IV B.Tech PE	ONGC Ahmedabad Asset	07.06.2016 to 08.07.2016

Training/Project	III M. Tech./PE	Petroleumsoft AS	26.10.2016 to 10.04.2017
Summer Training	IV B.Tech PE	ONGC Mehsana Asset	09.05.2016 to 03.06.2016
Summer Training	II M.Tech PE	ONGC Ankleshwer Asset	09.05.2016 to 03.06.2016
Summer Training	IV B.Tech PE	ONGC Bokaro	09.05.2016 to 03.06.2016
Summer Training	IV B.Tech PE	ONGC Cambay Asset	09.05.2016 to 03.06.2016
Summer Internship	V B.Tech PE	Halliburton	09.05.2016 to 03.06.2016
Industrial Training	VI B. Tech. PE	ONGC, IOGPT Mumbai/Panvel	06.06.2016 to 08.07.2016
Summer Internship	VI B.Tech PE	Baker & Huges, Andheri East, Mumbai	06.06.2016 to 08.07.2016
Summer Internship	VI B.Tech PE	Weatherford	06.06.2016 to 08.07.2016
Summer Internship	VI B.Tech PE	Shell Technology, India	06.06.2016 to 08.07.2016
Summer Internship	VI Dual Degree PE	IRS ONGC Ahmedabad	06.06.2016 to 08.07.2016
Summer Internship	VI B.Tech PE	Halliburotn	06.06.2016 to 08.07.2016
Summer Training	VI B.Tech PE	WSS, Ahmedabad	06.06.2016 to 08.07.2016
Summer Training	VI B.Tech PE	CBM Bokaro	09.05.2016 to 03.06.2016
Summer Training	VI B.Tech PE, VI B. Tech. PE	Mansarovar Energy, Bogota, Columbia	15.05.2016 -20.06 2016
Summer Training	VI B.Tech & DD PE	Imperial Energy, Tomsk, Russia	01.06.2016-04.07 2016
Summer Training	VI B.Tech PE	Khartoum, Sudan	15.05.2016 -20.06 2016
Winter Training	V B.Tech PE	ONGC Mehsana Asset	12.12.2016 to 06.01.2017
Winter Training	V B.Tech PE	ONGC Ahmedabad Asset	12.12.2016 to 06.01.2017
Winter Training	VI B.Tech PE	ONGC Ankleshwer Asset	12.12.2016 to 06.01.2017
Winter Training	V B.Tech PE	ONGC Mehsana Asset	14.12.2015 - 15.01.2016
Winter Training/Project	VII Dual Degree	IRS ONGC Ahmedabad	19-12-2016 – 08-01-2017
Winter Training/Project	V B. Tech.	IRS ONGC Ahmedabad	19-12-2016 – 08-01-2017
Winter Training/Project	Vth Sem B. Tech.	IOGPT, Mumbai	19-12-2016 – 08-01-2017
Winter Training	Vth Sem B. Tech.	ONGC, Mumbai	19-12-2016 – 06-01-2017
Winter Training	Vth Sem B. Tech.	ONGC, Bokaro Asset	19-12-2016 – 06-01-2017
Winter Training	Vth Sem B. Tech.	ONGC Rajamundry Asset	19-12-2016 – 06-01-2017

Winter Training	V B.Tech PE	ONGC, Karaikal	19-12-2016 – 08-01-2017
Winter Training	I M. Tech.	Oil India Limited	19-12-2016 – 13-01-2017
Winter Training	III B. Tech	Essar Oil Ltd. , Durgapur	19-12-2016 – 06-01-2017
Winter Training	III B. Tech	Central Mine Planning and Design Institute(CMPDI), Ranchi	19-12-2016 – 06-01-2017
Winter training	V Semester B. Tech	Reliance Industries Limited	12.12.2016 to 06.01.2017
Educational Excursion	IV sem B.Tech	IOC Bottling Plant, Bokaro	12 Feb 2016

9. AWARDS AND RECOGNITION

In the past years, IIT (ISM) has instituted several awards for faculty members, students and staff sponsored by different Organisations/Industries.

9.1 List of Awards

Sl. No.	Name of the Award/Scholarship	Sponsoring Agency	Year of Institution of Award	Discipline	No. of Award	Type of award
1	ISMAANA Academic Excellence Scholarship Award	ISMAANA (ISM Alumni Association of North America)	2015	<ul style="list-style-type: none"> Mining Engineering Petroleum Engineering Applied Geology Applied Geophysics 	8	Citation and a cash prize
2	Inder Mohan Thapar Foundation (IMTF) Research Award	Inder Mohan Thapar Foundation Trust, Karam Chand Thapar Group	2016	<ul style="list-style-type: none"> Mining Engineering Petroleum Engineering Environmental Science Applied Geology/Applied Geophysics (as one group) 	4	Citation and a cash prize
3	Nagendra Kumar Memorial Award of Excellence	ISMAA	2017	<ul style="list-style-type: none"> All Disciplines 	NA	Citation and a Plaque
4	ISMAA (ISM 1969 Batch) Research Awards	ISM 1969 Batch	2017	<ul style="list-style-type: none"> Mining Engineering Petroleum Engineering 	2	Citation and a cash prize
5	Research Publication Award for JRF of Electronics Engineering Department	ECE Department	2017	<ul style="list-style-type: none"> ECE Department 	1	Citation and a cash prize
6	Jagat Chandra Sarkar Memorial Award	Shri Sushanta Sarkar, a distinguished alumnus of 1966 Batch, Petroleum Engineering	2017	<ul style="list-style-type: none"> Mining Engineering 	1	Citation and a cash prize
7	Bhaskar Bhattacharjee Memorial Distinguished Alumnus Award	ISMAA and IIT (ISM)	2007	<ul style="list-style-type: none"> Alumni 	2	Citation and a Silver Plaque
8	Canara Bank Research Award (Group/Individual)	Canara Bank	2014	<ul style="list-style-type: none"> All Disciplines 	1	Citation and a Medal
9	ISMAA Award for guiding highest no. of Ph.Ds in last three years	ISMAA	2013	<ul style="list-style-type: none"> All Disciplines 	1	Citation and a Medal

Sl. No.	Name of the Award/Scholarship	Sponsoring Agency	Year of Institution of Award	Discipline	No. of Award	Type of award
10	ISMAA & SBI Awards for maximum resource generation during a financial year	SBI & ISMAA	2013	• All Disciplines	1	Citation and a Medal
11	ISMAA Best UG Student Award admitted through IIT-JEE	ISMAA	2013	• All Disciplines	1	Citation and a Medal
12	ISMAA Best PG Student Award	ISMAA	2013	• All Disciplines	1	Citation and a Medal
13	ISMAA Best Sports Person Award	ISMAA	2013	• All Disciplines	1	Citation and a Medal
14	SBI non-teaching employees Group Award	SBI	2014	• Non-Teaching Employees	1	Cash Prize and a Certificate
15	Merit cum Means Scholarship / Freeship	MHRD	—	• All Disciplines	1471	Tuition fee + Scholarship Rs.1000/- per month (For 10 month only)
16	Central Sector Scholarship	MHRD	—	• All Disciplines	40	Fess + Boarding charging refunded
17	Central Sector Scholarship	MHRD	—	• All Disciplines	20	Fess + Boarding charging refunded
18	Muslim Minority Scholarship	MHRD	—	• All Disciplines	18	Fee refunded
19	DST Inspire Scholarship	DST	—	• All Disciplines	55	Rs 60000/- per annum
20	Endowment Scholarships					
i)	Paritosh Pathikrit Endowment Scholarship	From Paritosh Pathikrit	—	• Mining Engg. • Petroleum Engg. • Mining Machinery • Mineral Engg. • Computer Science & Engg. • Electrical Engg. • Mechanical Engg.	02	Rs. 500/- per month
ii)	Indrajeet & Satyawati Badhwar Scholarship	—	—	• All Disciplines	01	Rs.1000/- per month
iii)	S.L.Sehgal Memorial Scholarship	—	—	• Mining Engg. • Mining Machinery • Mineral Engg.	02	Rs. 500/- per Month
iv)	ISS Scholarship	—	—	• All Disciplines	01	Rs. 1500/- (10 month only)
v)	Ishan Rajvanshi Merit Scholarship	—	—	• All Disciplines	03	Rs. 1000/- per month
vi)	Budhwanti Mrig Memorial Education Scholarship	—	—	• All Disciplines	02	Rs. 4000/- per month
vii)	Atlas Copco Scholarship	—	—	• Mining Engg.	01	Rs. 3000/- per month
viii)	Sanvik Scholarship	—	—	• Mining Engg.	10	Rs 75000/- p.a.

Sl. No.	Name of the Award/Scholarship	Sponsoring Agency	Year of Institution of Award	Discipline	No. of Award	Type of award
21	IIT (ISM) Cash Prize Award	IIT (ISM)	1986	• All Disciplines	Flexible	Certificate and a Cash Prize
22	ISM Gold Medal	IIT (ISM)	1974	• All Disciplines	Flexible	Certificate and a Gold Medal
23	ISM Silver Medal	IIT (ISM)	1974	• All Disciplines	Flexible	Certificate and a Silver Medal
24	SBI Best Student Shield Award	SBI Bank	2012	• All Disciplines	2	Cash prize of Rs. 50,000/- to 1 st and Rs. 25,000/- to 2 nd winner
25	Single Buoy Mooring (SBM) Gold Medal	Indian representative of Single Buoy Mooring Systems, France	—	• B Tech (Petroleum Engineering)	1	Certificate and a Gold Medal
26	Single Buoy Mooring (SBM) Silver Medal	Indian representative of Single Buoy Mooring Systems, France	—	• B Tech (Petroleum Engineering)	1	Certificate and a Silver Medal
27	V.L. Karwande Gold Medal	—	—	• B.Tech. (Mining Engineering)	1	Certificate and a Gold Medal
28	Professor S. Srinivasan Gold Medal	Mrs. Visalakshi Srinivasan, Wife of Late Professor S. Srinivasan	1996	• B Tech (Petroleum Engineering)	1	Certificate and a Gold Plated Silver Medal
29	Mata Gurudev Kaur Memorial Award	Late Prof. G S Marwaha, Ex-Director, IIT (ISM), Dhanbad	1995	• Girl Student of B Tech & M Sc Tech. Programmes	1	A plaque and Rs.500/- cash prize
30	Prof. N L Sharma Gold Medal	Dr B L Sharma, son of Late Prof. N L Sharma, Retd. Professor & Head of the Department of Applied Geology, IIT (ISM), Dhanbad	2003	• M.Sc.Tech. (Applied Geology)	1	Certificate and a Gold Medal
31	Kaushalya Devi Gold Medal	Shri S N Mahato, Retd. Faculty Member the Dept. of Mechanical Engg. & Mining Machinery Engg.	2004	• B.Tech. (Mechanical Engg.)	1	Certificate and a Gold Medal

Sl. No.	Name of the Award/Scholarship	Sponsoring Agency	Year of Institution of Award	Discipline	No. of Award	Type of award
32	Late Jagdish Mitter Dhawan Memorial Gold Medal	Mr Navneet Dhawan, son of Late Jagdish Mitter Dhawan, an alumnus, Mining Engineering, 1944 Batch	2009	<ul style="list-style-type: none"> B.Tech. (Mining Engineering) 	1	Certificate and a Gold Medal
33	L J Johnson Gold Medal	ONGC	2007	<ul style="list-style-type: none"> M.Tech. (Petroleum Engineering) 	1	Certificate and a Gold Medal
34	Smt. Nirja Sahay Memorial Gold Medal	Nirja Sahay Memorial Charitable Trust	2001	<ul style="list-style-type: none"> B.Tech. Graduate of the Institute 	1	Certificate and a Gold Medal
35	Smt. Snehlata Srivastava Memorial Gold Medal	Prof. S B Srivastava, formerly Professor & Head, Department of Mining Engg., IIT (ISM), Dhanbad	2010	<ul style="list-style-type: none"> Student of B.Tech./5-year Dual Degree/5-year Integrated Programmes 	1	Certificate and a Gold Medal
36	Smt. Renuka Rajhans Memorial Gold Medal	Prof. B K Rajhans formerly Professor, Department of Applied Mathematics, IIT (ISM), Dhanbad	2013	<ul style="list-style-type: none"> Girl Student of 5-year Integrated Programmes 	1	Certificate and a Gold Medal
37	Late Mrs. Poonam (Khanna) Singh Memorial Cash Award	Shri Sameer Kumar Singh, Husband of Late Poonam (Khanna) Singh, an alumnus, B.Tech Mineral Engineering, 1991 Batch	2014	<ul style="list-style-type: none"> 4 year B.Tech. student and 4 year B.Tech (Mineral Engineering) 	2	Certificate and a cash award of Rs. 50,000/-
38	Late Mitali Sen Memorial Award	Shri Anand Mohan Sen Pandey, father of Late Mitali Sen, Assistant Professor, Department of Management Studies, IIT (ISM), Dhanbad	2014	<ul style="list-style-type: none"> Student of 2 years MBA Programme 	1	Certificate, Plaque and a Cash prize
39	Late Mrs. Chitra Bhattacharya Memorial Award	Professor Bimalendu B. Bhattacharya, formerly Professor, Department of Applied Geophysics, IIT (ISM), Dhanbad	2014	<ul style="list-style-type: none"> Integrated M. Tech (Applied Geophysics) or M.Sc. Tech (Applied Geophysics) 	1	Certificate and a Gold Medal

9.2 Awards and Recognition to Faculty Members

During the year 2016-17, honours, awards and recognition were conferred to faculty members as listed below:

Department of Applied Chemistry

- Dr. Sagar Pal received CANARA BANK BEST RESEARCHER AWARD for Publication-2016 under the category Applied Chemistry, given by IIT (ISM), Dhanbad.
- Dr. Sagar Pal received CERTIFICATE OF RECOGNITION Given by ACS Publications – 2016.

Department of Applied Geology

- Prof. B C Sarkar is nominated as the Member, Geoscience Advisory Council, Ministry of Mines, Govt. of India.
- Dr. M. K. Mukherjee was invited by the Geological Survey of India, Jaipur to provide training to officers of the GSI at Zawar, Rajasthan from 4th -7th October 2017.
- Professor S. Mohanty coordinated a field investigation programme for “Manganese exploration in the Nagardhan area, Nagpur district, Maharashtra”. The investigation led to discovery of the largest manganese-ore deposit of Central India extending for a distance of 3.5 km. The discovery has an estimated value of Rs.36000 crores.
- Prof. B. C. Sarkar is conferred as Vice-President of Indian Geological Congress, Roorkee.
- Prof. B C Sarkar is nominated as the Member, Geoscience Advisory Council, Ministry of Mines, Govt. of India.
- Prof B C Sarkar is conferred as Member, Working Group to prepare a Road Map suggesting an alternative reporting system for Coal, MGMI, Kolkata.

Department of Applied Geophysics

- Dr P N Singha Roy, Associate Professor, Deptt. of Applied Geophysics was awarded Regular Associate of ICTP Trieste Italy (UNESCO and IAEE supported world's top institute) from January 2017 -December 2022.

Department of Applied Mathematics

- Prof. G. S. Seth is a Member of Editorial Advisory board of peer reviewed “International Journal of Heat and Technology”, and “Mathematical Modelling of Engineering”.
- Prof. G. S. Seth is Associate Editor of peer reviewed international journal “Journal of Applied Fluid Mechanics”.
- Prof. G. S. Seth is an Editorial board member of peer reviewed international journal “EUREKA: Physical Sciences and Engineering”
- Prof. G. S. Seth is an Editorial board member of peer reviewed international journal “Applied Mathematics”.
- Prof. G. S. Seth is an Editorial board member of peer reviewed international journal “International Journal of Applied Mathematical Research”.

- Prof. G. S. Seth is an Editorial board member of peer reviewed international journal “OPJIT International Journal of Innovation and Research”.
- Prof. G. S. Seth is a Member of Board of Advisors of Peer Reviewed National Journal, “Bulletin of the Gauhati University of Mathematics Association”.
- Prof. G. S. Seth acted as Chief Guest in Valedictory function on April 22, 2016 of Mathematical Association, Department of Mathematics, NIT Warangal, Telangana.
- Prof. G. S. Seth acted as Chairman Organizing Committee of 3rd International Conference on Applications of Fluid Dynamics (ICAFD-2016).
- Prof. R K Upadhyay is on the Editorial board of "Journal of Nonlinear Systems and Applications”.
- Prof. R K Upadhyay is on the Editorial board member of a peer reviewed international journal from Hong Kong "Computational Ecology and Software”.
- Prof. R K Upadhyay is the Reviewer of Journal of Biological Dynamics, Mathematics and computer in Simulations, Applied Mathematical Modeling, Mathematical Biosciences. Nonlinear Dynamics.
- Dr. M. K. Singh is a Member American Society of Civil Engineers (ASCE)-EWRI, USA
- Dr. M. K. Singh is a Reviewer of Acta Geophysica (Springer), Water Science and Technology (Wiley) and Journal of Hydrologic Engineering (ASCE).
- Dr. M. K. Singh worked as Deputy Editor in Chief, Journal of Groundwater Research, published by AGGS.
- Prof. G N Singh is reviewer of Hacettepe Journal of Mathematics and Statistics, Pakistan Journal of Statistics, Model Assisted Statistics and Application, Communications in Statistics-Theory & Methods, Journal of Statistical Theory and Practice, Journal of Applied Statistics, Journal of Indian Society of Agricultural Statistics, Journal of Indian Society for Probability and Statistics.
- Prof Bani Mukherjee delivered a special lecture on 3rd March, 2017 at Department of Mathematics. Ravenshaw University, Cuttack, Odisha.
- Prof Bani Mukherjee acted as Inaugurator of the UGC sponsored, National Seminar on “Advanced level of Mathematical Science” organized by the Post Graduate Department of Mathematics, Raja N L. Khan Women’s College, Midnapur, West-Bengal, India on 9th February,2017.
- Prof Bani Mukherjee delivered the key-note address of the UGC sponsored, National Seminar on “Advanced level of Mathematical Science” organized by the Post Graduate Department of Mathematics, Raja N L. Khan Women’s College, Midnapur, west-Bengal, on 9th February,2017.
- Prof Bani Mukherjee delivered an invited lecture “Roles of optimization in inventory theory” at the 49th ORSI International Conference, 12-14 December, 2016 and also being honored to chair one of the sessions for the conference, held at BIMTECH, Greater-Noida, Noida, UP.

- Prof Bani Mukherjee delivered special lecture on 26th Oct 2016 at Department of Mathematics, KIIT University, Bhubaneswar, Odisha.
- Prof. R. K. Upadhyay was nominated as a society member of International Society of computational Ecology, became Life member of Indian Mathematical Society, Member of American Mathematical Society.
- Prof. S Chatterjee reviewed papers for International Journal of Systems Science, Mathematical & Computer Modelling of Dynamical Systems, Information and Software Technology, Software Testing, Verification and Reliability, Quality and Reliability Engineering, International Journal, Journal of Systems and Software, International Journal of Systems Assurance Engineering and Management, and Soft Computing.

Department of Applied Physics

- Dr. P. M. Sarun is fabricating the prototype of MgB₂ based conduction cooled current leads for cryogenic applications.
- Dr. Pankaj Mishra organized National Conference on Liquid Crystals during 07 – 09 December, 2016.
- Dr. Pankaj Mishra delivered invited lectures at 6th International Conference on Functional Electroceramics and Polymers (ICEP-2017) organized by Department of Physics, IIT Kharagpur.
- Dr. Prashant K. Sharma's research group has developed an electrochemical sensor for sensing of cyanometallic compound.
- Dr. R. B. Choudhary delivered invited lectures at Nano Filler Reinforced Polymeric Binary/Ternary Nanocomposites, ACSSI-16 IIT Patna.
- Dr. R. B. Choudhary delivered invited lectures at Nonlinearity in Carbon and Polymer Based Composite Materials, STC-TEQIP NIT Durgapur.
- Dr. R. Thangavel and his group has fabricated prototype CZTS solar cell efficiency reached at 3.63 %.

Department of Computer Science and Engineering

- Prof. G. P. Biswas has received the Canara Bank Research Award for the year 2016-17
- Prof. P. K. Jana acted as Advisory Comm. Member in the International Conference ICIAC 2016, 18-19 March 2016 at GITAM University Hyderabad; and International Conference ICCMTC 2016, at S P Memorial Institute of Technology Allahabad (U.P.), India.
- Prof. P. K. Jana acted as Program Committee member in the 3rd International Symposium NextGenCIT 2017, March 22-23, 2017 at Cambridge University, UK. and The 8th International Conference GRAPH-HOC 2016, December 23- 24, 2016, Sydney, Australia.

Department of Electrical Engineering

- Prof. S. Pan reviewed a paper in 2016 IEEE Uttar Pradesh Section Conference on Electrical, Computer and Electronics (UPCON), 9-11 December, 2016, IIT (BHU), Varanasi.

Department of Environmental Science & Engineering

- Dr. Anshumali has been nominated as non-official member of Regional Empowerment Committee (REC), East Central Zone (Ranchi), MOEFCC, New Delhi from 2nd January 2017 to 1st January 2019 for the second term.
- Prof. S. K. Maiti received Canara bank Research Publication Award – 2016 [Env Sc & Engg].
- Prof. S. K. Maiti received Inder Mohan Thapar Foundation (IMTF) Research Award for Publication – 2016 [Env Sc & Engg].
- Prof. S. K. Maiti reviewed more than 25 high quality technical papers (SCI listed journals) in the field of Env Sc & Engineering.
- Prof. S. K. Maiti worked as FAE on Ecology & Biodiversity (EB) & Soil Conservation (SC) for 12 projects of Coal India Limited.

Department of Fuel and Mineral Engineering

- Dr Ram Chandra Chaurasia received Prof. C. Chiranjeevi MESA Award – 2016 on 19th March 2017, which was conferred in Khanij 2017 held at IIT(ISM). Shri S K Basak, ED. SAIL, Colliery Division, Kolkata gave the award.
- Ms. Dejalin Sahu got selected for a collaborative Doctoral Programme for carrying out her joint Ph.D. with Curtin University, Australia on the topic “Studies on Performance Comparison of Dense Medium Cyclone and Vorsyl Separator by Different Methods for Coal Cleaning” under the joint guidance of Prof. Nikkam Suresh IIT(ISM) Dhanbad and Prof. Hari Vuthaluru (Curtin University, Australia).
- Ms. Dejalin Sahu, Research Scholar of FME Dept. received best poster presentation award on 3rd Feb 2017, for the paper titled “EPMA, FTIR, XRD Characterization of middling obtained from a Coking –Coal Washery” presented in an international conference on Mineral Processing Technology-2017 held at Mahabalipuram Chennai from 1-3, Feb 2017. The paper was co-author by Ritesh Mohan, G Udayabhanu and Nikkam Suresh.

Department of Humanities and Social Sciences

- Dr. A K Behura delivered a special lecture on the topic ‘Ethics and Responsibility in Scientific Research’ in the Department of Philosophy, Presidency University, Kolkata on 28th March 2017.
- Dr. Rajni Singh delivered an invited talk on “Ink, Quill & The Short Story... Is It Back Again?” at Department of English, Lalit Narayan Mithila University, Darbhanga, 30th January 2017.

- Dr. Rajni Singh delivered plenary talk on “G.B. Shaw’s Androgynous Women: A Reading from Indian Perspective” at National Conference on “Feminine Genius” at D.V.K. Centre, Bangalore, 30th July 2016.
- Dr. Rajni Singh delivered plenary talk on “Intra-poetic Relationship: T.S. Eliot’s Dialogue with Tradition” at National Seminar on “South Asian Cultural Heteroglossia at St. Aloysius College, Elthuruth, Kerala, 9-10 March 2017.
- Dr. Rajni Singh delivered plenary talk on “Reading the Mytho-poetic Tradition of Mughal Culture” at the International conference on “Development of Art, Literature, Culture and Science under Mughals in India” at Bhasha Bhavan, Visva-Bharati, Shantiniketan, 30-31 March 2017.
- Dr. Rajni Singh received Canara Bank Research Publication Award-2015.

Department of Management Studies

- Prof. G. S. Pathak presented an Invited Paper titled ‘Exploring Happiness at the Workplace: A Qualitative Study’ in the Symposium on ‘Positive Psychology: Thriving on Happiness, Resilience, Willpower, Compassion, and Mindfulness’ in the XXVI Annual Convention of National Academy of Psychology (NAOP) held at Indian Institute of Technology, Madras during December 29-31, 2016
- Prof. Pramod Pathak and Govind Swaroop Pathak were invited to be a Panel Member in the ‘Panel to Evaluate posters for the Best Poster Award’ in the XXVI Annual Convention of National Academy of Psychology (NAOP) held at Indian Institute of Technology, Madras during December 29-31, 2016
- Prof. Pramod Pathak and Govind Swaroop Pathak chaired a ‘Technical Session’ in the 31st International Congress of Psychology, organized at Yokohama, Japan, during July, 24th to 29th, 2016
- Prof. Pramod Pathak and Govind Swaroop Pathak were invited to act as a External Reviewer for Ph.D. Thesis and External Examiner for conducting F.P.M. (equivalent to Ph.D). viva voce by Xaviers Labour Relations Institute (X.L.R.I.) Jamshedpur.
- Prof. Pramod Pathak and Govind Swaroop Pathak were invited to act as a External Reviewer for Ph.D. Thesis and External Examiner for conducting Ph.D. viva voce by Department of Management Studies, Indian Institute of Technology Madras, Chennai.
- Prof. Pramod Pathak and Govind Swaroop Pathak were invited to review an article for ‘International Journal of Work Organization and Emotion’ (Inderscience journal Abstracted in Scopus, ABDC List - B Category)
- Prof. Pramod Pathak and Govind Swaroop Pathak were invited to review an article for ‘International Journal of Strategic Change Management’ (Inderscience journal, ABDC List – C Category)
- Prof. Pramod Pathak and Govind Swaroop Pathak were invited to review an article for ‘Journal of Cleaner Production’.

- Prof. Pramod Pathak and Govind Swaroop Pathak were invited to review an article for 'International Journal of Business Excellence'.
- Prof. Pramod Pathak and Govind Swaroop Pathak were invited to review an article for 'British Food Journal'.
- Prof. Pramod Pathak and Govind Swaroop Pathak were invited to set a Paper and Evaluate 'Organizational Development and Management Change' for Post by GLA University, Mathura, Uttar Pradesh
- Prof. Pramod Pathak was invited by the government of Fiji to deliver a special talk on Managerial Implications of Ramayan in the World Conference on Ramayana in Suva, Fiji during 17-19 Oct, 2017

Department of Mechanical Engineering

- Dr. Surajit Paul delivered a special talk on "Experimentation and modeling of plasticity and damage "

Department of Mining Engineering

- For the tenth consecutive year, Prof. D.C. Panigrahi has been elected by the Committee of Mining, the Polish Academy of Sciences as a member of the International Advisory Board for the publication of International Journal on Archives of Mining Science and for his significant contribution in the field of Mine Ventilation Engineering.
- Prof. D.C. Panigrahi was conferred on honorary membership (one of the eleven members) of International Mine Ventilation Committee representing eleven leading mineral producing countries of the world in 1997, viz. USA, UK, Canada, Germany, France, Japan, Australia, South Africa, Poland, China, and India.
- Prof. D.C. Panigrahi continued as a member of the prestigious Statutory Committee of Government of India constituted under Section 12 of Mines Act, 1952.
- Prof. D.C. Panigrahi worked and contributed as a member of Governing Body and General Body of National Institute of Rock Mechanics, Kolar Gold Fields, Karnataka.
- Prof. D.C. Panigrahi continued as an expert member of Bureau of Indian Standards, Government of India for reviewing the standards related to Mines Safety in the country.
- Prof. D.C. Panigrahi is nominated as an Independent Director in the Board of Director's of Coal India Limited.
- Prof. D.C. Panigrahi was nominated as a member of PERC (Project Evaluation Review Committee) and SSAG (Standing Scientific Advisory Group) of Ministry of Mines, Government of India.
- Prof. D.C. Panigrahi was nominated as an Honorary Member of State Audit Advisory Board of Jharkhand.
- Prof. D.C. Panigrahi received Dr Rajendra Prasad Memorial Prize for the year 2016 of the Institution of Engineers (India) for research publication.

- Prof. Phalguni Sen was nominated as an Expert Member, High Power Committee, CIL, in respect of Accident that occurred at Rajmahal OCP of ECL on 29th December 2016.
- Prof. V.M.S.R Murthy delivered a key note lecture in Indorock-2016, IIT, Mumbai.
- Prof. V.M.S.R Murthy chaired a session in Indorock-2016, IIT, Mumbai.
- Prof. V.M.S.R Murthy was appointed as a member of Board of Mining Examination (Metal), DGMS.
- Prof. V.M.S.R Murthy was appointed as Pre-review committee member of NIRM, MoM.
- Prof. V.M.S.R Murthy coordinated the establishment of CEMT.
- Prof. V.M.S.R Murthy is a Member of National Committee of ISRM (India).
- Prof. R. M. Bhattacharjee was nominated as a member of Board of Mining Examinations (Metal), Government of India.
- Prof. R.M. Bhattacharjee was nominated as a member of Sectoral Mentor Council (SMC) on Mining and Mineral Sector under Union Ministry of Labour and Employment.
- Prof. R.M. Bhattacharjee is Co-Coordinator of Centre of Excellence for Safety, Health and Disaster Management.
- Prof. R.M. Bhattacharjee is Faculty In-charge / Coordinator of Centre of Excellence in Mining Technology.
- Prof. R.M. Bhattacharjee is Coordinator of the Programme on Clean Coal Technology.
- Prof. R.M. Bhattacharjee is Co-coordinator of the Centre of Australia-India Clean Coal and Energy Technology.
- Dr. Dheeraj Kumar coordinated the 18th IIRS Outreach Programme on “Basics of Remote Sensing, Geographical Information System & Global Navigation Satellite System” during August 22 - November 18, 2016 at IIT (ISM) Dhanbad.
- Dr. Dheeraj Kumar has been nominated as a member of GIS Academia Council of India for the session 2016-18.
- Dr. Dheeraj Kumar has been nominated as a member of National Geodetic and Geospatial Consortium (NGGC), DST, Government of India.
- Dr. Dheeraj Kumar has been nominated as Local Coordinator of RESPOND programme of SAC, ISRO, Jharkhand Cluster.
- Dr. P. S. Paul was empaneled as a Subject Expert by JPSC for the Interview-Board for the recruitment of District Mining Officers for the Government of Jharkhand.
- Dr. D. P. Mishra received the Hindustan Zinc Limited Prize of the Institution of Engineers (India) at the 31st Indian Engineering Congress held at Kolkata on 16th December 2016.
- Dr. D. P. Mishra nominated as a member of the Subject Expert Group/ BOS for framing the syllabus of B. Tech (Mining Engineering) for Biju Patnaik University of Technology (BPUT), Odisha.

- Dr. D. P. Mishra was empanelled as a Subject Expert by JPSC for the Interview-Board for the recruitment of District Mining Officers for the Government of Jharkhand.
- Dr. D. P. Mishra received Canara Bank Research Publication Award-2015 for Department of Mining Engineering on the occasion of 90th Foundation Day of Indian School of Mines, Dhanbad.
- Dr. D. P. Mishra was nominated as a Member of the Programme Committee, 4th Annual International Conference on Geological and Earth Sciences (GEOS - 2015) held in Singapore during 5-6 October 2015.
- Dr. D. P. Mishra reviewed papers for the journal Particulate Science and Technology, Applied Radiation and Isotopes, and Environmental Science and Pollution Research, Environmental Radioactivity, Geotechnical and Geological Engineering, Geological Sciences (JGS) and Oil, Gas and Coal Technology.
- Dr. A.K.Verma received Endeavour Executive Fellowship-2016 award by the Australian Government.
- Dr. A.K.Verma delivered a keynote lecture on “Thermo-Mechanical modeling in Rock Engineering” during Indorock 2016 at IIT Bombay.
- Dr. A.K.Verma reviewed papers of Indian Geotechnical Journal, Journal of the Geological Society of India, Geotechnical and Geological Engineering, Engineering with Computers, International Journal of Geomechanics, and Environmental Earth Sciences.
- Dr Patitapaban Sahu has been nominated as a member in Mining Engineers Association of India.
- Dr Patitapaban Sahu was nominated as a reviewer in Department of Science & Technology (DST-SERB), Govt. of India.
- Dr Patitapaban Sahu was nominated as a reviewer in the Journal of Environmental Radioactivity.

Department of Petroleum Engineering

- Prof T Kumar attended the BOS meeting of Dibrugarh University on 18th May 2016.
- Prof T Kumar attended the selection committee of faculty recruitment at NIT Sikkim as an external expert member on 26th June 2016.
- Prof T Kumar delivered the Key note address on Skill Development theme on Engineers Day function of Institute of Engineers local Center Dhanbad on 15th September 2016
- Prof T Kumar acted as a resource person in Vigilance Awareness Workshop of BCCL Dhanbad On 3rd November 2016.
- Prof T Kumar attended the meeting of the 1st court of the Tripura Central University Agartala on 21st November 2016.
- Dr. Ajay Mandal received Canara Bank Best Research Award in ISM, 2016.
- Prof T Kumar was external examiner for Ph.D. thesis of Dibrugarh University.

- Prof. A.K. Pathak attended 15th meeting of Diamond Core and Water Well Drilling Sectional Committee, ME21” organised by BIS, Government of India, New Delhi.

9.3 Awards and Recognition to Students

- The IIT (ISM) Student Chapter of Society for Mining, Metallurgy & Exploration (SME) was awarded with the Outstanding Student Chapter Award for the session 2015-16 in the SME Annual Conference & Expo at Denver, Colorado, USA. The competition was among 60 international student chapters of SME. The first runner up was University of Kentucky, USA and the second runner up was Colorado School of Mines, USA.
- Mr. Shubham Priyadarshi, 5- Year Integrated M.Sc. Tech (Applied Geophysics) won the Best Student Paper 3rd Prize in 79th European Association of Geoscientists and Engineers (EAGE) Conference & Exhibition 2017-Student Programme.
- Ms. Amrita Singh, PhD Scholar was selected for the Best Oral Presentation Award (Second) under Young Researchers’ Programme Category for the paper entitled, “Modelling of discontinuous signal via wavelet transform supplemented with Bayesian neural networks: An example from KTB bore hole” at the 1st Triennial Congress of FIGA and 53rd Annual Convention of IGU on “Geosciences for Sustainability”
- Mr. Roshan K Singh, PhD Scholar worked at Observatorio Nacional- ON, Brazil for four months on the fellowship provided by Observatorio Nacional- ON, Brazil.
- Mr. Rajesh Kumar Sinha and Mr. Vaibhav Goyal won the first prize in CodeRush V3.0 organized by CSE Society, IIT (ISM), Dhanbad.
- Ashish Kumar won the first prize in the event GOOGOL V2.0, a nationwide coding competition.
- Mr. Krishnadya Deepak, Mr. Raju Kumar, Mr. Rishav Raj, Mr. Kuldeep Sharma and Mr. Vishwajeet won the first prize in ‘HackFest 2017’.
- Dr Abhiroop Choudhury received Inder Mohan Thapar Foundation (IMTF) Research Award for Publication – 2016.
- Ms. Dejalin Sahu got selected for a collaborative Doctoral Programme for carrying out her joint Ph.D. with Curtin University, Australia
- Dr Ram Chandra Chaurasia received Prof. C. Chiranjeevi MESA Award – 2016.
- Ms. Dejalin Sahu, Research Scholar of FME Department received the best poster presentation award for the paper entitled, “EPMA, FTIR, XRD Characterization of middling obtained from a Coking –Coal Washery” at an international conference on Mineral Processing Technology-2017.
- Md. Tariq Noor received best presentation award in the 8th International Conference on Smart Materials, Structures and Systems held at IISc Bangalore in July 2017 for the research paper entitled, “FEM based delamination analysis of bonded FRP composite pipe joint”.

- Seven students of the Department of Mining Engineering, IIT (ISM) were selected for the highly competitive SME, USA Scholarships worth \$3000. The list of students along with the scholarships award is given below:

<i>Names of Student</i>	<i>Scholarship's Name</i>
<i>Saurabh Chaturvedi</i>	<i>Coal & Energy Division Scholarship</i>
<i>Pritam Kumar Sinha</i>	<i>John Sidney Marshall Scholarship</i>
<i>Shubham Choudhary</i>	<i>John Sidney Marshall Scholarship</i>
<i>Abhijeet Kumar</i>	<i>John Sidney Marshall Scholarship</i>
<i>Rajeev Ranjan Gupta</i>	<i>John Sidney Marshall Scholarship</i>
<i>Piyush Pratik</i>	<i>John Sidney Marshall Scholarship</i>
<i>Kunal Bohra</i>	<i>John Sidney Marshall Scholarship</i>

10. INFRASTRUCTURAL FACILITIES

10.1 Central Library

The Central Library of the Institute provides academic and research support to one and all in terms of reference services, semester exam preparations, project writings, research and others.

Different sections of the library include:

- Circulation Desk cum Central Reading Area
- Reference cum SRB Section
- Newspaper - Magazine Section
- e-Resource/ Print Journal Section
- Book Acquisition Section
- Technical Processing Section
- Photocopy Section
- Open Reading Hall
- Research Documentation Cell (RDC)
- Institutional Digital Repository

The Central Library is fully automated in terms of records management, information retrieval and service delivery. Over the years, the library has developed several databases. It contains 137,725 books, 40,360 bound volumes of journals, 22 current journals, 10,967 theses and dissertations and around 50 periodic magazines to its coffer. During this academic period 5,852 books were added to the library holding. The library also possesses e-Books, on perpetual access basis from Springer, Taylor & Francis netBases, e-books and McGraw-Hill Express Library in the fields of Science, Technology, Chemistry & Materials Science, Computer Science, Earth & Environmental Sciences, Mathematics, Statistics, Physics, Astronomy, Engineering, Business and Management, and Liberal Arts.

All the records of the library are accessible online through Online Public Access Catalogue (OPAC) touch-screen kiosks connected to the library's Local Area Network (LAN) as well as WebOPAC link on the library's website. 'Browse', 'Search', 'Patron' and many more enquiry facilities in the OPAC module of Libsys Library Management Software have enabled the users to find records on their own. The library maintains its electronic databases of its printed sources such as books, SRB & reference books, journal loose issues cum bound volumes, theses, dissertations, conference proceedings, and articles. The library has its own official website that facilitates information search from the library's bibliographic and book transactions records of the library users of the Central Library through web based online public access catalogue (WebOPAC) on campus wide LAN. Recently the library's official website (<http://www.iitismlib.ac.in>) revamped and redesigned making it more organized, informative and user friendly.

Under e-Shodh Sindhu Consortium, the Central Library has got 14 e-resources: ACM Digital Library, American Physical Society All, ASCE, ASME, ASTM Standards, EPW, IEL Online, ISID Database, JGate Plus, JSTOR, Nature, Oxford University Press, ProQuest ABI/Inform Complete, and Web of Science. In addition, the library has got two more NDL sponsored e-resources—World eBook Library and South Asia Archive. The Central Library has subscribed to ScienceDirect, OnePetro, EBSCO Business Source Premier, Emerald Management e-journals, Scopus, ProQuest Dissertations & Theses Global, ACS Package, CSD Enterprise Researcher, Journal of Applied Physics, GSW & GeoRef, Springer e-books, and Turnitin anti plagiarism web tool to facilitate academic and research activities. The library procured RemoteXs, a service that would facilitate e-resource access off the IIT (ISM) campus. The links of all the e-resources have been provided through the library's website.

The Central Library is a nodal centre to cooperate with the National Digital Library (NDL) Project headquartered at IIT Kharagpur. The Central Library has its own Institutional Digital Repository (IDR) for preserving and sharing the digital contents of the Institute's Ph.D. theses, dissertations, and faculty publications, particularly the papers published in journals and conferences. The Research Documentation Cell (RDC) contributes to faculty promotion and recruitment by verifying the publications of the candidates concerned.

To meet the challenges of increasing number of students, research scholars and faculty members, a centrally air-conditioned G+7 state-of-the-art library building is under construction to provide all hardware/software and humanware facilities.

10.2 Computer Centre

The Computer Centre provides Information and Communication Technology and Computation related facilities. The Institute is in the process of building its State-of-the-Art Central Computing and Data Centre Infrastructure to meet its upcoming computing and networking requirements. The main goals are to:

- Build an ideal IT learning hub for all to start and enhance their IT skills at all levels aligning with “Skill India” and “Make in India” programme of Government of India.
- Develop an efficient cross platform environment for hosting and promoting different research and technological incubations for high performance computing and data analytics.
- Develop a scalable system for managing access control and auditing for “Write Once Access Anywhere” in the era of distributed computing.
- Create ‘Smart Class’ and ‘Video Conferencing’ facility at the Institute.
- Meet the needs of growing number of users and demand for high performance network connectivity with enhanced security, scalability and 24x7 availability.
- Carry out augmentation of new network backbone by deploying 144 core Optical Fiber with 40 Gbps speed at backbone, 40/10 Gbps at distribution and 10/1 Gbps at access layer to provide highest level of link redundancy/resiliency.

- Create campus wide Wi-Fi with proper user authentication and network admission control to secure Wi-Fi zone for all valid users of the Institute.

The services provided by the Centre include:

- Installation & Maintenance of Servers for:
 - ❖ Internet access.
 - ❖ E-mail facilities.
 - ❖ Samba sharing facility.
 - ❖ Appliance based authentication access.
 - ❖ Computation facilities.
 - ❖ VPN facilities for accessing Journals and E-contents from outside the Institute.
- Management and upkeep of the Institute website.
- Management of the Institute wide Wi-Fi enabled environment.
- Management of the Centralized Computer Lab accessible to all the students and researchers of the Institute.
- Maintaining 1Gbps Internet Leased Line seamlessly connected with 7000 nodes.
- Providing technical assistance to all Academic and Administrative Staff.
- Providing facilities to Students from various academic institutes from across India for their short-term courses, mini project work and summer training, etc.
- Providing video conferencing facility for conducting Ph.D. Viva Voce examination, lectures, seminars, etc.
- Providing and maintaining different machines having Windows, Linux and Mac Operating Systems of the Faculty & Staff members.
- Providing ITES facility for conducting various campus interview for placement of students.

The Centre is engaged in designing and facilitates the NKN Project with NIC in the Campus. National Knowledge Network (NKN) project is aimed at establishing strong and robust internal Indian network that will be capable of providing secure and reliable connectivity.

10.3 Central Workshop

The workshop of the Institute has a wide range of manufacturing facilities catering to the needs of undergraduate and postgraduate students as well as research scholars. It provides good facilities for Forging, Carpentry, Fitting and Sheet Metal working. It also provides excellent facilities for Welding, Casting and Machining, Induction melting furnace, Gear hobbing and Gear shaping machines, Surface Planer machine, Tool & Cutter grinding machine, Band Saw (Wood cutting machine), TIG, MIG, SAW welding machines, Template based gas cutting machine, CNC Profile cutting machine, and Power Press machine are important facilities. There are CNC programming laboratory and sophisticated Computer Aided Manufacturing (CAM) laboratory consisting of latest CAM Software, CNC turning (trainer), and CNC milling (trainer) machines. There is Flexible Manufacturing System

facility, CNC Lathe machine fitted with Automatic Guided Vehicle and Automatic Storage and Retrieval System (ASRS). There is Rapid prototyping machine (3-D Printer). There is also a Dimensional Metrology laboratory in which variety of linear, angular, surface flatness (Auto Collimator)/ surface roughness (Surface Roughness Tester) measuring instruments, gear tooth thickness (Gear Tooth Vernier Calipers) /circular pitch (Flange Micrometer) measuring instruments, variable Microscope and Metallurgical microscope are important measuring instruments. There is Die Sinking EDM for nontraditional machining. There is a high precision 400 Watt Fibre Laser welding machine in Laser machining laboratory. HMT high precision Sliding Surface & Screw Cutting lathe with Piezoelectric 3 Dimensional Force Sensor, Polishing Machine and Hot Mounting Press as well as Compact RIO Controller hardware are in full operation. Abrasive Cut-off machine is under installation and commissioning. All these laboratories/facilities are housed in the new workshop building. There are Wire-EDM and Electrochemical Machine (ECM) for nontraditional/advanced machining in Nontraditional machining laboratory.

Many students fabricate various equipments for example vehicles, robots, air tunnels, etc. for national level competitions. Sometimes short-term training courses related to manufacturing process/ workshop technology for engineers/ officers/ executives are also conducted on demand. Consultancy is also provided by the faculty to industries according to their needs. Various types of furniture, fixtures and components (of machines and equipment) of different departments of the Institute are also repaired and manufactured in the workshop on demand.

10.4 Health Centre

The Institute Health Centre provides medical care to the students, teachers, officers and staff including their dependant family members. From 2000 onwards, retired employees with their spouses have also been included for medical treatment. Routine OPD and emergency services are supported by two permanent doctors, and one part time doctor. In addition to this, various specialists regularly visit the Health Centre - two Homoeopath, one Dental Surgeon, an Eye Specialist, a Gynaecologist, an Orthopaedic Surgeon, an ENT Specialist, a Cardiologist, a Psychiatrist, a Surgeon, a Paediatrician, two Pathologists, and a Physiotherapist.

10.5 Hindi Cell

Hindi Cell plays significant role in the implementation of Official Language Policy of the Union Government of India. Hindi Cell of the Institute deals with:

- Implementation of Official Language Policy and compliance of provisions of Official Language, Act 1963 and Rule 1976.
- Organisation of quarterly meeting of Official language committee to discuss various aspects of implementation to meet targets as prescribed in annual programme.
- Conducting “Hindi Pakhwada” in the month of September every year involving faculty members, officers, students and staff of the Institute in various Hindi competitions.

- Hindi workshop for the staff who have working knowledge of Hindi to inculcate interests among the staff and help them remove their hesitation to work in Hindi.
- Publication of Institute's Hindi Magazine "ANKUR" in collaboration with "Chayanika Sangh".
- Submission of online quarterly report to Rajbhasha Vibhag.
- Participation in TOLIC meeting.
- Translation of Annual Report and all other circulars, orders and official correspondences in Hindi.

11. PERSONNEL

Academic Administration

Prof. D. C. Panigrahi, Director
 Prof S Mohanty, Dean (Academic)
 Prof Vishnu Priye, Dean (Research & Development)
 Prof Chandan Bhar, Dean (Students Welfare) – up to 24.6.2016
 Prof Jairam Manam, Dean (Students Welfare) – from 25.6.2016
 Prof S K Paul, Dean (Faculty & Planning) – from 23.5.2016 to 25.8.2016
 Prof S K Paul, Dean (Faculty) – from 26.8.2016
 Prof J K Pattanayak, Dean (Infrastructure) – from 26.8.2016
 Prof V M S R Murthy, Dean (International Relations & Alumni Affairs) from 26.8.2016 to 31.12.2016

Associate Deans

Prof V M S R Murthy, Associate Dean (International Relations & Alumni Affairs) up to 25.8.2016
 Prof G Udayabhanu, Associate Dean (Academic & Research)
 Prof J K Pattanayak, Associate Dean (P&ID)- up to 25.8.2016
 Prof A K Varma, Associate Dean (Students Welfare) – from 3.7.2016
 Prof G N Singh, Associate Dean (Hostel Management) – from 3.7.2016
 Prof N R Mandre, Associate Dean (Infrastructure-I) – from 3.10.2016
 Prof A K Mishra, Associate Dean (International Relations & Alumni Affairs) from 24.11.2016

Academic

List of Faculty Members from (01.04.2016 to 31.03.2017)

Sl.No.	Name	Designation	Department
1	Prof. D C Panigrahi	Professor (HAG)	ME
2	Prof. Gurdeep Singh (on deputation)	Professor (HAG)	ESE
3	Prof. R Venugopal	Professor (HAG)	FME
4	Prof. U K Singh	Professor (HAG)	ME
5	Prof. T Kumar	Professor (HAG)	PE
6	Prof. Sukumar Laik	Professor (HAG)	PE
7	Prof. M Jawed	Professor	ME
8	Prof. Phalguni Sen	Professor	ME
9	Prof. P K Sarkar	Professor	MECH
10	Prof. S K Paul	Professor	ECE
11	Prof. G S Seth	Professor	AM
12	Prof. S Mohanty	Professor	AGL
13	Prof. B C Sarkar	Professor	AGL

Sl.No.	Name	Designation	Department
14	Prof. A Sarkar	Professor	ACH
15	Prof. A K Pathak	Professor	PE
16	Prof. P Pathak	Professor	M S
17	Prof. Chandan Bhar	Professor	M S
18	Prof. T K Chatterjee	Professor	MME
19	Prof. J Manam	Professor	APH
20	Prof. N Suresh	Professor	FME
21	Prof. K Dasgupta	Professor	MME
22	Prof. A K Mukhopadhyay	Professor	MME
23	Prof. V M S R Murthy	Professor	ME
24	Prof. Sumantra Bhattacharya	Professor	FME
25	Prof. J K Pattanayak	Professor	M S
26	Prof. P R Mohanty	Professor	AGP
27	Prof. A K Varma	Professor	AGL
28	Prof. D Asthana	Professor	AGL
29	Prof. V Priye	Professor	ECE
30	Prof. V K Saxena	Professor	CHEM
31	Prof. N R Mandre	Professor	FME
32	Prof. G P Biswas	Professor	CSE
33	Prof. Subrata Bhattacharya	Professor	ECE
34	Prof. G Udayabhanu	Professor	ACH
35	Prof. A K Pal	Professor	ESE
36	Prof. S Gupta	Professor	AM
37	Prof. G N Singh	Professor	AM
38	Prof. Somnath Pan	Professor	EE
39	Prof. D D Pathak	Professor	ACH
40	Prof. A S Venkatesh	Professor	AGL
41	Prof. P K Jana	Professor	CSE
42	Prof. Shalivahan	Professor	AGP
43	Prof. (Ms) D Mitra	Professor	ECE
44	Prof. P K Sadhu	Professor	E E
45	Prof. R K Das	Professor	MECH
46	Prof. (Ms) B Mukherjee	Professor	AM
47	Prof. S K Maiti	Professor	ESE
48	Prof. G S Pathak	Professor	MS
49	Prof. R K Upadhyay	Professor	AM
50	Prof. A K Nirala	Professor	APH
51	Prof. Vineet Kumar	Professor	CHEM
52	Prof. Sekhar Chandra Dutta	Professor	CIVIL
53	Prof. (Ms.) Rima Chatterjee	Professor	AGP
54	Prof. A K Mishra	Professor	ME
55	Prof. S K Gupta	Professor	ESE
56	Prof. P K Khan	Professor	AGP

Sl.No.	Name	Designation	Department
57	Prof. Satish Kumar Sinha	Professor	PCE
58	Prof. Biswajit Choudhary	Professor	ACH
59	Prof. Ashutosh Kumar	Professor	PE
60	Prof. Sheo Shankar Rai (Contract)	Professor	ME
Professor (On contract after their superannuation)			
1	Prof. A Chattopadhyay	Professor	AM
2	Prof. V P Sharma	Professor	PE
3	Prof. I M Misra	Professor	CHEM
4	Prof. V Kumar	Professor	ECE
5	Prof. P S Gupta	Professor	APH
Chair Professor			
1	Prof. S Choudhary (CIL, Chair)	Professor	ME
2	Prof. R M Bhattacharya (MoL & E Chair)	Professor	ME
3	Prof. A K Singh (Rajiv Gandhi Chair)	Professor	ESE
4	Prof. Om Prakash (NMDC, Chair)	Professor	ME

List of Associate Professor during the period 01.04.2016 to 31.03.2017

Sl. No.	Name	Designation	Department
1	Shri P K Behera	Associate Professor	ME
2	Dr. Kailash Jha	Associate Professor	MECH
3	Dr. Biswajit Paul	Associate Professor	ESE
4	Dr. S Chattopadhyay	Associate Professor	MECH
5	Dr. S N Singh	Associate Professor	MECH
6	Dr. Chiranjeiv Kumar	Associate Professor	CSE
7	Dr. Vinayak Ranjan	Associate Professor	MECH
8	Dr. (Mrs.) Saumya Singh	Associate Professor	M S
9	Dr. M K Singh	Associate Professor	AM
10	Dr. S Chatterjee	Associate Professor	AM
11	Dr. Vikas Mahto	Associate Professor	P E
12	Dr.(Mrs.) Keka Ojha	Associate Professor	P E
13	Dr. K Chatterjee	Associate Professor	EE
14	Dr. Ajay Mandal	Associate Professor	P E
15	Dr. P K Singh	Associate Professor	ESE

Sl. No.	Name	Designation	Department
16	Dr. Dheeraj Kumar	Associate Professor	M E
17	Dr. A K Behura	Associate Professor	HSS
18	Dr. Md. Mojibur Rahman	Associate Professor	HSS
19	Dr. R K Dubey	Associate Professor	AGL
20	Dr. S K Sharma	Associate Professor	APH
21	Dr.(Mrs.) Rajni Singh	Associate Professor	HSS
22	Dr. M K Jain	Associate Professor	ESE
23	Dr. P N Singha Roy	Associate Professor	AGP
24	Dr. Mahendra Yadav	Associate Professor	ACH
25	Dr. S Mukhopadyay	Associate Professor	CSE
26	Dr. B Bhattacharya	Associate Professor	EE
27	Dr. M K Mukherjee	Associate Professor	AGL
28	Dr. Sandeep Mandal	Associate Professor	M S
29	Dr. Akhilesh Prasad	Associate Professor	AM
30	Dr. S P Tiwari	Associate Professor	AM
31	Dr. Sanjay Kumar Ghoshal	Associate Professor	MECH
32	Dr. Rohit P John	Associate Professor	ACH
33	Dr. N K Singh	Associate Professor	MECH
34	Dr. Upendra Kumar Singh	Associate Professor	AGP
35	Dr. Nitai Pal	Associate Professor	EE
36	Dr. Sukanta Dey	Associate Professor	AGL
37	Dr. Vineet Kumar Rai	Associate Professor	APH
38	Dr. Asit Kumar Kar	Associate Professor	APH
39	Dr. Sanjoy Mandal	Associate Professor	EE
40	Dr. Jitendra Kumar	Associate Professor	ECE
41	Dr. Bobby K Antony	Associate Professor	APH
42	Dr. Syed Tajdardul Hassan	Associate Professor	AGL
43	Dr. Mukul Kumar Das	Associate Professor	ECE
44	Dr. Amit Rai Dixit	Associate Professor	MECH
45	Dr. Shushanta Sarangi	Associate Professor	AGL
46	Dr. Sagar Pal	Associate Professor	APH
47	Dr. Lakshmi Annamalai Kumaraswamidhas	Associate Professor	MME
48	Dr. Chandan Guria	Associate Professor	PE
49	Dr. Tanmoy Maity	Associate Professor	EE

Sl. No.	Name	Designation	Department
50	Dr. Haider Banka	Associate Professor	CSE
51	Dr. V K Singh	Associate Professor	APH
52	Dr. Arunkumar Samanta	Associate Professor	CHEM
53	Dr. Ashis Mallick	Associate Professor	MECH
54	Dr. Ram Madhab Bhattacharjee	Associate Professor	ME
55	Dr. Rabindra Nath Hota	Associate Professor	MECH
56	Dr. Anup Krishna Prasad	Associate Professor	AGL
57	Dr. B S Kushvah	Associate Professor	AM
58	Dr. Anshumali	Associate Professor	ESE
59	Dr. Ajoy Kumar Bhaumik	Associate Professor	AGL
60	Dr. Alok Sinha	Associate Professor	ESE
61	Dr. Sarat Kumar Panda	Associate Professor	CIVIL
62	Dr. Saravanan Pichiah	Associate Professor	ESE
63	Shri Rajeev Upadhyay (Contract)	Associate Professor	PE

List of Assistant Professor during 01.04.2016 to 31.03.2017

Sl. No.	Name	Designation	Department
1	Dr Abha Rani	Assistant Professor	AM
2	Dr Sachin Tripathi	Assistant Professor	CSE
3	Dr Hari Om	Assistant Professor	CSE
4	Dr (Mrs.) Mrinalini Pandey	Assistant Professor	MS
5	Dr Sushrut Das	Assistant Professor	ECE
6	Dr P S Paul	Assistant Professor	ME
7	Dr (Mrs.) Shalini Gautam	Assistant Professor	FME
8	Dr Niladri Das	Assistant Professor	MS
9	Dr Swapan Dey	Assistant Professor	ACH
10	Dr Subrata Kr Ghosh	Assistant Professor	MECH
11	Dr Devi Prasad Mishra	Assistant Professor	ME
12	Dr Pankaj Mishra	Assistant Professor	APH
13	Dr Santanu Dwari	Assistant Professor	ECE
14	Dr V Mukherjee	Assistant Professor	EE
15	Dr P S Rao	Assistant Professor	AM
16	Dr Subindu Kumar	Assistant Professor	ECE
17	Dr K K Singh	Assistant Professor	MECH
18	Dr Alok Kr Das	Assistant Professor	MECH
19	Dr Vipin Kumar	Assistant Professor	ESE

Sl. No.	Name	Designation	Department
20	Dr S K Raghuwanshi	Assistant Professor	ECE
21	Dr Tarun Kr Naiya	Assistant Professor	PE
22	Dr Sahendra Singh	Assistant Professor	AGL
23	Dr Somnath Yadav	Assistant Professor	ACH
24	Dr Bhanwar S Choudhary	Assistant Professor	ME
25	Dr Ram Bilash Choudhary	Assistant Professor	APH
26	Dr Gnananandh Budi	Assistant Professor	ME
27	Dr Abhay Kr Singh	Assistant Professor	AM
28	Dr Anurag Jayswal	Assistant Professor	AM
29	Dr Aju Aravind	Assistant Professor	HSS
30	Dr P K Mahato	Assistant Professor	MECH
31	Dr. A C Sekhara Rao	Assistant Professor	CSE
32	Dr. Amgoth Tarachand	Assistant Professor	CSE
33	Shri Vinay Kr Rajak	Assistant Professor	PE
34	Dr. Rajendra Pamula	Assistant Professor	CSE
35	Ms Archana	Assistant Professor	PE
36	Dr Sukanta Das	Assistant Professor	EE
37	Dr. Mrinal Sen	Assistant Professor	ECE
38	Dr. Rajeev Kr Ranjan	Assistant Professor	ECE
39	Dr. Shatrughan Soren	Assistant Professor	FME
40	Dr. Gauri Shankar	Assistant Professor	EE
41	Shri B K Naick	Assistant Professor	EE
42	Dr Santimoy Kundu	Assistant Professor	AM
43	Dr. Sikandar Azam	Assistant Professor	MECH
44	Dr Hari Pada Nayek	Assistant Professor	ACH
45	Shri Kashinath Pal	Assistant Professor	ME
46	Dr. Brijesh Kr Mishra	Assistant Professor	ESE
47	Dr Suresh Pandian E	Assistant Professor	ESE
48	Dr Kaushal Kumar	Assistant Professor	APH
49	Dr Hemant Kumar	Assistant Professor	ME
50	Dr. Niranjan Kumar	Assistant Professor	MME
51	Dr. Dharavath Ramesh	Assistant Professor	CSE
52	Shri Devendra Chack	Assistant Professor	ECE
53	Dr Shibayan Sarkar	Assistant Professor	MECH
54	Dr. Jaisingh Thangaraj	Assistant Professor	ECE
55	Shri Amitesh Kumar	Assistant Professor	ECE
56	Dr Arup Kr Pal	Assistant Professor	CSE
57	Dr. Amitava Mandal	Assistant Professor	MECH
58	Dr Sarun P M	Assistant Professor	APH
59	Md Tanweer Alam	Assistant Professor	MME

Sl. No.	Name	Designation	Department
60	Dr Ganesh Ch Nayak	Assistant Professor	ACH
61	Dr (Mrs.) Sushila Maheshkar	Assistant Professor	CSE
62	Dr S R Samadder	Assistant Professor	ESE
63	Dr Sumanta Kr Sahu	Assistant Professor	ACH
64	Shri K Priya Ajit	Assistant Professor	MME
65	Dr Pramod Kr Kewat	Assistant Professor	AM
66	Dr Sanjit Kr Pal	Assistant Professor	AGP
67	Shri D B Kishorilal	Assistant Professor	MME
68	Shri Pankaj Kr Jain	Assistant Professor	FME
69	Dr Pranab Das	Assistant Professor	AGL
70	Dr Kartick Ch Jana	Assistant Professor	EE
71	Dr Ravi Kr Gangwar	Assistant Professor	ECE
72	Dr Sanjeev Anand Sahu	Assistant Professor	AM
73	Dr G K Vishwakarma	Assistant Professor	AM
74	Shri M L Chandravanshi	Assistant Professor	MECH
75	Shri D V Bhaskar	Assistant Professor	EE
76	Shri Suresh Kr Yatirajula	Assistant Professor	CHEM
77	Dr Sridhar Sahu	Assistant Professor	APH
78	Dr R Thangavel	Assistant Professor	APH
79	Dr P K Sharma	Assistant Professor	APH
80	Dr Jayanta Das	Assistant Professor	MME
81	Dr K S Thyagaraj	Assistant Professor	MS
82	Shri Anand Anupam	Assistant Professor	FME
83	Shri Neetish Kr Maurya	Assistant Professor	PE
84	Dr. Shravan Kumar	Assistant Professor	FME
85	Dr Rashmi Madhuri	Assistant Professor	ACH
86	Shri Kaushik Mazumdar	Assistant Professor	ECE
87	Dr Rakesh Kumar	Assistant Professor	MECH
88	Dr (Mrs) Sarita Kar	Assistant Professor	HSS
89	Dr Amit Kr Verma	Assistant Professor	ME
90	Shri Lutukurthi D N V V Konda	Assistant Professor	CHEM
91	Shri Ajit Kumar	Assistant Professor	MME
92	Dr Nirban Manna	Assistant Professor	HSS
93	Shri Paidinaidu Paluri	Assistant Professor	CHEM
94	Dr. Villuri Vasanta Govind Kumar	Assistant Professor	ME
95	Dr Suman Dutta	Assistant Professor	CHEM
96	Dr D Krishna Sandilya	Assistant Professor	CHEM
97	Dr Saumen Maiti	Assistant Professor	AGP
98	Dr Bibhas Chandra	Assistant Professor	MS
99	Dr Upama Dutta	Assistant Professor	AGL

Sl. No.	Name	Designation	Department
100	Miss Sweta R Malwe	Assistant Professor	CSE
101	Shri Govind Murmu	Assistant Professor	ECE
102	Dr Srinivas Pasupuleti	Assistant Professor	CIVIL
103	Dr. Ananda Shankar Hati	Assistant Professor	MME
104	Dr Raghvendra Kr Chaudhary	Assistant Professor	ECE
105	Dr P Ranjan Sahoo	Assistant Professor	AGL
106	Miss Tanusree Kaibartta	Assistant Professor	CSE
107	Dr R Anand	Assistant Professor	AGL
108	Dr Kripamoy Sarkar	Assistant Professor	AGL
109	Shri Rahul Bhattacharya	Assistant Professor	ECE
110	Dr Chanchal Halder	Assistant Professor	ACH
111	Dr Nirupama Mandal	Assistant Professor	ECE
112	Dr Abhishek Kr Singh	Assistant Professor	AM
113	Dr Sumanta Kr Padhi	Assistant Professor	ACH
114	Dr Binata Panda	Assistant Professor	APH
115	Dr M Rakesh Singh	Assistant Professor	APH
116	Md Soyeb Alam	Assistant Professor	ME
117	Dr Jhasaketan Nayak	Assistant Professor	APH
118	Dr Barun Kr Nandi	Assistant Professor	FME
119	Dr. (Mrs) Sheeja Jagdevan	Assistant Professor	ESE
120	Dr. Rabindra Kumar Sinha	Assistant Professor	ME
121	Dr. Umakanta Tripathy	Assistant Professor	APH
122	Dr. Soumitra Maiti	Assistant Professor	ACH
123	Dr. Dinbandhu Pradhan	Assistant Professor	AM
124	Dr. Basanta Bhaduri	Assistant Professor	APH
125	Dr. Subhankar Sen	Assistant Professor	MECH
126	Dr. Subramanian Narayanan	Assistant Professor	MECH
127	Dr. Rashmi Ranjan Das	Assistant Professor	MME
128	Dr. Pawan Kumar Singh	Assistant Professor	MECH
129	Dr. Prasun Jana	Assistant Professor	MECH
130	Dr. Saurabh Datta Gupta	Assistant Professor	AGP
131	Dr. Rajib Sarkar	Assistant Professor	CIVIL
132	Dr. Vishwas Nandkishor Khatri	Assistant Professor	CIVIL
133	Dr. Lohitkumar Nainegali (Contract)	Assistant Professor	CIVIL
134	Dr. Sanket Nayak (Contract)	Assistant Professor	CIVIL
135	Dr Sowmiya Chawla (Contract)	Assistant Professor	CIVIL
136	Dr. Soubhik Kumar Bhaumik (Contract)	Assistant Professor	CHEM
137	Dr. Sidartha Sengupta (Contract)	Assistant Professor	CHEM
138	Dr. Arijit Barar (Contract)	Assistant Professor	EE
139	Dr. Paresh Kumar Nayak (Contract)	Assistant Professor	EE

Sl. No.	Name	Designation	Department
140	Dr. Md. Irfan (Contract)	Assistant Professor	MS
141	Dr. Krishnendu Shaw (Contract)	Assistant Professor	MS
142	Dr. Gyan Prakash (Contract)	Assistant Professor	HSS
143	Dr. Soumen Bag (Contract)	Assistant Professor	CSE
144	Dr. Ramanababu Kaligatla (Contract)	Assistant Professor	AM
145	Dr. Sachin Kumar Singh (Contract)	Assistant Professor	MECH
146	Dr. Tanish Dey (Contract)	Assistant Professor	CIVIL
147	Dr. Sukanta Chakraborty (Contract)	Assistant Professor	CIVIL
148	Dr. Patitapaban Sahu (Contract)	Assistant Professor	ME
149	Dr. Smruti Sourava Mohapatra (Contract)	Assistant Professor	CIVIL
150	Dr. Deepak Kumar Mandal (Contract)	Assistant Professor	MECH
151	Dr. Vivek Bajpai (Contract)	Assistant Professor	MECH
152	Dr. Devaraj Pandimuthu (Contract)	Assistant Professor	HSS
153	Dr. Srinivasa Rao Gangumalla (Contract)	Assistant Professor	AGP
154	Dr. Kironmala Chanda (Contract)	Assistant Professor	CIVIL
155	Dr. Radhakanta Koner (Contract)	Assistant Professor	ME
156	Dr. Mohit Agrawal (Contract)	Assistant Professor	AGP
157	Dr. Satadru Das Adhikari (Contract)	Assistant Professor	CIVIL

List of officers during the period 01.04.2016 to 31.03.2017

Sl. No.	Name	Designation
1	Col. (Retd.) M K Singh	Registrar
2	Dr. Partha De	Librarian
3	Dr. Kaushik Mondal	System Manager
4	Dr. Pramod Mathur	Joint.Registrar
5	Shri Prabodh Pandey	Dy.Registrar
6	Shri Pradhan Rajesh Kr. Sinha	Dy.Registrar
7	Shri Rajeev Kumar	Dy.Registrar
8	Shri S. Ghosh	Campus Engineer
9	Dr. Praveen Kumar	SMO
10	Dr.(Mrs) T.Banerjee	LMO
11	Shri R K Mishra	System Analyst
12	Shri Rakesh Soni	System Analyst
13	Shri H R Singh	Technical Officer
14	Shri U P Sharma	Technical Officer

Sl. No.	Name	Designation
15	Dr. L K Verma	Research Officer
16	Shri D N Acharya	SPO
17	Dr. Dipankar Ray	Programmer
18	Shri Anakapali Kumaraswamy	Programmer
19	Shri Anil Kumar	Assistant Registrar
20	Shri Babulal Rajak	Assistant Registrar
21	Shri M S Champia	Assistant Registrar
22	Ms. S. Kaur	Assistant Registrar
23	Shri A.K Gupta	Assistant Registrar
24	Dr. Gopal Sinha	Assistant Registrar
25	Shri M N Pandey	Assistant Registrar
26	Shri K C Nandy	Asstt. Campus Engineer (Civil)
27	Shri A K Barnwal	Asstt. Engineer (Elect)
28	Shri Shailendra Bhatia	AWS
29	Shri Brijesh Kr Pandey	Hindi Officer
30	Dr. Dhiraj Kumar	Horticulturist
31	Shri Ram Manohar	Sr. SEO

List of Faculty/Officers/Staffs appointed during 01.04.2016 to 31.03.2017

Sl. No.	Name	Designation	Department	Date of Joining
1	Shri Rajeev Upadhyay (Contract)	Assoc. Prof.	PE	25.04.2016
2	Dr. Saurabh Datta Gupta	Asstt. Prof.	AGP	01.06.2016
3	Dr. Kironmala Chanda (Contract)	Asstt. Prof.	CIVIL	09.06.2016
4	Dr. Rajib Sarkar	Asstt. Prof.	CIVIL	04.07.2016
5	Dr. Radhakanta Koner (Contract)	Asstt. Prof.	ME	14.07.2016
6	Dr. Mohit Agrawal (Contract)	Asstt. Prof.	AGP	15.07.2016
7	Prof. Ashutosh Kumar	Professor	PE	22.07.2016
8	Shri Sheo Shankar Rai (Contract)	Professor	ME	04.08.2016
9	Dr. Saravanan Pichiah	Assoc. Prof.	ESE	01.09.2016
10	Dr. Vishwas Nandkishor Khatri	Asstt. Prof.	CIVIL	08.09.2016
11	Dr. Satadru Das Adhikari (Contract)	Asstt. Prof.	CIVIL	19.09.2016
12	Prof. Biswajit Choudhary	Professor	ACH	23.05.2016
13	Dr. Ajoy Kumar Bhaumik	Assoc. Prof.	AGL	31.05.2016
14	Dr. Sarat Kumar Panda	Assoc. Prof.	CIVIL	31.05.2016
15	Dr. Anshumali	Assoc. Prof.	ESE	31.05.2016

Sl. No.	Name	Designation	Department	Date of Joining
16	Dr. Alok Sinha	Assoc. Prof.	ESE	31.05.2016
17	Shri Rajeev Kumar	Dy. Registrar	Administration	23.02.2017

Retirement List during the period 01.04.2016 to 31.06.2017

Sl. No.	Name	Designation	Date of retirement
1	Shri Atul Kumar	Assistant	30.04.2016
2	Shri Puran Singh	Peon	30.06.2016
3	Prof. A Sarkar	Professor	31.08.2016
4	Shri A K Pramanik	Mech. 'C'	31.08.2016
5	Shri D P Mahato	Peon	31.08.2016
6	Shri Praveen Kumar	TA	30.09.2016
7	Shri P K Zamindar	STA	30.09.2016
8	Shri Daluram Mahato	Peon	30.09.2016
9	Shri A K Verma	TA	31.10.2016
10	Shri Sukhdeo Hazra	Peon	31.10.2016
11	Md. Isaque Ansari	UDC	30.11.2016
12	Shri B Sahay	STA	30.11.2016
13	Shri Dukhu Hari	Safai Mazdoor	30.11.2016
14	Shri Haricharan Mahato	Peon	31.12.2016
15	Shri K B S P Singh	Sr. Driver	28.02.2017
16	Shri A K Sinha-I	UDC	28.02.1917
17	Shri H P Das	Mechanic "B"	28.02.2017
18	Shri Gunadhar Das	DEO Gr. "D"	31.03.2017
19	Shri Tulshi Mahato	Mechanic "B"	31.03.2017
20	Prof. S Laik	Professor	31.03.2017
21	Shri Abid Hussain	Head Mali	31.03.2017

Voluntary Retirement during the period 01.04.2016 to 31.06.2017

Sl. No.	Name	Designation	Date of retirement	Department
1	Dr. Vinayak Ranjan	Associate Professor	21.02.2017	Electrical Engg.

Service discontinue during the period 01.04.2016 to 31.06.2017

Sl.No.	Name	Designation	Discontinue w.e.f.	Department
1	Shri Praveen Kumar	LDC	28.02.2017	Administration

12. MEMBERS OF BOARD OF GOVERNERS & FINANCE COMMITTEE [Period: 01.04.2016 to 31.03.2017]

Members of Board of Governors

Prof. D D Misra
Chairman, BOG, IIT (ISM)
4, Arya Bhumi, P.O. Patia
Bhubhaneswar – 751 024

Director, IIT (ISM), Dhanbad (Ex-officio Member)

Prof D C Panigrahi
Director

IIT(ISM), Dhanbad-826004

Representative of MHRD, GOI (Department of Higher Education)

Shri R Subrahmanyam, IAS
Addl. Secretary to the Govt of India
Ministry of Human Resource Development
Department of Higher Education
Shastri Bhawan, New Delhi 110115

Representative of Ministry of Finance, GOI (Integrated Finance Division)

Ms. Darshana M. Dabral
Joint Secretary & Financial Advisor to Govt of India
Ministry of HRD (Integrated Finance Division)
Shastri Bhawan
New Delhi – 110115

Prof Hamid Ali (upto 23.02.2017)
Dean, Faculty of Engineering & Technology
Chairman of the Petroleum Studies
& Principal, ZH College of Engineering & Technology
Aligarh Muslim University
Aligarh – 202002

Director General of Mines Safety (Ex-officio)

Shri Rahul Guha (upto 28 .02.2017)
Director General of Mines Safety
DGMS
Dhanbad – 826 001

Shri P K Sarkar (from 01 .03.2017)
Director General of Mines Safety
DGMS
Dhanbad – 826 001

Nominee of Ministry of Coal, GOI

Vacant

Nominee of Ministry of Mines, GOI

Dr Niranjan Kumar Singh
Joint Secretary, Govt. of India
Ministry of Mines (MoM)
Room No. 322-A Wing
Shastri Bhawan, New Delhi – 110 001

Chairman-cum-Managing Director, CMPDI (Ranchi)

Shri Shekhar Saran
Chairman-cum Managing Director
Central Mine Planning & Design Institute Ltd
Gonwana Place, Ranchi – 834 008

Government of India Nominees

Chairman- cum-Managing Director
Coal India Limited
Coal Bhawan
Premise No.- 04 MAR
Plot No. AF-III, Action Area-1A
Newtown, Rajarhat
Kolkata – 700 156

Chairman-cum-Managing Director
Oil & Natural Gas Corporation Ltd
Pt. Deen Dayal Padhyay
Urja Bhawan, 5,1 Nelson Mandela Marg
Vasanj Kunj, New Delhi – 110 070

Chief Secretary, Govt. of Jharkhand
1st Floor, Project Building
Dhurwa, Ranchi – 834 004

Prof V R Desai
Department of Civil Engineering
Indian Institute of Technology
Kharagpur – 721302

Prof Anil Kumar Gupta
Director
Wadia Institute of Himalayan Geology
33 GMS Road
Dehradun – 248 001

Professor's Representative

Prof P Sen
Deptt.of Mining Engineering
IIT (ISM), Dhanbad

Nominee from Associate Professors

Dr Somnath Chattopadhyaya
Associate Professor
Deptt.of Mechanical Engineering
IIT (ISM), Dhanbad

Nominee from Assistant Professors

Dr Pankaj Mishra
Assistant Professor
Deptt.of Applied Physics
IIT(ISM), Dhanbad

Registrar & Secretary

Col (Retd) M K Singh
Registrar
IIT (ISM), Dhanbad

Members of the Finance Committee

Prof. D D Misra
Chairman, BOG, IIT (ISM)
4, Arya Bhumi, P.O. Patia
Bhubhaneswar – 751 024

**Director, IIT (ISM)
(Ex-officio Member)**

Prof D C Panigrahi
Director
IIT (ISM), Dhanbad-826004

Representative of MHRD, GOI

(Department of Higher Education)

Shri R Subrahmanyam, IAS
Addl. Secretary to the Govt of India
Ministry of Human Resource Development
Department of Higher Education
Shastri Bhawan, New Delhi 110115

Representative of Ministry of Finance, GOI

(Integrated Finance Division)

Ms. Darshana M. Dabral
Joint Secretary & Financial Advisor to Govt of India
Ministry of HRD (Integrated Finance Division)
Shastri Bhawan
New Delhi – 110115

Shri Rahul Guha (upto 28 .02.2017)
Director General of Mines Safety
DGMS
Dhanbad – 826 001

Shri P K Sarkar (from 01 .03.2017)
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Registrar & Secretary

Col (Retd) M K Singh
Registrar
IIT (ISM), Dhanbad

**INDIAN INSTITUTE OF TECHNOLOGY
(INDIAN SCHOOL OF MINES)
DHANBAD**



**ANNUAL ACCOUNTS FOR THE FINANCIAL
YEAR 2016-17**



**INDIAN INSTITUTE OF TECHNOLOGY
(INDIAN SCHOOL OF MINES)
DHANBAD
ANNUAL ACCOUNTS 2016-17**

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INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD

Executive Summary

Consolidated Annual Accounts of the Indian Institute of Technology (Indian School of Mines) Dhanbad comprises of financial statements of Plan, Non-Plan and Project Account. Apart from this the financial statements of General Provident Fund (GPF), Contributory Provident Fund (CPF) & Defined Contributory Pension Scheme (DCPS) have also been enclosed in the Annual Account of the FY 2016-17. The total income of the Institute, which includes Grants in Aid as well as Institute's internal income has been fully utilized under Plan and Non-Plan Account.

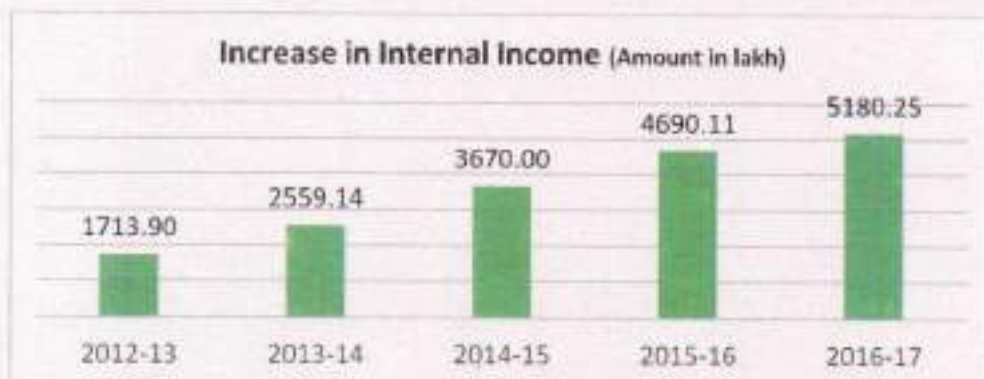
Grant in Aid (GIA)

The inflow of Grants in Aid (GIA) under Plan and Non-Plan as received from the Ministry of HRD, Govt. of India during last five years is shown in the below chart:



Internal Income

The major source of Institute's internal income is fee received from the students. This year Institute could generate total internal income of Rs. 5180.25 lakh as compared to Rs. 4690.11 lakh of previous year. The increase in internal income during last five years is shown in table below:



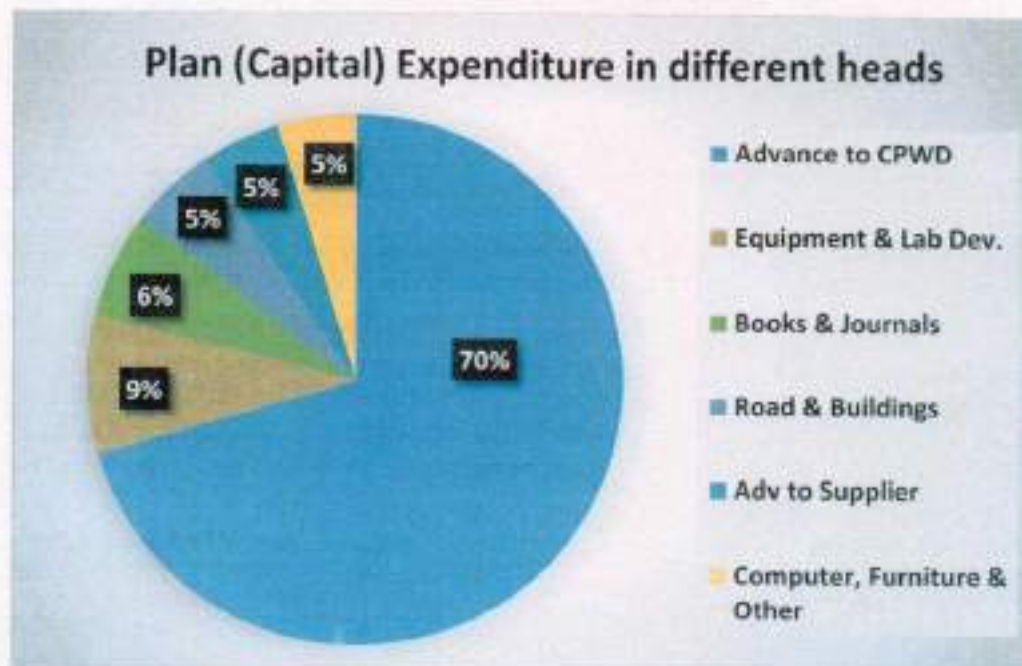
(i)



INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD

Plan Account

During the current Financial Year Institute received Grant in Aid from the Ministry HRD to the tune of Rs. 10000.00 lakh. The major portion of the plan grant is utilized under capital head, however certain revenue expenditures have also been accommodated under plan grant which is around 21.14% of the total plan grant of the current financial year. The expenditure of Rs. 7885.86 lakh has been incurred for creation of capital assets out of which Rs. 5555.21lakh has been deposited with CPWD towards construction of various buildings. Remaining Rs. 2330.65lakh has been utilized for procurement of capital items under Equipment and Lab Development (ELD), Communication System, Computer & Peripherals, Furniture & Fixtures, Library Books and Journal, Augmentation of Water and Power, Road & Buildings.



CPWD has completed and handed over to the Institute some of the major buildings like Academic Complex Building, Student Activity Centre, New Health Centre, Sub-Way etc. Other projects such as Central Library, Girls Hostel, Central Research Facility (CRF), Centers of Excellence etc. are at the verge of completion. Construction of building projects like 180 Type V & Type VI quarters, 1000- Room Boy's Hostel, Faculty Development Centre etc. are in full swing.

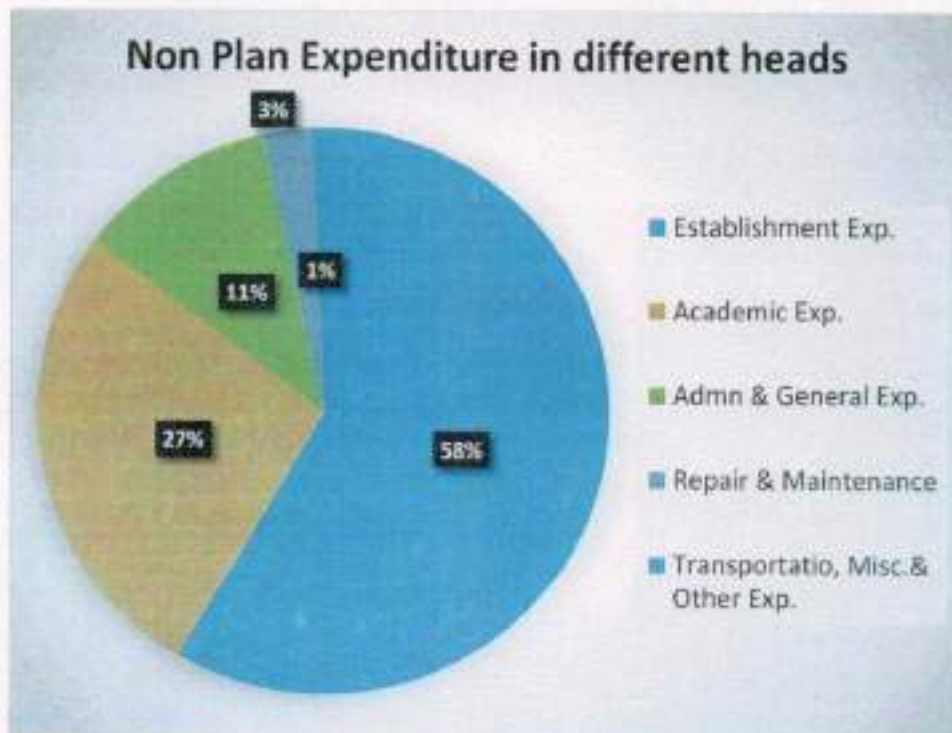
Institute is in the process of acquisition of some land from the Jharkhand state Govt. In the first phase 09 acres of land has been allotted to the Institute by the Jharkhand state Govt. Around 300 acre of additional is expected to be allotted to the Institute by the Jharkhand state Govt, this land would be somewhere near Maithon which is around 40 km from the Institute. The Institute is planning to develop the land for effective use in the coming years.



INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD

Non-Plan Account

Under Non-Plan, the Institute received an amount of Rs. 8520.00 lakh as Grants in Aid from the Ministry of HRD as against Rs. 7450.00 lakh received in the last financial year. Internal income of Rs. 5180.25 lakh was also available to meet out the non-plan expenses of the Institute. Similar to Plan income, the Income of Non-Plan account i.e. GIA and internal income has been fully utilized during the year. The major heads of expenditure under Non-Plan account comprise of Establishment Expenses, Academic Expenses, Administrative & General Expenses, Repair & Maintenance, Transportation Expenses, Miscellaneous & Other Expenses. Percentage expenses under different Non-Plan heads is shown in the below chart:



As against the expenditure of last financial year:

- a) The overall Establishment Expenditure has been increased by 7.70 % which seems to be due to the new appointments of officers & staff and enhancement of six monthly Dearness Allowance and annual increment. As on 31st March 2017, a total of 602 Faculty, Officers and staff were in the roll of the Institute and 332 Pensioners are getting pension from the Institute.

(iii)

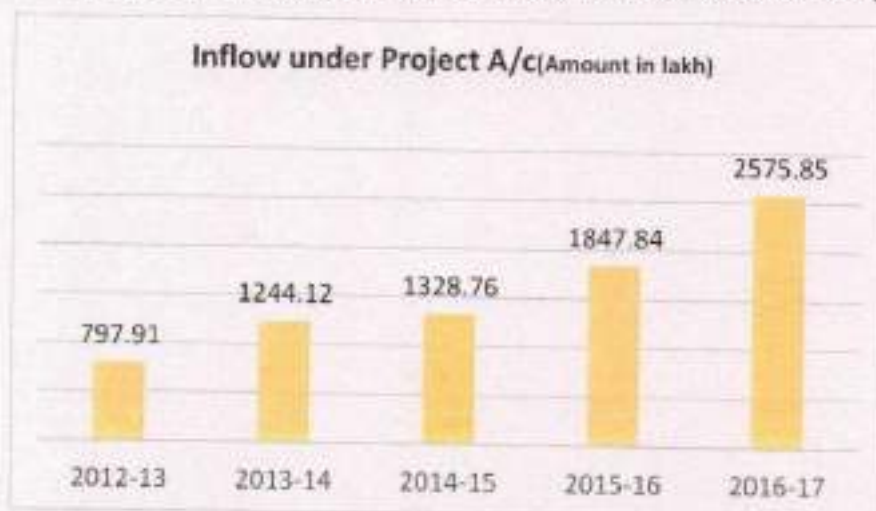


INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD

- b) As per the new formats of accounts prescribed by MHRD, Non-Plan major heads, viz. Establishment Expenses, Educational Expenses, General Expenses, Departmental Expenses, Miscellaneous/Other Expenses, Travelling Expenses have been regrouped and reamed as Establishment Expenses, Academic Expenses, Administrative & General Expenses, Repair & Maintenance, Transportation Expenses and Miscellaneous & Other Expenses.
- c) The increase in Administrative & General Expenses has been noted to be 33.61% as compared to the previous year. The increase is mainly due to the increase in electricity charges payment, security service payment and general inflationary trend. Institute's infrastructural expansion, its maintenance and general upkeep is other reason for increase in non-plan expenditure.
- d) The increase in Repair & Maintenance is noted to be 74.91% which is on account of various kinds of repair & maintenance activities took place under Civil, Electrical, Computer Hardware, Communication System & Networking, Furniture & Fixture

Project Account

Sponsored/R&D Projects: One more entity under consolidated Annual Accounts of the Institute is Project Account. Various sponsored and Research & Development (R&D) projects are sanctioned by various agencies like MHRD, UGC, DST, MOEF, CSIR, OIL, ISRO, etc. for the purpose of Research and Development. Funds are transferred from these agencies with proper heads of expenditure to cater the financial requirements of these projects. Consolidated statements of accounts of all the running projects of the Institute are the integral part of the annual accounts of the Institute. As on date around 294 Sponsored/R&D Projects have been undertaken by the Institute to cater the R&D needs of the country. During the financial year a sum of Rs. 2575.85 lakh flown-in for the purpose as compared to Rs. 1847.84 lakh in the previous financial year.



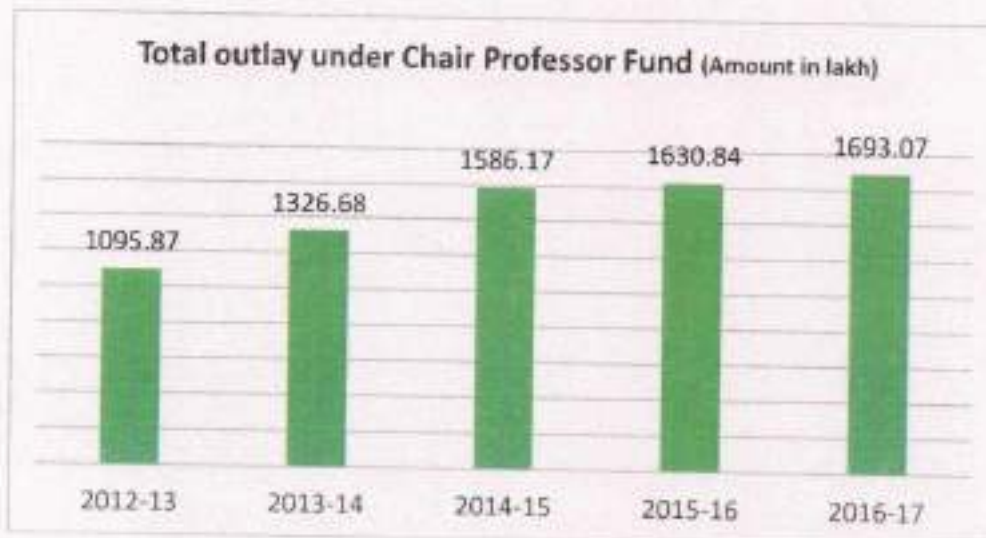
(iv)



INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD

Consultancy Projects: Apart from the R&D, it also accounts for the Consultancy Projects to cater the need of the industries in all spheres of its expertise, which is one of the sources of Internal Income. The inflow on this count in the current financial year is noted to be Rs. 1350.82 lakh as compared to Rs. 993.54 lakh during previous year.

Chair Professor Endowment Fund: Under Project account we have endowment of Chair Professors, which are run on the income generated from the endowments sponsored by Govt./ Semi Govt./ Private agencies like Coal India Limited, SAIL, NMDC, ONGC, Tata Steel, Ministry of Labour and Employment (MOLE) etc. At present nine no. of chair professors, with a total outlay of around Rs. 1693.07 lakh are with the Institute as shown in following table:



BALANCE SHEET AS ON 31ST MARCH, 2017

		(Amount in Rs)				
CORPUS/ CAPITAL FUND AND LIABILITIES	Sch No	Non Plan 2016-17	Plan 2016-17	Project 2016-17	Total Current year 2016-17	Total Previous Year 2015-16
CAPITAL FUND	I	5829,17,570.95	70758,81,684.01	3111,88,304.82	79812,42,764.25	73176,80,953.85
RESERVE AND SURPLUS	II	1026,78,206.50	0.00	661,94,424.63	1688,72,631.13	1393,84,907.45
EARMARKED/ ENDOWMENT FUND	III	3496,70,140.47	0.00	1788,76,415.06	5285,46,555.53	4552,98,631.83
CURRENT LIABILITIES AND PROVISIONS	IV	1802,90,947.05	1113,02,031.05	8094,77,376.85	11010,70,354.95	7872,53,849.74
TOTAL		12155,56,864.97	71871,83,715.06	13657,36,521.36	97684,77,101.39	86996,18,342.87
ASSETS						
FIXED ASSETS	V	6255,05,076.00	32692,86,917.19	5001,22,733.73	43949,14,726.92	40932,81,507.92
LESS: PROVISION FOR DEPRECIATION		1151,27,276.79	17021,90,796.29	2978,92,659.68	21152,10,732.76	18274,65,358.86
NET BLOCK (FIXED ASSETS)		5103,77,799.21	15670,96,120.90	2022,30,074.05	22797,03,994.16	22658,16,149.06
CURRENT ASSETS, LOANS, ADVANCES	VI	7051,79,065.76	56200,87,594.16	11635,06,447.31	74887,73,107.23	64338,02,193.81
TOTAL		12155,56,864.97	71871,83,715.06	13657,36,521.36	97684,77,101.39	86996,18,342.87
SIGNIFICANT ACCOUNTING POLICIES	X VII					
CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS	XVIII					



(M N PANDEY)

ASST REGISTRAR (L&B)



(M S CHAMPIA)

ASST REGISTRAR (PA)



(PRABODH PANDEY)

DY REGISTRAR (F&A)



(C M K SINGH)

REGISTRAR



(PROF D C PANIGRAHI)

DIRECTOR

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD 1.4.2016 TO 31.3.2017

		(Amount in Rs)				
	Sch No	Non Plan 2016-17	Plan 2016-17	Project 2016-17	Total Current year 2016-17	Total Previous Year 2015-16
INCOME						
Grants-in-aid from MHRD, GOI	VII	8520,00,000.00	10000,00,000.00	0.00	18520,00,000.00	17450,00,000.00
Less: Transferred to Capital Fund towards non recurring expenses		-	7885,85,519.00	0.00	7885,85,519.00	7678,48,684.00
Net Grants in Aid		8520,00,000.00	2114,14,481.00	0.00	10634,14,481.00	9771,51,316.00
Fees from Students	VIII	4580,04,300.14	0.00	0.00	4580,04,300.14	4122,88,622.61
Interest Income	IX	12,08,241.00	-	569,63,488.95	581,71,727.95	610,06,089.79
Other Income	X	588,12,118.50	0.00	0.00	588,12,118.50	556,29,478.90
TOTAL (A)		13700,24,659.64	2114,14,481.00	569,63,488.95	16384,02,627.59	15060,75,487.30
EXPENDITURE						
Establishment Expenses	XI	8014,75,572.00	-	0.00	8014,75,572.00	7441,26,053.00
Academic Expenses	XII	3572,85,853.00	1276,02,896.00	0.00	4848,88,749.00	5006,79,075.00
Administrative & General Expenses	XIII	1537,29,793.00	544,74,195.75	0.00	2082,03,988.75	1558,18,212.00
Repair & Maintenance	XIV	385,32,475.00	-	0.00	385,32,475.00	220,29,505.00
Transportation Expenses	XV	42,56,073.00	-	0.00	42,56,073.00	23,69,608.00
Miscellaneous/ other Expenses	XVI	47,47,028.06	293,42,155.00	10,570.37	340,99,753.43	212,26,468.00
Total Expenditure before depreciation (B)		13700,26,794.06	2114,19,246.75	10,570.37	15914,56,611.18	14462,48,921.00
Balance being surplus/(Deficit) before Depreciation (C)		(2,134.42)	(4,765.75)	569,52,916.58	569,46,016.41	-
Depreciation of Plan & Non Plan. Depreciation of Project. A/c transferred to Capitalized Fund for Assets (D)	V	164,35,646.06	2245,42,499.51	0.00	2409,78,145.57	-
Balance being surplus/(Deficit) after Depreciation (C - D)		(164,37,780.48)	(2245,47,265.26)	569,52,916.58		
Balance being surplus/(Deficit) transferred to Capital Fund Plan and Non Plan. Project surplus transferred to Non Plan Endowment Fund.		(164,37,780.48)	(2245,47,265.26)	569,52,916.58		
Significant Accounting Policies	XVII					
Contingent Liabilities and Notes on Accounts	XVIII					

(M N PANDEY)
ASST REGISTRAR (L&B)

(PRABODH PANDEY)
DY REGISTRAR (F&A)

(COL M K SINGH)
REGISTRAR

(M S CHAMPIA)
ASST REGISTRAR (PA)

(PROF D C PANIGRAHI)
DIRECTOR




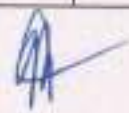
RECEIPTS & PAYMENTS ACCOUNT FOR THE PERIOD 1.4.2016 TO 31.3.2017

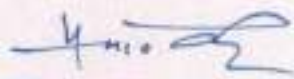
RECEIPTS	Sch No.	Non Plan 2016-17	Plan 2016-17	Project 2016-17	Total Current Year 2016-17	Total Previous Year 2015-16
I. Opening Balances	R 1					
(a) Cash Balances		2,18,614.70	-	1,77,246.00	3,95,860.70	1,68,320.70
(b) Bank Balances						
i. In Current Accounts		2189,53,792.35	865,70,741.91	2,32,363.90	3057,56,898.16	2952,47,272.77
ii. In Deposit Accounts					-	-
ii. In Savings Accounts		29,09,831.01	-	609,51,566.19	638,61,197.20	532,61,531.81
II. Grants Received	R 2					
a) From Government of India		8520,00,000.00	10000,00,000.00	-	18520,00,000.00	17450,00,000.00
b) From State Government		-	-	-	-	-
c) From other sources (details)		-	-	-	-	-
III. Academic Receipts	R 3	4626,94,895.14	-	-	4626,94,895.14	3964,05,607.61
IV. Receipts against Earmarked / Endowment Funds / Other Reserve Funds	R 4	736,10,103.00	-	283,95,560.68	1020,05,663.68	882,42,425.76
V. Receipts against Sponsored Projects / Schemes / Others	R 5	15,73,040.00	-	4557,74,016.80	4573,47,056.80	3243,78,155.80
VI. Receipts against sponsored Fellowships and Scholarships	R 6	29,87,755.00	-	32,81,137.00	62,68,892.00	57,34,774.00
VII. Interest received on:	R 7					
a) Bank Deposits		121,34,459.00	95,16,477.00	146,66,753.00	363,17,689.00	1000,71,111.09
b) Loans & Advances		1,87,289.00	-	-	1,87,289.00	2,02,457.00
c) Savings Bank Accounts		-	-	20,49,209.88	20,49,209.88	12,42,569.00
VIII. Investments encashed	R 8	700,00,000.00	-	-	700,00,000.00	
IX. Term Deposits with Schedules Banks encashed	R 9	6975,00,000.00	8190,00,000.00	800,00,000.00	15965,00,000.00	27721,53,546.00
X. Other Income (including Prior Period Income)	R 10	285,91,484.83		8,409.00	285,99,893.83	230,10,658.00
XI. Deposits and Advances	R 11	1803,12,370.00	70,81,962.00	44,84,972.00	1918,79,304.00	2146,15,392.50
XII. Miscellaneous Receipts including Statutory Receipts	R 12	1272,51,118.01	62,36,037.00	370,49,093.49	1705,36,248.50	1293,17,204.78
XIII. Any Other Receipts	R 13	1481,68,015.87	74,27,241.75	1478,19,092.42	3034,14,350.04	2109,37,714.04
Total		28790,92,567.91	19358,32,459.66	8348,89,420.36	56498,14,447.93	63599,88,740.66



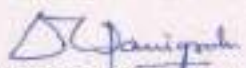
PAYMENTS	Sch No.	Non Plan 2016-17	Plan 2016-17	Project 2016-17	Total Current Year 2016-17	Total Previous Year 2015-16
I. Expenses:						
a) Establishment Expenses	P 1 (a)	7573,00,331.00	-	-	7573,00,331.00	7006,39,422.00
b) Academics Expenses	P 1 (b)	3912,55,174.00	1007,62,994.00	-	4920,18,168.00	5002,74,253.00
c) Administrative Expenses	P 1 (c)	1639,87,106.00	454,89,130.50	-	2094,76,236.50	1561,96,907.00
d) Transportation Expenses	P 1 (d)	40,59,616.00	-	-	40,59,616.00	191,60,491.00
e) Other expenses - Miscellaneous	P 1 (e)	43,64,800.93	245,76,145.00	12,074.37	289,53,020.30	38,89,004.00
f) Repairs & Maintenance	P 1 (f)	358,58,291.00	-	-	358,58,291.00	213,42,938.00
II. Payments against Earmarked / Endowment Funds / Other Reserve Funds	P 2	40,79,913.00	-	143,48,913.00	184,28,826.00	166,67,234.00
III. Payments against sponsored Projects / Schemes	P 3	-	-	2945,84,745.60	2945,84,745.60	2326,28,241.80
IV. Payments against Sponsored Fellowships / Scholarships	P 4	29,90,712.00	-	28,42,494.00	58,33,206.00	47,59,317.00
V. Term Deposits with Scheduled Banks	P 5	10190,00,000.00	9270,00,000.00	1367,00,000.00	20827,00,000.00	26168,20,339.00
VI. Expenditure on Fixed Assets and Capital Works-in-Progress						
a) Fixed Assets	P 6 (a)	41,37,133.00	1950,23,734.00	-	1991,60,867.00	2535,81,090.00
b) Capital Works-in-Progress	P 6 (b)	-	-	-	-	-
VII. Other Payments including statutory payments	P 7	1198,38,503.24	54,89,663.00	358,95,202.00	1612,23,368.24	1290,17,296.00
VIII. Refunds of Grants	P 8	-	-	-	-	-
IX. Deposits and Advances	P 9	938,54,857.00	5980,01,545.00	120,40,956.00	7038,97,358.00	9712,38,565.00
X. Other Payments	P 10	2021,80,035.00	118,39,254.00	2178,06,339.75	4338,25,628.75	3637,59,687.00
XI. Closing Balances	P 11					
(a) Cash in hand		39,275.20	-	1,211.00	40,486.20	3,95,850.70
(b) Bank Balances						
i. In Current Accounts		737,92,053.53	276,49,994.16	2,31,578.53	1016,73,626.22	3057,56,898.16
ii. In Deposit Accounts						
iii. In Savings Accounts		23,54,767.01	-	1204,25,906.11	1227,80,673.12	638,61,197.20
Total		28790,92,567.91	19358,32,459.66	8348,89,420.36	56498,14,447.93	63599,88,740.86


(M N PANDEY)
ASST REGISTRAR (L&B)


(M S CHAMPIA)
ASST REGISTRAR (PA)


(PRABODH PANDEY)
DY REGISTRAR (F&A)


(COL M K SINGH)
REGISTRAR


(PROF D C PANIGRAHI)
DIRECTOR

**INDIAN INSTITUTE OF TECHNOLOGY
(INDIAN SCHOOL OF MINES)
DHANBAD**



**SCHEDULES: BALANCE SHEET, INCOME & EXPENDITURE
A/C FOR THE YEAR ENDING 31st MARCH 2017**



SCHEDULES : BALANCE SHEET FOR THE YEAR ENDING 31st MARCH 2017

SCHEDULE - I: CAPITAL FUND				(Amount in Rs)	
SI.No.	PARTICULARS	Current Year : 2016-17		Previous Year : 2015-16	
1 (A) Plan:					
1.1.1	Opening Balance	64692,27,569.27		59429,37,890.83	
1.1.2	Add : Previous Year Adjustment	426,15,861.00		201,81,711.03	
1.1.3	Add : Non-recurring grants-in-aid received during the year	7885,85,519.00		7676,35,276.00	
1.1.4	Less : Deficit	2245,47,265.26		6,449.00	
1.1.5	Less : Depreciation	0.00		2815,00,859.59	
1.1.6	Sub-total		70758,81,684.01		64692,27,569.27
1 (B) Non Plan:					
1.2.1	Opening Balance	5525,29,317.43		762,05,476.43	
1.2.2	Add: Transfer from Endowment Fund	319,43,535.00		4890,70,649.00	
1.2.3	Add: Non-recurring grants-in-aid received during the year	0.00		2,13,408.00	
1.2.4	Less: Depreciation during the Yr	0.00		129,36,924.51	
1.2.5	Add: Rectification for previous yr	0.00		0.00	
1.2.6	Less: Deficit	164,37,780.48	5680,35,071.95	23,191.49	5525,29,317.43
1.2.7	Capitalised fund for Assets (Opening Bal)	121,95,737.00		89,76,889.00	
1.2.8	Add : Capitalised fund for Assets (During the Yr) PDA	26,86,762.00	148,82,499.00	32,18,848.00	121,95,737.00
1.2.9	Sub-total		5829,17,570.95		5647,25,054.43
1 (C) Project:					
1.3.1	(a) Capital Fund (Opening Balance)	1211,73,812.44		1211,73,812.44	
1.3.2	Less : Payments from Old Consultancy Projects (See Notes on Accounts)				
1.3.3	Less : Transfer for creation of opening balance towards undistributed consultancy projects		1211,73,812.44		1211,73,812.44
1.3.4	(b) Project Endowment Fund	2,49,515.69	2,49,515.69	2,49,515.69	2,49,515.69
1.3.5	(c) Reserve fund	68,30,829.87	68,30,829.87	68,30,829.87	68,30,829.87
1.3.6	(d) Corpus Fund	44,10,060.50	44,10,060.50	44,10,060.50	44,10,060.50
1.3.7	(e) Capitalised fund for Assets (OB)	1510,64,111.65		1343,45,801.20	
1.3.8	Add: Additions during the year	742,27,203.00		571,07,162.00	
1.3.9	Less: Depreciation on Assets including adjustment for previous years	467,67,228.33	1785,24,086.32	403,88,851.55	1510,64,111.65
1.3.10	Sub-total		3111,88,304.82		2837,28,330.15
1.A	CAPITAL FUND - PLAN		70758,81,684.01		64692,27,569.27
1.B	CAPITAL FUND - NON PLAN		5829,17,570.95		5647,25,054.43
1.C	CAPITAL FUND - PROJECT		3111,88,304.82		2837,28,330.15
1.00	TOTAL (CAPITAL FUND)		79699,87,559.78		73176,80,953.85

**SCHEDULE - II: RESERVES AND SURPLUS****Capital Reserve (Non Plan):**

Sl.No.	PARTICULARS	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
Non-Plan:					
2.2.1	Building Fund	42,50,000.00	0.00	0.00	42,50,000.00
2.2.2	Computer Development Fund	0.00	0.00	0.00	0.00
2.2.3	Departmental Development Fund	1,33,045.00	0.00	0.00	1,33,045.00
2.2.4	Donation Fund	20,57,500.00	0.00	0.00	20,57,500.00
2.2.5	Laboratory Development Fund	0.00	0.00	0.00	0.00
2.2.6	Library Development Fund	3,10,536.00	0.00	0.00	3,10,536.00
2.2.7	School Development Fund	243,65,958.50	1,69,592.00	0.00	245,35,548.50
2.2.8	Student Innovative Project Fund	479,94,577.00	235,92,000.00	1,95,000.00	713,91,577.00
2.2.9	Total Reserves (Non Plan)	791,11,614.50	237,61,592.00	1,95,000.00	1026,78,206.50

(A) Department Development Funds(Project):

Sl.No.	PARTICULARS	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
PROJECT:					
2.3.1	AGL Department - DDF	15,40,850.00	1,69,664.00		17,10,514.00
2.3.2	AGL XRF Maintenance Fund	1,40,520.00	7,500.00		1,48,020.00
2.3.3	AGP Department - DDF	6,68,725.00	1,00,986.00	21,000.00	7,48,711.00
2.3.4	Applied Mathematics	63,430.00	36,910.00	2,062.00	98,288.00
2.3.5	Applied Physics	4,95,792.00	1,14,010.00	3,09,500.00	3,00,302.00
2.3.6	Central Administrative Charges	6,97,667.00	16,27,127.00	14,38,158.00	8,66,636.00
2.3.7	CHEMICAL ENGG. DEPT.	36,398.00	4,00,000.00	4,00,000.00	36,398.00
2.3.8	Chemistry Department	1,54,171.30	1,52,407.00	1,72,544.00	1,34,034.30
2.3.9	CIVIL ENGG. DEPT. DEV. FUND	3,45,245.00	5,09,479.00	4,00,000.00	4,54,724.00
2.3.10	C.L.M.M Department	61,476.00			61,476.00
2.3.11	Computer Centre	3,567.00			3,567.00
2.3.12	C.S.E Department	2,29,076.00	3,90,490.00	4,65,089.00	1,54,477.00
2.3.13	Director Discretionary Fund	4,16,837.00			4,16,837.00
2.3.14	EDC Development Fund	58,22,888.77	13,93,924.00	56,700.00	71,60,112.77
2.3.15	EDC Support Services	82,00,050.00			82,00,050.00
2.3.16	EDC Xeroxing (4000) Fund	3,19,314.42	35,122.00	9,975.00	3,44,461.42
2.3.17	E & I DEPTT.	76,463.00	5,03,904.00	4,00,000.00	1,82,367.00
2.3.18	ELECTRICAL ENGG.(DEPT.)	3,01,226.00	6,00,000.00	6,22,001.00	79,225.00
2.3.19	ESE Department	49,60,474.86	4,46,208.00	3,96,475.00	50,10,207.86
2.3.20	FME Department	17,10,191.25	4,06,270.00	3,18,227.00	17,98,234.25
2.3.21	Gas Chromatograph Maint. Fund of ME	2,440.00			2,440.00
2.3.22	Geology Xeroxing (6000) Fund	41,454.00			41,454.00
2.3.23	HSS DEPTT.		6,822.00		6,822.00
2.3.24	Lab. Development Fund	4,48,393.52			4,48,393.52
2.3.25	Library Card	77,707.00	12,522.00	200.00	90,029.00
2.3.26	Library Development Fund	4,07,482.85	9,922.00	2,71,858.00	1,45,546.85



2.3.27	Library Fine	20,837.00	20,527.00		41,364.00
2.3.28	MECHANICAL ENGG. DEPT.	1,81,476.00	13,61,891.00	12,11,970.00	3,31,397.00
2.3.29	ME&MME Department	7,41,641.40			7,41,641.40
2.3.30	Mining Engg. Department	114,38,910.97	23,26,750.84	18,45,287.00	119,20,374.81
2.3.31	Mining Machinery Engg. Dept.	8,73,220.00	8,31,415.00	5,56,650.00	11,47,985.00
2.3.32	Mining Machinery Engg. Deptt.	16,562.00			16,562.00
2.3.33	M S DEPARTMENT	8,99,773.50	2,13,363.00	38,278.00	10,74,860.50
2.3.34	P.E. Department	19,41,115.50	3,25,859.00	2,00,000.00	20,66,974.50
2.3.35	Reprographic Unit	31,553.00			31,553.00
2.3.36	Sub-total (DDF)	433,68,929.34	120,03,072.84	93,35,962.00	460,36,040.18

(B) PROFESSIONAL DEVELOPMENT FUNDS

Sl.No.	PARTICULARS	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
2.3.37	Achamma Bobby, PDF	16,600.00		13,530.00	3,070.00
2.3.38	A. CHATTOPADHYAY, (AM)	10,285.00			10,285.00
2.3.39	A CHATTOPADHYAY PDF	32,390.00			32,390.00
2.3.40	AJAY MANDAL, PDF	23,313.00	10,177.00		33,490.00
2.3.41	AJIT KUMAR, PDF		22,167.00		22,167.00
2.3.42	AJOY KUMAR BHAUMIK, PDF	55,368.00			55,368.00
2.3.43	A. K. BASU, PDF(ME&MME)	5,276.00			5,276.00
2.3.44	A K BEHURA, PDF		6,822.00		6,822.00
2.3.45	AKHILESH PRASAD, PDF	3,900.00	3,560.00	3,690.00	3,770.00
2.3.46	A K MISHRA, PDF	2,22,059.00	4,55,283.00	1,90,649.00	4,86,693.00
2.3.47	A K MUKHOPADHYAY, MME	10,80,659.00	2,39,631.00	26,514.00	12,93,776.00
2.3.48	A. K. PAL, PDF	81,338.00	11,841.00	49,650.00	43,529.00
2.3.49	A K Pathak PDF	95,331.00	37,800.00		1,33,131.00
2.3.50	A K SINGH, (ESE), PDF		17,499.00		17,499.00
2.3.51	A K VARMA, PDF	33,190.00			33,190.00
2.3.52	A L AGGARWAL, PDF	58,203.00			58,203.00
2.3.53	ALOK KR. DAS, PDF (MECH)	12,000.00	4,996.00		16,996.00
2.3.54	ALOK SINHA, PDF	64,950.00	46,364.00	31,719.00	79,595.00
2.3.55	Amgoth Tarachand, PDF	3,501.00			3,501.00
2.3.56	Amit Kr. Verma, PDF	26,604.00	10,000.00		36,604.00
2.3.57	Anand Anupam, PDF	38,268.00			38,268.00
2.3.58	ANSHUMALI, PDF (ESE)	89,918.00	50,771.00		1,40,689.00
2.3.59	ANURAG JAYSWAL, PDF	38,800.00			38,800.00
2.3.60	A R DIXIT, PDF	8,281.00			8,281.00
2.3.61	Arup Kumar Pal, PDF (CSE)	3,364.00			3,364.00
2.3.62	A. SARKAR, PDF (CHEM)	17,364.67			17,364.67
2.3.63	ASHISH MALLICK, PDF (MECH)	40,000.00	20,000.00		60,000.00
2.3.64	A. S. Venkatesh PDF	19,393.00	41,003.00		60,396.00
2.3.65	BADAM SINGH KUSHVAH, PDF	29,800.00	2,000.00	99.00	31,701.00
2.3.66	Basanta Bhaduri, PDF		4,947.00		4,947.00
2.3.67	B. C. SARKAR, PDF	2,87,972.00			2,87,972.00
2.3.68	BIBHASH CHANDRA, PDF (MS)	2,332.00	2,141.00		4,473.00
2.3.69	BISWAJIT CHOWDHURY, PDF	5,315.00	40,610.00	2,000.00	43,925.00
2.3.70	Biswajit Paul, PDF	2,12,123.00	12,404.00		2,24,527.00



2.3.71	B K Mishra, PDF	24,111.00	21,431.00	3,800.00	41,742.00
2.3.72	B K NANDI, PDF	15,600.00			15,600.00
2.3.73	B. M. KUMAR, PDF	865.00			865.00
2.3.74	Bobby K Antony, PDF (AP)	12,640.00	33,000.00		45,640.00
2.3.75	B S CHOUDHARY, PDF	21,227.00	10,433.00	7,378.00	24,282.00
2.3.76	CHANCHAL HALDER, PDF (AC)	40,000.00			40,000.00
2.3.77	CHANDAN BHAR, DR PDF	96,784.00	45,434.00		1,42,218.00
2.3.78	Chandan Guria, PDF	78,999.00	14,610.00		93,609.00
2.3.79	CHIRANJEEV KUMAR, PDF	278.00	12,702.00		12,980.00
2.3.80	D C Panigarhi, PDF	35,06,272.00	6,83,689.84		41,89,941.84
2.3.81	DEBJANI MITRA, PDF	15,428.00			15,428.00
2.3.82	DEEPAK K MANDAL, PDF		3,200.00		3,200.00
2.3.83	DHARAVATH RAMESH, PDF		5,257.00		5,257.00
2.3.84	DHEERAJ KUMAR PDF	7,08,003.00	3,30,461.00	72,400.00	9,68,064.00
2.3.85	Dinabandhu Pradhan, PDF		13,000.00		13,000.00
2.3.86	Dipankar Roy, PDF	6,839.00	3,724.00		10,563.00
2.3.87	DIPANKAR SRIMANI, PDF (AC)	7,000.00			7,000.00
2.3.88	D P MISHRA, PDF		14,000.00		14,000.00
2.3.89	G C NAYAK, PDF	60,000.00	6,000.00		66,000.00
2.3.90	G K VISHWAKARMA, PDF		5,539.00		5,539.00
2.3.91	G N SINGH, PDF		4,188.00		4,188.00
2.3.92	G. P. KARMAKAR, PDF	840.00			840.00
2.3.93	G S PATHAK, PDF	454.00			454.00
2.3.94	Gurdeep Singh, PDF	13,07,780.94			13,07,780.94
2.3.95	HAIDER BANKA, PDF		5,680.00		5,680.00
2.3.96	H P NAYAK, PDF	51,000.00			51,000.00
2.3.97	JAIRAM MANAM, PDF		40,000.00		40,000.00
2.3.98	Jayanta Das, PDF (MME)	20,000.00	12,576.00		32,576.00
2.3.99	JIARAM MANAM, PDF (AP)	60,000.00			60,000.00
2.3.100	Jinia Nandy, PDF	20,000.00			20,000.00
2.3.101	J K PATTANAYAK, PDF	24,235.00	80,955.00	29,000.00	76,190.00
2.3.102	Kalyan Chatterjee, PDF	16,222.00			16,222.00
2.3.103	KAMPAN MUKHERJEE PDF	86,524.00			86,524.00
2.3.104	Kaushal Kumar, PDF (AP)	4,000.00	30,661.00		34,661.00
2.3.105	K.DASGUPTA, PDF	7,60,889.00	2,11,996.00		9,72,885.00
2.3.106	KEKA OJHA, PDF	31,769.00		31,694.00	65.00
2.3.107	K K SINGH, PDF	3,000.00	7,568.00		10,568.00
2.3.108	K SARKAR, PDF (AGL)	10,000.00	10,000.00		20,000.00
2.3.109	K S THYAGARAJ, PDF	11,560.00			11,560.00
2.3.110	L A Kumaraswamidhas, PDF	14,766.00	47,061.00		61,827.00
2.3.111	L. N. JHA, PDF	1,576.00			1,576.00
2.3.112	Lohit Kumar Nainegali, PDF		8,867.00		8,867.00
2.3.113	MANISH KR. JAIN, PDF	6,675.00	9,358.00		16,033.00
2.3.114	M Jawed, PDF	1,43,374.00	17,500.00	2,009.00	1,58,865.00
2.3.115	M K MUKHERJEE, PDF	83,278.00			83,278.00
2.3.116	M L Chandravanshi, PDF	11,000.00			11,000.00
2.3.117	Moirangtham R Singh PDF (AP)	20,000.00		19,529.00	471.00
2.3.118	MRINALINI PANDEY, PDF	4,550.00			4,550.00



2.3.119	MUKUL KR. DAS, PDF		2,237.00		2,237.00
2.3.120	NILADRI DAS, PDF	70,947.00	10,345.00	76,411.00	4,891.00
2.3.121	NITAI PAL, PDF	14,689.00			14,689.00
2.3.122	N R Mandre, PDF	73,601.00	19,188.00		92,789.00
2.3.123	N Suresh, Assoc. PDF	4,10,468.00	79,674.00		4,90,142.00
2.3.124	Pankaj Kr. Jain, PDF	700.00			700.00
2.3.125	Pankaj Mishra, PDF	20,175.00			20,175.00
2.3.126	Patitapaban Sahu, PDF		40,000.00		40,000.00
2.3.127	Pawan Kr. Singh, PDF		22,534.00		22,534.00
2.3.128	PHALGUNI SEN, PDF	83,351.00	38,267.00		1,21,638.00
2.3.129	P K Behra, PDF	1,24,237.00		10,450.00	1,13,787.00
2.3.130	P K JANA, PDF	6,649.00	3,138.00		9,787.00
2.3.131	P K KHAN, PDF	32,001.00		32,001.00	
2.3.132	P K MAHATO, PDF (MECH)	20,000.00			20,000.00
2.3.133	P K SADHU, PDF	19,377.00			19,377.00
2.3.134	P K SINGH, PDF (ESE)	63,148.00			63,148.00
2.3.135	P N S SINGHA ROY, PDF	46,113.00			46,113.00
2.3.136	P P Bahuguna, PDF	1,41,262.00			1,41,262.00
2.3.137	P. P. CHAKRABORTY, PDF	800.00			800.00
2.3.138	Pramod Pathak PDF	1,38,182.00	17,828.00	15,629.00	1,40,381.00
2.3.139	PRANAB DAS, PDF		46,792.00		46,792.00
2.3.140	Prasant Kr. Sharma, PDF	31,255.00			31,255.00
2.3.141	PRASUN JANA, PDF		14,572.00		14,572.00
2.3.142	P. R. MOHANTY, PDF	42,394.00			42,394.00
2.3.143	P R SAHOO, PDF	3,500.00	6,124.00		9,624.00
2.3.144	P. SEN, PDF	1,74,208.00			1,74,208.00
2.3.145	P S GUPTA, PDF	1,93,512.00			1,93,512.00
2.3.146	P S MUKHERJEE, PDF	3,79,495.00			3,79,495.00
2.3.147	P S PAUL, PDF	35,814.00			35,814.00
2.3.148	Raghvendra K Choudhary, PDF		31,000.00		31,000.00
2.3.149	RASHMI MADHURI, PDF		50,000.00		50,000.00
2.3.150	RASHMI MATHUR, PDF	30,000.00		30,000.00	
2.3.151	R B CHOUDHARY, PDF	12,000.00	5,402.00		17,402.00
2.3.152	RIMA CHATTERJEE, PDF	1,645.00	18,822.00		20,467.00
2.3.153	R. K. DUBEY, PDF	22,055.00		6,740.00	15,315.00
2.3.154	R K GANGWAR, PDF (ECE)	20,000.00			20,000.00
2.3.155	R. L. MALHOTRA, PDF	83,456.00			83,456.00
2.3.156	R M BHATTACHARYA, PDF		81,317.00		81,317.00
2.3.157	R N HOTA, PDF (MECH)	60,000.00			60,000.00
2.3.158	Rohit P John, PDF	23,000.00			23,000.00
2.3.159	R Thangavel, PDF (AP)	23,200.00			23,200.00
2.3.160	R. Venugopal, PDF	67,689.00			67,689.00
2.3.161	SACHIN KUMAR SINGH, PDF		26,400.00		26,400.00
2.3.162	SACHIN TRIPATHI, PDF, CSE	56,393.00	17,280.00		73,673.00
2.3.163	SAGAR PAL, PDF	40,078.00	20,000.00	18,840.00	41,238.00
2.3.164	SAHENDRA SINGH, PDF (AGL)	30,000.00			30,000.00
2.3.165	SANDEEP MONDAL, PDF	9,345.00	20,765.00	8,600.00	21,510.00
2.3.166	SANJAY MANDAL, PDF	4,112.00			4,112.00



2.3.167	Sanjeev Kr. Paul, PDF (AGP)	74,429.00	14,000.00		88,429.00
2.3.168	SANKET NAYAK, PDF (CE)	16,520.00		15,663.00	857.00
2.3.169	SANTANU DWARI, PDF	13,257.50			13,257.50
2.3.170	SARUN PM, PDF (PHYSICS)	2,000.00			2,000.00
2.3.171	SAUMYA SINGH, PDF	35,106.00	9,170.00		44,276.00
2.3.172	S. BHATTACHARYA, PDF	2,11,552.00	48,930.00	3,739.00	2,56,743.00
2.3.173	S. Bhattacharya, PDF (E & I)	11,160.00			11,160.00
2.3.174	S B SRIVASTAVA, PDF	36,171.00			36,171.00
2.3.175	S C DUTTA, PDF (CE)	3,01,084.00	54,712.00		3,55,796.00
2.3.176	S. CHOUDHARI, PDF (CIL)	2,12,751.00		16,646.00	1,96,105.00
2.3.177	SHALINI GOUTAM, PDF	8,658.00			8,658.00
2.3.178	SHALIVAHAN, PDF	69,720.00			69,720.00
2.3.179	Shatrughan Soren, PDF	5,736.00			5,736.00
2.3.180	Shibayan Sarkar, PDF (MECH)	22,400.00			22,400.00
2.3.181	SHRAVAN KUMAR, PDF	14,199.00	49,031.00	1,505.00	61,725.00
2.3.182	SHUSHRUT DAS, PDF	3,131.50			3,131.50
2.3.183	Siddharth Sengupta, PDF (CE.)	30,000.00			30,000.00
2.3.184	SISHIR GUPTA, PDF		7,632.00	2,053.00	5,579.00
2.3.185	S K GHOSHAL, PDF	327.00			327.00
2.3.186	S. K. GUPTA, PDF	1,01,690.00	14,907.00	54,300.00	62,297.00
2.3.187	S. K. MAITI, PDF	1,03,042.00	18,339.00		1,21,381.00
2.3.188	S K PADHI, PDF (A. CHEM.)	20,000.00			20,000.00
2.3.189	S K PAL, (AGP), PDF	33,624.00	68,164.00		1,01,788.00
2.3.190	S K PANDA, PDF	27,641.00	23,500.00	5,745.00	45,396.00
2.3.191	S K PAUL, (ECE), PDF	3,900.00			3,900.00
2.3.192	S K RAGHUWANSHI, PDF		38,936.00		38,936.00
2.3.193	S K SAHU, PFD (CHEMISTRY)	5,000.00	30,000.00		35,000.00
2.3.194	S K SHARMA, (PHY), PDF	23,920.00			23,920.00
2.3.195	S LAIK PDF	56,728.00			56,728.00
2.3.196	S MOHANTY, PDF	1,30,192.00			1,30,192.00
2.3.197	S NARAYANAN, PDF		40,000.00		40,000.00
2.3.198	S N Mukherjee, PDF	86,353.00			86,353.00
2.3.199	SOMNATH YADAV, PDF	4,482.00			4,482.00
2.3.200	Soument Maiti, PDF (AGP)	10,000.00			10,000.00
2.3.201	Soumitra Maity, PDF (CHEM)	7,000.00	20,000.00	7,000.00	20,000.00
2.3.202	SOWMIYA CHAWLA, PDF		12,400.00		12,400.00
2.3.203	Sridhar Sahu, PDF (AP)	14,500.00		5,000.00	9,500.00
2.3.204	Srinivas Pasupuleti, PDF		10,000.00		10,000.00
2.3.205	S SARANGI, PDF	40,142.00	30,800.00		70,942.00
2.3.206	SUBINDU KUMAR, PDF	9,600.00	6,405.00		16,005.00
2.3.207	Subrato Kr. Ghosh, PDF	3,987.00	7,000.00		10,987.00
2.3.208	SUKANTA DEY, PDF, AGL	58,391.00			58,391.00
2.3.209	Sushila Maheshkar, PDF	2,554.00			2,554.00
2.3.210	SWAPAN DEY, PDF	-1,683.00	16,000.00		14,317.00
2.3.211	Tanmoy Maiti, PDF	34,888.00	31,533.00		66,401.00
2.3.212	TANVEER ALAM, PDF		18,007.00		18,007.00
2.3.213	Thangavel, PDF	4,000.00			4,000.00
2.3.214	T H Syed, PDF	29,518.00	20,400.00		49,918.00



2.3.215	T.K. CHATTERJEE, PDF	2,28,923.00	22,807.00		2,51,730.00
2.3.216	T K NAIYA, PDF	18,316.00	28,145.00	4,296.00	42,165.00
2.3.217	T KUMAR PDF	9,368.00	29,400.00		38,768.00
2.3.218	T Mazumdar, PDF	1,422.00			1,422.00
2.3.219	T Sharma, PDF	3,15,374.00			3,15,374.00
2.3.220	U K. Singh PDF	2,89,983.00	21,491.00	54,173.00	2,57,301.00
2.3.221	UPAMA DUTTA, PDF	8,000.00	13,200.00		21,200.00
2.3.222	U KR. SINGH, PDF (AGP)	3,11,685.00		55,467.00	2,56,218.00
2.3.223	VIKASH MAHATO PDF	1,783.00			1,783.00
2.3.224	VINEET KR. RAI, PDF	52,200.00		3,988.00	48,212.00
2.3.225	VINOD P SINHA, PDF	1,10,040.00			1,10,040.00
2.3.226	VIPIN KUMAR, PDF	350.00	13,588.00		13,938.00
2.3.227	VISHNU PRIYE	189.00			189.00
2.3.228	VISHNU PRIYE PDF		3,057.00		3,057.00
2.3.229	Vivekanand Mukherjee, PDF	1,000.00			1,000.00
2.3.230	V K GUPTA, PDF	27,773.00			27,773.00
2.3.231	V K Saxena, PDF	98,751.00	1,590.00		1,00,341.00
2.3.232	V K Srivastava, PDF	39,669.00			39,669.00
2.3.233	V KUMAR, PDF	2,444.00			2,444.00
2.3.234	V M S R Murthy, PDF	8,85,087.00	1,62,182.00		10,47,269.00
2.3.235	V.P. Sharma PDF	1,09,821.00			1,09,821.00
2.3.236	Y. R. DHAR PDF	449.00			449.00
2.3.237	Sub Total PDF	169,04,363.61	41,65,917.84	9,11,897.00	201,58,384.45
2.3.238	Sub-total Project (DDF+PDF)	602,73,292.95	161,68,990.68	102,47,859.00	661,94,424.63
2.A	RESERVE & SURPLUS - PLAN	0.00	0.00	0.00	0.00
2.B	RESERVE & SURPLUS - NON PLAN	791,11,614.50	237,61,592.00	1,95,000.00	1026,78,206.50
2.C	RESERVE & SURPLUS - PROJECT	602,73,292.95	161,68,990.68	102,47,859.00	661,94,424.63
2.00	TOTAL (RESERVE & SURPLUS)	1393,84,907.45	399,30,582.68	104,42,859.00	1688,72,631.13

SCHEDULE - III: EARMARKED/ ENDOWMENT FUNDS:**Non Plan:**

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
3.2.1	Basant Scholarship Fund	1,50,163.00	300.00	0.00	1,50,463.00
3.2.2	Benevolent Fund	96,82,655.00	20,30,315.00	35,43,800.00	71,69,170.00
3.2.3	Bihar Chief Minister Relief Fund	1,83,387.00	0.00	1,83,387.00	0.00
3.2.4	Budhwanti Mrig Memo Sch.Fund	69,07,923.00	27,476.00	16,000.00	69,19,399.00
3.2.5	Director's Discretionary Fund	4,267.00	0.00	0.00	4,267.00
3.2.6	Endowment Fund (Corpus fund under B.G Scheme)	2328,86,323.89	1374,63,380.58	896,73,470.00	3006,76,234.47
3.2.7	HOD Discretionary Fund	81,278.00	0.00	0.00	81,278.00
3.2.8	House Building Revolving Fund*	77,41,437.00	0.00	0.00	77,41,437.00
3.2.9	Ishan Rajbanshi Merit Scholars	6,28,166.00	0.00	14,000.00	6,14,166.00
3.2.10	ISM Alumni Award Fund	35,57,271.00	0.00	13,83,563.00	22,03,708.00
3.2.11	ISS Scholarship Fund	1,62,103.00	934.00	6,000.00	1,57,037.00



3.2.12	Late J D M Dhawan M G Med End Fund	1,16,646.00	0.00	0.00	1,16,646.00
3.2.13	Matching grant for Deptt Societies	1,84,800.00	0.00	0.00	1,84,800.00
3.2.14	Mess Subsidy Fund	107,43,235.00	0.00	0.00	107,43,235.00
3.2.15	Platinum Jubilee Fund	2,500.00	0.00	0.00	2,500.00
3.2.16	Student Aid Fund	1,14,487.00	0.00	0.00	1,14,487.00
3.2.17	Student Medical Fund	108,08,423.00	17,78,850.00	9,050.00	125,78,223.00
3.2.18	Student Welfare Fund	2,13,090.00	0.00	0.00	2,13,090.00
3.2.19	Sub-total Non Plan	2831,98,154.89	1413,01,255.58	748,29,270.00	3496,70,140.47

Project: Chair & Scholarship Funds (Earmarked Funds)

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
(A) Scholarship / Award Funds					
3.3.1	ATLAS CAPCO SCH. FUND	4,93,254.00	43,874.00	12,000.00	5,25,128.00
3.3.2	Bhaskar Bhattacharya Memorial Fund	7,02,856.99	56,495.00		7,59,351.99
3.3.3	D N Prasad Memorial Fund	1,02,710.10	8,217.00		1,10,927.10
3.3.4	Inderjeet & Satyawat Bodhwar Scholarship	2,66,980.00			2,66,980.00
3.3.5	Inder Mohan Thapar Foundation Research Award		2,00,000.00		2,00,000.00
3.3.6	ISM AANA Scholarship Award	7,843.00	3,41,825.00	3,35,288.00	14,380.00
3.3.7	Late Mrs. Chitra Bhattacharya Memorial Fund	3,30,000.00		17,000.00	3,13,000.00
3.3.8	L J JHONSON AWARD	2,26,305.00	17,550.00	4,000.00	2,39,855.00
3.3.9	Mata Gurdev Kaur Memorial Fund	56,220.00	4,058.00	5,500.00	54,778.00
3.3.10	Mitali Sen Gold Medal Memorial End. Fund	4,53,620.00		22,900.00	4,30,720.00
3.3.11	NAA Scholarship Fund	7,56,838.00	22,500.00		7,79,338.00
3.3.12	Nirja Sahay Memorial Fund	1,19,080.00		10,000.00	1,09,080.00
3.3.13	N K Mukherjee Memorial Fund	78,511.00	6,261.00		84,772.00
3.3.14	Paritosh & Patkrit End. Fund	2,72,185.00	21,775.00	7,000.00	2,86,960.00
3.3.15	Petroleum Deptt. Endow Fund	3,63,424.16	29,074.00		3,92,498.16
3.3.16	Platinum Jubilee Fund	4,63,528.11	37,082.00		5,00,610.11
3.3.17	Poonam (Khanna) Singh Endowmend Mem. Fund	16,42,063.00	1,50,000.00	50,000.00	17,42,063.00
3.3.18	Prof N L Sharma Mem Fund	2,07,252.00	16,260.00	4,000.00	2,19,512.00
3.3.19	Prof S Srinivasan Mem. Fund	77,941.00	5,915.00	4,000.00	79,856.00
3.3.20	Renuka Rajhans Memorial Gold Medal Fund	3,56,325.00	27,072.00	10,000.00	3,73,397.00
3.3.21	Rollong Scholarship	1,01,639.00	8,131.00		1,09,770.00
3.3.22	S L Sehgal Scholarship	3,86,540.00	30,611.00	4,000.00	4,13,151.00
3.3.23	Smt. Kaushalia Devi Gold Medal	2,27,855.00	17,908.00	4,000.00	2,41,763.00
3.3.24	Smt. Sneh Lata Srivastava Memorial Gold Medal	2,51,471.00	1,521.00	17,000.00	2,35,992.00
3.3.25	Subarna & Shashibhushan Bharracharya Mem End Fund	2,59,174.00	20,734.00		2,79,908.00
3.3.26	Vishesvaraya Ph.D Scheme for Elec. & IT	8,12,500.00	16,20,300.00	16,26,806.00	8,05,994.00
3.3.27	Nagendra Kumar Memorial Award Fund		8,00,000.00	8,00,000.00	0.00
3.3.28	Total Scholarship/Award Funds (A)	90,16,115.36	34,87,183.00	29,33,494.00	95,69,804.36



(B) Chair Funds:					
3.3.29	CIL Chair for Mining Deptt.	229,38,796.44	34,24,115.69	19,66,847.00	243,96,065.13
3.3.30	MoLE Chair Professor Fund	105,79,032.00	10,75,163.00	7,19,177.00	109,35,018.00
3.3.31	NMDC Chair for Open Cast Mining	263,80,673.00	25,15,247.00	23,36,384.00	265,59,536.00
3.3.32	ONGC Chair	101,10,749.58	13,72,790.00	1,80,000.00	113,03,539.58
3.3.33	Rajeev Gandhi Memorial Chair	246,79,098.08	14,10,908.00	17,32,118.00	243,57,888.08
3.3.34	SAIL NMDC Chair (Gr.Rs.5000000)	274,59,080.48	22,25,514.76	15,00,607.00	281,83,988.26
3.3.35	Sandvik Chair Prof. Fund	65,46,178.00	10,05,675.65	19,42,473.00	56,09,380.65
3.3.36	Tata Steel Chair	221,88,896.00	26,86,232.00	2,48,500.00	246,26,628.00
3.3.37	URANIUM CHAIR	122,01,858.00	38,00,105.00	26,67,395.00	133,34,567.00
3.3.38	Total Chair Funds (B)	1630,84,361.58	195,15,751.12	132,93,502.00	1693,08,610.70
3.3.39	Total Chairs & Scholarship Funds (A+B)	1721,00,476.94	230,02,934.12	162,26,996.00	1788,76,415.06
3.A	EARMARKED/ ENDOWMENT FUND - PLAN	0.00	0.00	0.00	0.00
3.B	EARMARKED/ ENDOWMENT FUND - N PLAN	2831,98,154.89	1413,01,255.58	748,29,270.00	3496,70,140.47
3.C	EARMARKED/ ENDOWMENT FUND - PROJECT	1721,00,476.94	230,02,934.12	162,26,996.00	1788,76,415.06
3.00	TOTAL EARMARKED/ ENDOWMENT FUND	4552,98,631.83	1643,04,189.70	910,56,266.00	5285,46,555.53

SCHEDULE - IV: CURRENT LIABILITIES & PROVISIONS**(A) Statutory Liabilities(Plan):**

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
4.1.1	Income Tax	0.00	25,33,748.00	22,10,022.00	3,23,726.00
4.1.2	Income Tax 94 J	0.00	8,27,267.00	7,19,568.00	1,07,699.00
4.1.3	Income Tax - Employees	0.00	23,638.00	23,638.00	0.00
4.1.4	Labour Welfare CESS	0.00	5,70,278.00	4,46,183.00	1,24,095.00
4.1.5	Sales Tax	0.00	22,81,106.00	20,75,549.00	2,05,557.00
4.1.6	Sub Total (A)	0.00	62,36,037.00	54,74,960.00	7,61,077.00

(B) Other Current Liabilities(Plan):

4.1.7	BRS Liability	10,38,568.50	0.00	2,63,243.00	7,75,325.50
4.1.8	Earnest/Security Money-contractors	95,06,187.00	70,43,597.00	44,39,760.00	121,10,024.00
4.1.9	Jasper Hostel	67,500.00	0.00	0.00	67,500.00
4.1.10	Licence Fee	0.00	0.00	0.00	0.00
4.1.11	Miscellaneous Receipt	0.00	0.00	0.00	0.00
4.1.12	Non Plan Control A/c	299,34,465.36	403,13,288.00	27,87,382.00	674,60,371.36
4.1.13	Non Plan Control Endowment A/c	113,39,254.00	141,15,917.00	113,39,254.00	141,15,917.00
4.1.14	PF Control Account	0.00	0.00	0.00	0.00
4.1.15	Project Control Account	200,61,792.19	8,95,494.00	49,45,470.00	160,11,816.19
4.1.16	Room Rent	0.00	0.00	0.00	0.00
4.1.17	Sub-total (B)	719,47,767.05	623,68,296.00	237,75,109.00	1105,40,954.05
4.1.18	Total Current Liabilities & Provisions (A+B)	719,47,767.05	686,04,333.00	292,50,069.00	1113,02,031.05

**(A) Statutory Liabilities(Non-Plan):**

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
4.2.1	Income Tax (TDS) - Contractors	-1,88,510.00	35,44,363.00	29,71,691.00	3,84,162.00
4.2.2	Income Tax (TDS) - Contractors- Endowment	0.00	6,61,970.00	6,61,970.00	0.00
4.2.3	Income Tax (TDS) - Contr-Project	0.00	1,26,146.00	1,26,146.00	0.00
4.2.4	Income Tax (TDS) - Emplo-Project	0.00	149,64,983.00	149,64,983.00	0.00
4.2.5	Income Tax (TDS) - Employees	0.00	740,61,249.00	740,61,249.00	0.00
4.2.6	Income Tax (TDS) - Emplo-Plan	0.00	2,500.00	2,500.00	0.00
4.2.7	Income Tax (TDS) - Guest Faculty	0.00	5,69,936.00	5,42,376.00	27,560.00
4.2.8	Income Tax (TDS) - Plan	0.00	22,10,022.00	22,10,022.00	0.00
4.2.9	Income Tax (TDS) - Plan-Profen	0.00	6,91,741.00	6,91,741.00	0.00
4.2.10	Income Tax (TDS) - TEQIP II	0.00	0.00	0.00	0.00
4.2.11	Income Tax (TDS) - U/S I	0.00	0.00	0.00	0.00
4.2.12	Jharkhand State Prof. Tax	0.00	0.00	0.00	0.00
4.2.13	Labour Welfare	0.00	2,74,118.00	2,19,488.00	54,630.00
4.2.14	Sales Tax @4%		11,69,997.00	10,64,677.00	1,25,320.00
4.2.15	Sales Tax - Plan	0.00	77,187.00	77,187.00	0.00
4.2.16	Sales Tax - Project	0.00	321.00	321.00	0.00
4.2.17	Service Tax	9,479.00	16,34,270.00	16,34,270.00	9,479.00
4.2.18	Service Tax-Proj	0.00	179,05,434.00	179,05,434.00	0.00
4.2.19	Sub Total (A)	-1,79,031.00	1179,14,237.00	1171,34,055.00	6,01,151.00

(B) Other Liabilities(Non-Plan):

4.2.20	Adv. for Gen. Parlia Ele. 2009	1,200.00			1,200.00
4.2.21	ADVANCE FEE	5,22,094.00			5,22,094.00
4.2.22	Advance Fee From IIT-JEE	42.00			42.00
4.2.23	Alumni Subscription	22,93,500.00	20,89,400.00	32,00,400.00	11,82,500.00
4.2.24	ANRENT	1,000.00			1,000.00
4.2.25	B R S Liability	15,96,377.28	66,59,088.01	3,04,241.24	79,51,224.05
4.2.26	Backward Scholarship	33,570.00			33,570.00
4.2.27	Basant Subscription	1,64,450.00	16,59,300.00	16,74,525.00	1,49,225.00
4.2.28	Bihar SC/ST Student Schol	49,560.00			49,560.00
4.2.29	CanBank, SDL Br. Loan to Employees		95,94,895.00	95,94,895.00	0.00
4.2.30	Central Sector Scholarship for SC	-1,12,752.00	6,46,031.00	7,18,960.00	-1,85,681.00
4.2.31	Central Sector Scholarship for ST STUDENT		8,42,500.00	8,42,500.00	0.00
4.2.32	Children Act. Centre Subscript	5,960.00	1,58,200.00	1,58,950.00	5,210.00
4.2.33	Court Attachment Deduction		27,000.00	27,000.00	0.00
4.2.34	CPF Subscription & Loan Recovery	0.00	134,30,100.00	134,30,100.00	0.00
4.2.35	Cultural, Scientific & Literary Society	9,882.00			9,882.00
4.2.36	Cyber Society	20,504.00			20,504.00
4.2.37	DCPS SUBSCRIPTION	5,90,293.00	281,66,084.00	283,67,674.00	3,88,703.00
4.2.38	DST/INSPIRE/SCHOLARSHIP	-1,39,506.00			-1,39,506.00
4.2.39	EARNEST MONEY DEPOSIT	160,12,107.00	159,37,071.00	132,04,730.00	187,44,448.00



IIT(ISM) DHANBAD ANNUAL ACCOUNTS F.Y. 2016-17

4.2.40	Executive MBA	27,51,341.00	31,13,672.00	29,38,341.00	29,26,672.00
4.2.41	GIS Premium	90,454.00	27,71,264.00	25,87,607.00	2,74,111.00
4.2.42	GPF Subscription & Loan Recovery	500.00	427,20,400.00	427,20,400.00	500.00
4.2.43	Hostel Security Deposit	123,73,500.00			123,73,500.00
4.2.44	Institute Amenities Deposit		19,93,000.00	47,000.00	19,46,000.00
4.2.45	ISM 89 Silver Jubilee Fund	28,50,055.00	12,34,706.00	40,84,761.00	0.00
4.2.46	JASPER HOSTEL	49,500.00			49,500.00
4.2.47	IIIF Kolkata Mech. Engg	10,91,967.00	19,20,000.00	16,16,382.00	11,93,605.00
4.2.48	IIIF Kolkata ECE	4,75,599.00	5,70,000.00	5,71,900.00	4,73,699.00
4.2.49	IIIF Kolkata Elec. Engg	16,80,002.00	31,94,008.00	19,83,548.00	26,90,462.00
4.2.50	IIIF Kolkata CSE	10,37,684.00	14,17,449.00	10,66,819.00	13,88,314.00
4.2.51	Liability Towards Convocation Deceased Labours	15,43,320.00			15,43,320.00
4.2.52	Library Security Deposit		49,82,500.00	1,15,000.00	48,67,500.00
4.2.53	Library Security	8,51,687.00			8,51,687.00
4.2.54	LIC Premium	31,010.00	59,57,704.00	59,57,691.00	31,023.00
4.2.55	Misc. Receipts (Liab)	3,20,037.00	26,89,109.00	24,25,007.00	5,84,139.00
4.2.56	Muquabala'07	1,894.00			1,894.00
4.2.57	Music Club	14,420.00			14,420.00
4.2.58	N E C Merit Scholarship	10,600.00			10,600.00
4.2.59	Outside Scholarship Control A/c	22,09,470.00	18,12,579.00	15,59,220.00	24,62,829.00
4.2.60	P.F. Control A/c	25,76,087.00	71,43,492.00	46,88,180.00	50,31,399.00
4.2.61	Photographic Society	9,548.00			9,548.00
4.2.62	Post Office CTD/RD		3,97,300.00	3,97,300.00	0.00
4.2.63	PRAKARM 11	723.00			723.00
4.2.64	Relief Fund(DEATH BENIFIT PAYABLE)	64,593.00			64,593.00
4.2.65	Remuneration of GJLT/ Penman	-16,250.00			-16,250.00
4.2.66	SBI Loan Recovery		7,030.00	7,030.00	0.00
4.2.67	Scolomin Club	5,400.00	3,06,750.00	3,11,450.00	700.00
4.2.68	SECURITY DEPOSIT	89,22,955.00	61,56,008.00	65,99,707.00	84,79,256.00
4.2.69	SRIJAN FUND	33,000.00			33,000.00
4.2.70	Staff Recreation Club		3,39,100.00	3,39,100.00	0.00
4.2.71	STUDENT CAUTION MONEY	487,90,951.00	33,95,400.00	101,51,980.00	420,34,371.00
4.2.72	Student Insurance Scheme	36,54,810.00	67,13,984.00	54,21,416.00	49,47,378.00
4.2.73	Student Uniform Deposit	45,09,827.00	32,76,600.00	4,80,870.00	73,05,557.00
4.2.74	Students Loan		19,200.00	19,200.00	0.00
4.2.75	Vidhan Sabha Election	4,400.00			4,400.00
4.2.76	Unpaid Liability	1,77,943.00		1,500.00	1,76,443.00
4.2.77	Lokshabha Election -2014	400.00			400.00
4.2.78	Panchayat Election	17,600.00			17,600.00
4.2.79	Sub Total (B)	1171,83,328.28	1813,40,924.01	1678,17,384.24	1307,06,868.05
(C) Outstanding Expenses(Non-Plan):					
4.2.80	Outstanding Expenses	1,00,000.00	23,37,269.00	1,00,000.00	23,37,269.00
4.2.81	Outstanding Pay & Allowance	434,89,552.00	466,45,659.00	434,89,552.00	466,45,659.00
4.2.82	Sub Total (C)	435,89,552.00	489,82,928.00	435,89,552.00	489,82,928.00
4.2.83	Total Current Liabilities & Provisions (A+B+C)	1605,93,849.28	3482,38,089.01	3285,40,991.24	1802,90,947.05



Project: Current Liabilities & Provisions

(A) ISM R&D PROJECTS

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
4.3.1	FRS(100)/2015-16/APH		13,50,000.00	38,357.00	13,11,643.00
4.3.2	FRS(101)/2016-17/AGP		8,30,000.00		8,30,000.00
4.3.3	FRS(10)/2010-2011/AC	7,218.00			7,218.00
4.3.4	FRS(102)/2016-17/AGP		10,00,000.00		10,00,000.00
4.3.5	FRS(103)/2016-17/AGP		10,00,000.00		10,00,000.00
4.3.6	FRS(104)/2016-17/CE		10,00,000.00		10,00,000.00
4.3.7	FRS(105)/2016-17/CE		9,70,000.00		9,70,000.00
4.3.8	FRS(106)/2016-17/CE		9,90,000.00		9,90,000.00
4.3.9	FRS(107)/2016-17/PE		9,00,000.00		9,00,000.00
4.3.10	FRS(108)/2016-17/ME		10,00,000.00		10,00,000.00
4.3.11	FRS(109)/2016-17/ESE		10,00,000.00	2,58,255.00	7,41,745.00
4.3.12	FRS(11)/2010-2011/AC	2,574.00			2,574.00
4.3.13	FRS(1)/2009-10/1/ESE	1,15,491.00			1,15,491.00
4.3.14	FRS(12)/2010-2011/AC	8,85,970.00			8,85,970.00
4.3.15	FRS(13)/2010-2011/AGL	1,800.00			1,800.00
4.3.16	FRS(14)/2010-2011/AGP	1,28,290.00			1,28,290.00
4.3.17	FRS(15)/2010-2011	1,30,066.00			1,30,066.00
4.3.18	FRS(16)/2010-2011	3,29,319.00		48.00	3,29,271.00
4.3.19	FRS(17)/2010-2011/AM	26,048.00			26,048.00
4.3.20	FRS(18)/2010-2011/APH	34,969.00		7,360.00	27,609.00
4.3.21	FRS(19)/2010-2011/APH	9,04,145.00			9,04,145.00
4.3.22	FRS(20)/2010-2011/EE	232.00			232.00
4.3.23	FRS(21)/2010-2011/EE	2,07,470.00			2,07,470.00
4.3.24	FRS(2)/2009-10/2/AC	4,928.00			4,928.00
4.3.25	FRS(22)/2010-2011/ECE	389.00			389.00
4.3.26	FRS(23)/2010-2011/ESE	1,659.00			1,659.00
4.3.27	FRS(25)/2010-2011/ME&MME	2,19,971.00			2,19,971.00
4.3.28	FRS(26)/2010-2011/ME &MME	59,465.00		25,205.00	34,260.00
4.3.29	FRS(27)/2010-2011/MS	4,32,728.00			4,32,728.00
4.3.30	FRS(28)/2010-2011/PE	43,480.00			43,480.00
4.3.31	FRS(29)/2010-2011/PE	35,448.00			35,448.00
4.3.32	FRS(30)/2012-13/AC	8,21,071.00		6,23,775.00	1,97,296.00
4.3.33	FRS(31)/2012-13/AC	31,934.00		11,404.00	20,530.00
4.3.34	FRS(3)/2009-10/3/AC	22,857.00			22,857.00
4.3.35	FRS(32)/2012-13/AC	9,751.00			9,751.00
4.3.36	FRS(33)/2012-13/AM	2,75,100.00			2,75,100.00
4.3.37	FRS(34)/2012-13/APH	3,45,899.00			3,45,899.00
4.3.38	FRS(35)/2012-13/EE	68,915.00		58,800.00	10,115.00
4.3.39	FRS(36)/2012-13/EE	3,00,000.00		2,94,780.00	5,220.00
4.3.40	FRS(37)/2012-13/EE	3,87,000.00		1,77,450.00	2,09,550.00
4.3.41	FRS(38)/2012-13/ECE	2,64,500.00			2,64,500.00
4.3.42	FRS(39)/2012-13/ESE	4,00,148.00		1,64,608.00	2,35,540.00
4.3.43	FRS(40)/2012-13/ESE	3,55,368.00		2,86,650.00	68,718.00
4.3.44	FRS(41)/2012-13/ME	4,86,971.00		30,701.00	4,56,270.00



4.3.45	FRS(4)/2009-10(4)/APH	86,384.00			86,384.00
4.3.46	FRS(42)/2012-13/PE	1,37,145.00		1,00,006.00	37,139.00
4.3.47	FRS(43)/13-14/AC	2,67,515.00		43,500.00	2,24,015.00
4.3.48	FRS(44)/13-14/AC	89,834.00		89,767.00	67.00
4.3.49	FRS(45)/13-14/AC	1,270.00		1,200.00	70.00
4.3.50	FRS(46)/13-14/AGL	1,08,247.00		29,113.00	79,134.00
4.3.51	FRS(47)/13-14/AGL	3,07,749.00		69,576.00	2,38,173.00
4.3.52	FRS(48)/13-14/AGL	5,40,000.00		49,765.00	4,90,235.00
4.3.53	FRS(49)/13-14/AGP	2,55,862.00			2,55,862.00
4.3.54	FRS(50)/13-14/APH	76,630.00		71,774.00	4,856.00
4.3.55	FRS(51)/13-14/APH	8,53,646.00			8,53,646.00
4.3.56	FRS(5)/2009-10/5/EE	1,168.00			1,168.00
4.3.57	FRS(52)/13-14/APH	4,72,352.00		3,64,047.00	1,08,305.00
4.3.58	FRS(53)/13-14/APH	3,51,473.00		15,000.00	3,36,473.00
4.3.59	FRS(54)/13-14/APH	43,833.00		43,032.00	801.00
4.3.60	FRS(55)/13-14/APH	1,26,803.00		1,18,125.00	8,678.00
4.3.61	FRS(56)/13-14/CHE	5,87,196.00		21,814.00	5,65,382.00
4.3.62	FRS(57)/13-14/CHE	2,50,326.00		1,48,237.00	1,02,089.00
4.3.63	FRS(58)/13-14/CHE	4,50,361.00		2,76,338.00	1,72,023.00
4.3.64	FRS(59)/13-14/CHE	4,13,434.00		3,88,851.00	24,583.00
4.3.65	FRS(60)/13-14/CHE	5,14,333.00		3,95,230.00	1,19,103.00
4.3.66	FRS(61)/13-14/CHE	7,15,220.00		6,12,230.00	1,02,990.00
4.3.67	FRS(6)/2009-10/6/ME&MME	3,00,000.00			3,00,000.00
4.3.68	FRS(62)/13-14/CE	5,24,877.00		5,24,877.00	0.00
4.3.69	FRS(63)/13-14/ECE	27,942.00		24,000.00	3,942.00
4.3.70	FRS(64)/13-14/ECE	37,908.00		19,955.00	17,953.00
4.3.71	FRS(65)/13-14/FME	6,55,425.00			6,55,425.00
4.3.72	FRS(66)/13-14/FME	8,01,358.00		7,88,192.00	33,166.00
4.3.73	FRS(67)/13-14/FME	4,65,070.00		91,346.00	3,73,724.00
4.3.74	FRS(68)/13-14/FME	80,860.00		12,630.00	68,230.00
4.3.75	FRS(69)/13-14/MS	2,03,312.00		14,710.00	1,88,602.00
4.3.76	FRS(70)/13-14/MECH	25,996.00			25,996.00
4.3.77	FRS(71)/13-14/MECH	1,940.00			1,940.00
4.3.78	FRS(72)/13-14/ME	1,16,753.00			1,16,753.00
4.3.79	FRS(73)/2014-15/AC	10,25,018.00		94,003.00	9,31,015.00
4.3.80	FRS(74)/2014-15/APH	10,80,100.00		10,68,675.00	11,425.00
4.3.81	FRS(75)/2014-15/APH	6,25,593.00		4,29,264.00	1,96,329.00
4.3.82	FRS(76)/2014-15/CHE	11,12,100.00		10,69,590.00	42,510.00
4.3.83	FRS(77)/2014-15/CHE	6,10,036.00		2,69,406.00	3,40,630.00
4.3.84	FRS(78)/2014-15/CE	1,33,589.00		5,75,718.00	-4,42,129.00
4.3.85	FRS(79)/2014-15/CE	9,50,000.00		8,47,172.00	1,02,828.00
4.3.86	FRS(80)/2014-15/CE	8,80,000.00		7,11,025.00	1,68,975.00
4.3.87	FRS(81)/2014-15/EE	10,00,000.00			10,00,000.00
4.3.88	FRS(8)/2009-10/8/CSE	1,95,197.00			1,95,197.00
4.3.89	FRS(82)/2014-15/EE	4,41,500.00		4,03,167.00	38,333.00
4.3.90	FRS(83)/2014-15/ECE	6,34,208.00			6,34,208.00
4.3.91	FRS(84)/2014-15/ECE	10,00,000.00			10,00,000.00
4.3.92	FRS(85)/2014-15/ECE	6,75,000.00			6,75,000.00



4.3.93	FRS(86)/2014-15/ESE	8,61,642.00		3,83,200.00	4,78,442.00
4.3.94	FRS(87)/2014-15/FME	8,74,450.00		27,387.00	8,47,063.00
4.3.95	FRS(88)/2014-15/HSS	2,25,000.00			2,25,000.00
4.3.96	FRS(89)/2014-15/ME	7,17,886.00	82,114.00	14,950.00	7,85,050.00
4.3.97	FRS (90)/2015-16/CE		10,15,000.00	7,974.00	10,07,026.00
4.3.98	FRS(91)/2015-16/CE		10,20,000.00	9,82,149.00	37,851.00
4.3.99	FRS(9)/2009-10/9/CSE	1,50,145.00			1,50,145.00
4.3.100	FRS(92)/2015-16/CE		9,80,000.00	4,96,415.00	4,83,585.00
4.3.101	FRS(93)/2015-16/ME		13,50,000.00		13,50,000.00
4.3.102	FRS(94)/2015-16/MECH. ENGG.		9,60,000.00	3,71,839.00	5,88,161.00
4.3.103	FRS(95)/2015-16/MECH. ENGG.		8,00,000.00		8,00,000.00
4.3.104	FRS(96)/2015-16/MECH. ENGG.		10,80,000.00		10,80,000.00
4.3.105	FRS(97)/2015-16/MECH. ENGG.		9,35,000.00	8,60,000.00	75,000.00
4.3.106	FRS(98)/2015-16/MECH. ENGG.		9,00,000.00	8,12,794.00	87,206.00
4.3.107	FRS(99)/2015-16/MME		9,35,000.00	7,75,000.00	1,60,000.00
4.3.108	Sub-total (ISM FRS PROJECTS)	304,24,860.00	200,97,114.00	164,72,436.00	340,49,538.00

(B) R&D Projects:

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
4.3.109	AICTE/NDF/NK/07	2,17,012.00			2,17,012.00
4.3.110	AICTE/NDF/Shankar Purby/MS/04	45,000.00			45,000.00
4.3.111	CIL/410/AGP/2014-15	58,40,130.00		49,65,168.00	8,74,962.00
4.3.112	CIL/461/2015-16/MINING ENGG.		410,79,739.00	80,537.00	409,99,202.00
4.3.113	CIL/474/CHEM. ENGG/2016-17		200,00,000.00	36,182.00	199,63,818.00
4.3.114	CIL/479/ME/2016-17		150,00,000.00	3,750.00	149,96,250.00
4.3.115	CME-4079	4,45,269.00			4,45,269.00
4.3.116	CME-ENVIS	31,624.00	14,85,754.00	11,39,258.00	3,78,120.00
4.3.117	CONS/3237/2016-17		1,97,119.00	1,97,119.00	0.00
4.3.118	CONS/3238/2016-17		6,41,000.00	10,332.00	6,30,668.00
4.3.119	CPR/2016-17/492/ME		80,13,000.00	16,749.00	79,96,251.00
4.3.120	CSIR/029	0.40			0.40
4.3.121	CSIR/09/085/0109/EMR-1		3,55,200.00	3,54,764.00	436.00
4.3.122	CSIR/09/085/0111/2014-EMR-1		5,06,667.00	5,00,000.00	6,667.00
4.3.123	CSIR/09/085/0114/2015-EMR-1		6,88,926.00	3,01,196.00	3,87,730.00
4.3.124	CSIR/09/085/013/EMR-1		5,86,667.00	5,86,667.00	0.00
4.3.125	CSIR/09/85(102)2009-EMR-1	645.00			645.00
4.3.126	CSIR/108/2012-EMR-I		8,23,067.00	4,03,200.00	4,19,867.00
4.3.127	CSIR/109/2012-EMR-I	800.00			800.00
4.3.128	CSIR/110/2013 EMR-1	533.00	8,19,053.00	3,96,386.00	4,23,200.00
4.3.129	CSIR/112/EMRI	5,698.00			5,698.00
4.3.130	CSIR/116/2016-EMR-I		2,06,451.00	1,68,548.00	37,903.00
4.3.131	CSIR/13/EMR	673.00		673.00	0.00
4.3.132	CSIR/250/AC	5,41,645.00			5,41,645.00
4.3.133	CSIR/314/CSE/12-13	3,00,183.00		3,00,183.00	0.00
4.3.134	CSIR/326/2012-13/PE	6,084.00		6,084.00	0.00
4.3.135	CSIR/327/ME/2012-13	52,90,564.00	19,75,500.00	25,77,809.00	46,88,255.00
4.3.136	CSIR/362/AM/12-13	1,74,983.00	1,92,650.00	2,49,268.00	1,18,367.00



4.3.137	CSIR/369/PE/2013-14	2,22,485.00	3,00,959.00	4,92,077.00	31,367.00
4.3.138	CSIR/371/AC/13-14	2,06,181.00	3,88,111.00	3,21,215.00	2,72,077.00
4.3.139	CSIR/380/APH/2013-14	9,90,014.00		8,60,745.00	1,29,269.00
4.3.140	CSIR/408/2014-15/FME		3,74,583.00		3,74,583.00
4.3.141	CSIR/430/15-16/AM	2,39,573.00	2,35,364.00	3,58,214.00	1,16,723.00
4.3.142	CSIR/467/A. PHYSICS/2016-17		8,85,000.00	1,29,379.00	7,55,621.00
4.3.143	CSIR/468/AM/2016-17		5,43,333.00	3,39,589.00	2,03,744.00
4.3.144	CSIR/469/AM/2016-17		5,43,333.00	89,133.00	4,54,200.00
4.3.145	CSIR/470/2016-17/EE		11,60,000.00	1,65,420.00	9,94,580.00
4.3.146	DAE/375/AGL/2013-14	3,06,885.00		2,000.00	3,04,885.00
4.3.147	DAE/386/APH/2014-15	10,40,417.00		92,091.00	9,48,326.00
4.3.148	DAE/473/ME/2016-17		15,51,250.00	1,10,781.00	14,40,469.00
4.3.149	DBT/440/FME/2015-16	14,16,859.00		10,62,216.00	3,54,643.00
4.3.150	DEPT OF SCIENCE & ENGINEERING (GOI)	18,29,448.00		17,12,000.00	1,17,448.00
4.3.151	DRDO/401/2014-15/ECE	12,47,713.00	69,560.00	12,49,752.00	67,521.00
4.3.152	DRDO/431/15-16/CSE	10,02,812.00	13,965.00	8,31,128.00	1,85,549.00
4.3.153	DRDO/437/MECH. ENGG./15-16	73,50,268.00	5,00,000.00	6,61,290.00	71,88,978.00
4.3.154	DRDO/444/MECH./2015-16	3,84,728.00	2,24,978.00	4,10,759.00	1,98,947.00
4.3.155	DRDO/484/CSE/2016-17		2,50,000.00	2,05,110.00	44,890.00
4.3.156	DRDO/491/AC/2016-17		21,80,000.00	30,000.00	21,50,000.00
4.3.157	DST/14/MATHS/15-16	2,12,250.00		75,000.00	1,37,250.00
4.3.158	DST/15/MS/15-16		75,000.00	75,000.00	0.00
4.3.159	DST/161/ME&MME	1,94,409.00			1,94,409.00
4.3.160	DST/16/AGL/15-16	2,93,000.00		1,47,465.00	1,45,535.00
4.3.161	DST/19/AM/16-17		5,53,880.00	5,53,880.00	0.00
4.3.162	DST/20/APH/2016-17		1,78,988.00	1,78,988.00	0.00
4.3.163	DST/214/AC/07-08	3,393.00			3,393.00
4.3.164	DST/216/ME/07-08	95,341.00			95,341.00
4.3.165	DST/21/MATHS/2016-17		3,88,500.00	4,14,944.00	-26,444.00
4.3.166	DST/223/AM/08-09	86,307.00			86,307.00
4.3.167	DST/235/E&I/08-09	1,08,973.00		1,08,973.00	0.00
4.3.168	DST/23/AGP/2016-17		6,30,000.00	5,68,971.00	61,029.00
4.3.169	DST/244/MEMME/08-09	5,810.00			5,810.00
4.3.170	DST/269/AP/10-11	2,978.00			2,978.00
4.3.171	DST/274/AM/10-11	24,178.00			24,178.00
4.3.172	DST/276/AGL/10-11	1,60,000.00			1,60,000.00
4.3.173	DST/280/AGP/10-11	34,48,722.00		27,804.00	34,20,918.00
4.3.174	DST/281/AC/10-11	16,079.00			16,079.00
4.3.175	DST/299/2011-12/APH	3,27,626.00			3,27,626.00
4.3.176	DST/301/AGL/11-12	634.00			634.00
4.3.177	DST/303/2012-13/AGL	1,13,026.00	34,782.00	39,511.00	1,08,297.00
4.3.178	DST/315/AC/12-13	2,868.00			2,868.00
4.3.179	DST/324/ECE/12-13	32,335.00	10,053.00	42,388.00	0.00
4.3.180	DST/325/2012-13/PE	1,99,367.00		1,99,367.00	0.00
4.3.181	DST/339/ME&MME/2013-14	4,46,045.00	16,113.00	4,44,031.00	18,127.00
4.3.182	DST/344/ECE/2013-14	17,59,904.00	3,26,472.00	14,42,983.00	6,43,393.00
4.3.183	DST/348/2013-14/AC	9,93,612.00	1,766.00	9,95,378.00	0.00
4.3.184	DST/349/13-14/MME	4,03,531.00		4,03,531.00	0.00



4.3.185	DST/350/2013-14/PE	7,35,471.00		7,04,650.00	30,821.00
4.3.186	DST/351/13-14/AGL	2,47,966.00		5,095.00	2,42,871.00
4.3.187	DST/352/AGP/2013-14	80,403.00	4,00,000.00	4,41,071.00	39,332.00
4.3.188	DST/356/13-14/AC	1,60,924.00	9,58,015.00	9,16,440.00	2,02,499.00
4.3.189	DST/358/2013-14/AGL	1,25,265.00	2,50,000.00	3,24,534.00	50,731.00
4.3.190	DST/359/APPL. PHYSICS/13-14	2,60,914.00		19,005.00	2,41,909.00
4.3.191	DST/360/MECH. ENGG	3,51,579.00		99,428.00	2,52,151.00
4.3.192	DST/361/AGL (FIST)/2013-14	40,46,970.00	5,09,125.00	31,00,331.00	14,55,764.00
4.3.193	DST/363/CE	3,20,880.00		2,54,320.00	66,560.00
4.3.194	DST/364/2013-14/AGP	2,75,078.00	5,909.00	1,05,924.00	1,74,063.00
4.3.195	DST/365/2013-14/AGP	2,80,150.00		35,687.00	2,44,463.00
4.3.196	DST/366/13-14/AM	2,94,833.00		2,94,833.00	0.00
4.3.197	DST/368/MECH/2013-14	9,41,953.00	4,50,000.00	7,02,414.00	6,89,539.00
4.3.198	DST/370/AC/2013-14	3,39,243.00		3,39,240.00	3.00
4.3.199	DST/372/2013-14/AC(FIST)	149,79,474.00	4,63,594.00	16,705.00	154,26,363.00
4.3.200	DST/373/APPL. PHY./13-14	11,87,552.00		10,18,540.00	1,69,012.00
4.3.201	DST/374/2013-14/AC	1,16,144.00			1,16,144.00
4.3.202	DST/376/APH/13-14	65,33,529.00	2,33,289.00	52,33,080.00	15,33,738.00
4.3.203	DST/378/APPL. PHY/13-14	3,19,752.00		2,71,803.00	47,949.00
4.3.204	DST/379/A PHYSICS/13-14	17,96,647.00		2,39,941.00	15,56,706.00
4.3.205	DST/381/2013-14/ESE	5,98,774.00	5,00,000.00	7,50,663.00	3,48,091.00
4.3.206	DST/382/APPLIED PHYSICS	9,00,000.00		9,06,294.00	-6,294.00
4.3.207	DST/382/A PHYSICS/2013-14	5,16,793.00	9,00,000.00	10,80,015.00	3,38,778.00
4.3.208	DST/383/APPL. PHYSICS/13-14	5,00,308.00			5,00,308.00
4.3.209	DST/384/AGP/14-16	3,70,809.00	6,07,323.00	8,64,590.00	1,13,542.00
4.3.210	DST/385/APH/14-15	2,36,413.00	7,00,000.00	6,55,764.00	2,80,649.00
4.3.211	DST/387/2014-15/AC	-44,680.00	8,00,000.00	4,12,893.00	3,42,427.00
4.3.212	DST/388/2014-15/AC	26,762.00	3,39,735.00	3,66,384.00	113.00
4.3.213	DST/389/FME/2014-15	11,07,697.00		11,03,285.00	4,412.00
4.3.214	DST/390/14-15/APH	20,78,705.00	5,00,000.00	24,45,989.00	1,32,716.00
4.3.215	DST/391/ME/2014-15	1,90,086.00		1,61,555.00	8,531.00
4.3.216	DST/392/14-15/AC	10,55,945.00	3,12,252.00	13,68,197.00	0.00
4.3.217	DST/393/AM (FIST)/2014-15	7,73,798.00	43,168.00	6,22,779.00	1,94,187.00
4.3.218	DST/394/14-15/AC	15,68,292.00	3,17,741.00	17,12,907.00	1,73,126.00
4.3.219	DST/395/MS/14-15	44,564.00	1,09,544.00	44,425.00	1,09,693.00
4.3.220	DST/398/AC/14-15	28,30,193.00	6,00,000.00	31,84,954.00	2,45,239.00
4.3.221	DST/403/PE/2014-15	82,00,000.00		22,04,515.00	59,95,485.00
4.3.222	DST/404/AGL/14-15	41,913.00	6,00,472.00	3,16,246.00	3,26,139.00
4.3.223	DST/405/MECH/2014-15	14,58,764.00		8,58,073.00	6,00,711.00
4.3.224	DST/409/2014-15/AGL	2,75,337.00	9,00,000.00	9,89,412.00	1,85,925.00
4.3.225	DST/415/AC	17,84,990.00	7,75,162.00	6,98,956.00	18,61,196.00
4.3.226	DST/418/AC	2,89,152.00	4,23,840.00	6,48,889.00	64,103.00
4.3.227	DST/420/15-16/CSE	10,60,636.00		10,21,447.00	39,189.00
4.3.228	DST/421/2015-16/A. PHYSICS	10,64,285.00		3,83,196.00	6,81,089.00
4.3.229	DST/422/2015-16/ AC	29,43,003.00	3,04,984.00	5,31,059.00	27,16,928.00
4.3.230	DST/423/AGL/2015-16	11,52,384.00		54,274.00	10,98,110.00
4.3.231	DST/427/2015-16/AM	6,08,500.00		2,32,539.00	3,75,961.00
4.3.232	DST/429/ESE/15-16	13,74,716.00	15,466.00	4,60,175.00	9,30,007.00



4.3.233	DST/432/15-16/ECE	19,23,700.00		16,92,018.00	2,31,682.00
4.3.234	DST/432/2015-16/APH	9,79,660.00		2,94,381.00	6,85,479.00
4.3.235	DST/433/2015-16/APPL. PHY.	16,39,932.00	48,284.00	59,904.00	16,28,312.00
4.3.236	DST/442/ECE/2015-16	1,00,322.00		58,612.00	41,710.00
4.3.237	DST/445/15-16/ME	25,723.00	72,647.00	98,370.00	0.00
4.3.238	DST/446/MME/15-16	18,40,000.00		1,900.00	18,38,100.00
4.3.239	DST /447/AGL/128/15-16	28,50,000.00		9,27,422.00	19,22,578.00
4.3.240	DST/448/2015-16/CHEM ENGG	14,88,333.00		14,72,735.00	15,588.00
4.3.241	DST/452/SERB/AGL/15-16	28,65,000.00		7,44,112.00	21,20,888.00
4.3.242	DST/454/MECHANICAL/2015	17,84,666.00		9,967.00	17,74,699.00
4.3.243	DST/455/MECH ENGG/2015-16	22,80,932.00		3,04,801.00	19,76,131.00
4.3.244	DST/457/AGL/2015-16	14,30,000.00		4,39,887.00	9,90,113.00
4.3.245	DST/458/ELECTRICAL ENGG	20,60,750.00		19,87,393.00	73,357.00
4.3.246	DST/459/CIVIL ENGG/2015-16	14,56,666.00		44,333.00	14,12,333.00
4.3.247	DST/460/CIVIL ENGG/2015-16	18,25,733.00		16,05,398.00	2,20,335.00
4.3.248	DST/462/ESE/2016-17		5,04,500.00	4,97,712.00	6,786.00
4.3.249	DST/463/ME/2016-17		37,10,000.00	6,27,846.00	30,82,154.00
4.3.250	DST/466/16-17/CE		15,62,000.00	1,71,556.00	13,90,444.00
4.3.251	DST/475/AC/2016-17		24,33,000.00	2,74,245.00	21,58,755.00
4.3.252	DST/477/PE/2016-17		31,75,195.00	1,42,407.00	30,32,788.00
4.3.253	DST/478/AC/2016-17		31,83,200.00	13,249.00	31,69,951.00
4.3.254	DST/479/inspire Fellowship/2012	1,80,303.00		1,80,303.00	0.00
4.3.255	DST/480/MME/2016-17		29,51,048.00	1,30,863.00	28,20,185.00
4.3.256	DST/481/AGL/2016-17		1,23,048.00	1,23,048.00	0.00
4.3.257	DST/482/AM/16-17		5,87,533.00		5,87,533.00
4.3.258	DST/483/MECH. ENG./2016-17		21,50,670.00	3,50,907.00	17,99,763.00
4.3.259	DST/484/MECH. ENGG.		10,02,860.00	94,199.00	9,08,661.00
4.3.260	DST/485/AM/2016-17		5,87,533.00	71,424.00	4,96,109.00
4.3.261	DST/486/inspire/AGP/2016-17		7,00,000.00	96,835.00	6,03,165.00
4.3.262	DST/487/APH/2016-17		42,91,696.00	39,249.00	42,52,447.00
4.3.263	DST/488/MECH. ENGG./2016-17		24,96,000.00	1,71,759.00	23,24,241.00
4.3.264	DST/489/ME/2016-17		33,50,340.00	2,54,020.00	30,96,320.00
4.3.265	DST/490/MECH. ENGG./2016-17		20,96,950.00	1,66,739.00	19,30,211.00
4.3.266	DST/496/2016-17/AC		20,23,000.00	2,54,083.00	17,68,917.00
4.3.267	DST/497/CE/2016-17 (SERB)		18,40,000.00	1,06,766.00	17,33,234.00
4.3.268	DST/498/ESE/2016-17		1,09,990.00		1,09,990.00
4.3.269	DST/499/2016-17/ECE		37,10,000.00	1,86,850.00	35,23,150.00
4.3.270	DST/501/2016-17/AM		2,00,000.00		2,00,000.00
4.3.271	DST/505/2016-17/ESE		35,03,681.00		35,03,681.00
4.3.272	DST/509/AC/2016-17		9,12,440.00		9,12,440.00
4.3.273	DST(FIST)/140/2016-17/471/ESE		83,00,000.00		83,00,000.00
4.3.274	DST/INSPIRE		103,57,531.00	57,17,531.00	46,40,000.00
4.3.275	DST/inspire Faculty/2013-17	2,30,215.00	4,44,785.00	3,44,900.00	3,30,100.00
4.3.276	DST/ inspire Faculty Award AGL/14	4,26,836.00	9,27,224.00	12,65,058.00	89,002.00
4.3.277	DST/INSPIRE FACULTY WARD 2014/LSPA-25	7,95,119.00	11,57,044.00	16,83,755.00	2,68,408.00
4.3.278	DST/INSPIRE FELLOWSHIP/ M MAHANTY / 2016-17		3,80,000.00	1,77,419.00	2,02,581.00
4.3.279	DST/SCIENCE INSPIRE CAMP	1,56,665.00		1,56,665.00	0.00



4.3.280	DST SERB/503/ECE/2016-17		24,73,500.00		24,73,500.00
4.3.281	DST SERB/506/AM/2016-17		8,00,000.00		8,00,000.00
4.3.282	DST SERB/508/PDF/AC/2016-17		2,97,000.00		2,97,000.00
4.3.283	DST SERB /510/AM/2016-17		5,56,400.00		5,56,400.00
4.3.284	DST-TA/ S.K RAGHUVANSHI, ECE		74,920.00	74,920.00	0.00
4.3.285	EC(1)2008-09/239/AGL	8,181.00			8,181.00
4.3.286	HUDCO/436/CE/2015-16	5,21,880.00		3,09,090.00	2,12,790.00
4.3.287	ICHR(I)434/HSS/2015-16		1,90,000.00	96,465.00	93,535.00
4.3.288	ICMR/476/ESE/2016-17		4,98,666.00	4,42,499.00	56,167.00
4.3.289	ICPR/408/HSS	1,32,599.00		1,22,198.00	10,401.00
4.3.290	ICPR/451/15-16/HSS	1,50,000.00		20,357.00	1,29,643.00
4.3.291	ICSSR/355/13-14/MS	158.00	22,500.00	22,575.00	83.00
4.3.292	ICSSR/414/MS	1,43,802.00	44,300.00	1,70,157.00	17,945.00
4.3.293	IICI(I)2007-2008/01/FME	5,73,106.00			5,73,106.00
4.3.294	INDO US BASE MOHUA		8,50,000.00	8,50,000.00	0.00
4.3.295	Inspire Fellowship			16,000.00	-16,000.00
4.3.296	INSPIRE/JRF	90,078.00	3,40,991.00	3,48,460.00	82,609.00
4.3.297	IPEM/367/INST/2013-14		2,46,999.00	62,143.00	1,84,856.00
4.3.298	IPEM/399/INST/2014-15	1,64,401.00		9,951.00	1,54,450.00
4.3.299	ISRO/328/2012-13/AM	1,23,607.00	99.00	1,23,706.00	0.00
4.3.300	ISRO/400/2014-15/ECE	7,09,108.00	3,26,959.00	10,36,067.00	0.00
4.3.301	ISRO/493/AGP/2016-17		18,40,000.00	2,26,570.00	16,13,430.00
4.3.302	ISRO/500/AGL/2016-17		6,12,000.00	1,02,000.00	5,10,000.00
4.3.303	ISRO/502/ME/2016-17		1,17,000.00	11,000.00	1,06,000.00
4.3.304	KRC/ESE/2014-15	1,30,077.00		1,30,077.00	0.00
4.3.305	MCIT/419/CSE	33,13,013.00	3,67,362.00	31,72,275.00	5,08,100.00
4.3.306	MDWS/453/ESE/2015-16	9,07,200.00		4,43,262.00	4,63,938.00
4.3.307	MHRD/402/INST/14-15	145,88,233.00		2,03,857.00	143,84,376.00
4.3.308	MHRD/438/15-16/ (FDC)/INST	261,92,541.00		239,38,215.00	22,54,326.00
4.3.309	MISC RECEIPTS - R&D PROJECTS	0.00	56,10,625.00	0.00	56,10,625.00
4.3.310	MIT/189/CSE	549.00			549.00
4.3.311	MOC/441/15-16/ME	32,46,079.00		22,70,592.00	9,75,487.00
4.3.312	MOC/449/CE/15-16	136,25,464.00		5,63,131.00	130,62,333.00
4.3.313	MOEF/443/ESE/2015-16		17,12,320.00		17,12,320.00
4.3.314	MOES/322/12-13/AGP	12,317.00			12,317.00
4.3.315	MOES/357/2013-14/AGP	6,74,004.00	5,92,700.00	7,30,956.00	5,35,748.00
4.3.316	MOES/398/ESE/2014-15	6,14,378.00	2,76,553.00	3,18,875.00	5,72,056.00
4.3.317	MOES/407/2014-15/AGL	46,26,491.00	1,67,802.00	5,44,390.00	42,49,903.00
4.3.318	MOES/418/AGP	4,23,332.00		3,29,100.00	94,232.00
4.3.319	MOES/424/2015-16/AGL	3,49,028.00		3,28,526.00	20,502.00
4.3.320	MOES/425/2015-16/ME	19,75,397.00	50,536.00	9,19,705.00	11,06,228.00
4.3.321	MOES/426/2015-16/AGL	37,60,000.00		1,82,372.00	35,77,628.00
4.3.322	MoES/456/AGP/2015-16	6,50,000.00		4,51,280.00	1,98,720.00
4.3.323	MOM/329/FME/12-13	3,09,573.00		3,09,573.00	0.00
4.3.324	MOM/417/15-16/ME	1,75,500.00	17,05,500.00	5,35,404.00	13,45,596.00
4.3.325	MOM/450/2015-16/ME	25,60,000.00		5,08,844.00	20,51,156.00
4.3.326	MSME(1)09-10/263/DRD/MS		82,500.00		82,500.00
4.3.327	MWR/184/MIN	97,072.00			97,072.00



4.3.328	MWR/307/AGL (2)/2011-12	189,46,745.00			189,46,745.00
4.3.329	MWR/308/ESE (3)/2012-13	5,02,814.00		3,568.00	4,99,246.00
4.3.330	NAMAMI GANGE A/C			1,13,139.00	-1,13,139.00
4.3.331	O/DB/4111	18,71,671.51			18,71,671.51
4.3.332	OIL/321/PE/12-13	11,41,975.00		3,83,955.00	7,58,020.00
4.3.333	OIL/377/2013-14/PE	48,886.00	2,14,500.00	1,45,988.00	1,17,398.00
4.3.334	OIL/428/PE/2016	3,82,974.00	5,08,860.00	3,60,576.00	5,31,258.00
4.3.335	ONGC VIDESH LTD		107,55,375.00	6,54,219.00	101,01,156.00
4.3.336	OTHER PROJECT	146,35,016.13			146,35,016.13
4.3.337	PDF NBHM DAE RACHNA BHATIA		5,50,400.00	3,86,800.00	1,61,600.00
4.3.338	SAC/183/AGP	4,425.00			4,425.00
4.3.339	SERB KUMARASWAMIDHAS		1,14,147.00	1,14,147.00	0.00
4.3.340	TEQIP-II	252,26,256.00	108,38,479.00	321,32,251.00	39,32,484.00
4.3.341	UGC/397/ME/2014-15	3,39,826.00		41,192.00	2,98,634.00
4.3.342	UGC/79/2007/(BSR)	-1,41,980.00	1,41,980.00		0.00
4.3.343	Sub total (R&D Projects)	2746,19,032.04	2278,59,474.00	16,26,61,568.00	33,98,16,938.04

(C) Department Development Fund - TEQIP:

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
4.3.344	Anand Shankar Hari/MRP-DDF/MME/TEQIP		2,00,000.00		2,00,000.00
4.3.345	Anjit Baral/MRP-DDF/EE/TEQIP		2,00,000.00	89,180.00	1,10,820.00
4.3.346	B K Naick/MRP-DDF/EE/TEQIP		2,00,000.00	-	2,00,000.00
4.3.347	Chandan Guria/MRP-DDF/PE/TEQIP		2,00,000.00	1,03,745.00	96,255.00
4.3.348	Gauri Shankar/MRP-DDF/EE/TEQIP		2,00,000.00	-	2,00,000.00
4.3.349	G SRINIVAS RAO/MRP-DDF/AGP/TEQIP		2,00,000.00	-	2,00,000.00
4.3.350	Jaisingh T /MRP-DDF/ECE/TEQIP		2,00,000.00	-	2,00,000.00
4.3.351	Kaushik Mazumdar/MRP-DDF/ECE/TEQIP		2,00,000.00	-	2,00,000.00
4.3.352	Lutukurthi D N V V Konda/MRP-DDF/CHE/TEQIP		2,00,000.00	-	2,00,000.00
4.3.353	Md. Soyeb Alam/MRP-DDF/ME/TEQIP		2,00,000.00	42,341.00	1,57,659.00
4.3.354	MRINAL SEN/MRP-DDF/ECE/TEQIP		2,00,000.00	-	2,00,000.00
4.3.355	Padinaidu Paluri/MRP-DDF/CHE/TEQIP		2,00,000.00	-	2,00,000.00
4.3.356	Patitapaban Sahu/MRP-DDF/ME/TEQIP		2,00,000.00	-	2,00,000.00
4.3.357	Pawan Kr. Singh/MRP-DDF/MECH/TEQIP		2,00,000.00	1,49,509.00	50,491.00
4.3.358	P K NAYAK/MRP-DDF/EE/TEQIP		2,00,000.00	-	2,00,000.00
4.3.359	P R SAHOO/ MRP /DDF /AGL /TEQIP		2,00,000.00	-	2,00,000.00
4.3.360	Radhakanta Koner/MRP-DDF/ME/TEQIP		2,00,000.00	-	2,00,000.00
4.3.361	Rahul Bhattacharya/MRP-DDF/ECE/TEQIP		2,00,000.00	-	2,00,000.00
4.3.362	Rajeev Kr. Ranjan /MRP /ECE /TEQIP		2,00,000.00	-	2,00,000.00
4.3.363	RAJIV SARKAR/ MRP/DDF /CE/TEQIP		2,00,000.00	3,730.00	1,96,270.00
4.3.364	Rakesh Kumar/MRP-DDF/MECH		2,00,000.00	1,25,934.00	74,066.00



	/TEQIP			
4.3.365	R K SINHA/MRP-DDF/ME/TEQIP		2,00,000.00	-
4.3.366	R R Das/MRP-DDF/MME/TEQIP		2,00,000.00	-
4.3.367	Sarjoy Mondal/MRP-DDF/ EE/TEQIP		2,00,000.00	-
4.3.368	Seurabh Datta Gupta/MRP-DDF /AGP /TEQIP		2,00,000.00	-
4.3.369	Shatrughan Soren/MRP-DDF /FME /TEQIP		2,00,000.00	-
4.3.370	Sheeja Jegadevan/MRP-DDF /ESE /TEQIP		2,00,000.00	49,902.00
4.3.371	S Narayanan/MRP-DDF /MECH /TEQIP		2,00,000.00	98,374.00
4.3.372	Sowmiya Chawla/MRP-DDF /CE /TEQIP		2,00,000.00	1,99,886.00
4.3.373	Srinivas Pasupuleti/MRP-DDF /CE /TEQIP		2,00,000.00	1,96,427.00
4.3.374	Subhankar Sen/MRP-DDF /MECH /TEQIP		2,00,000.00	39,000.00
4.3.375	Subrata Kumar Ghosh/MRP-DDF /MECH /TEQIP		2,00,000.00	-
4.3.376	Tanish Dey/MRP/DDF/CE/TEQIP		2,00,000.00	-
4.3.377	Tanweer Alam/ MRP /DDF /MME /TEQIP		2,00,000.00	-
4.3.378	Tarachand Amgoth/MRP-DDF /CSE /TEQIP		2,00,000.00	-
4.3.379	T K NAIYA/MRP-DDF/PE/TEQIP		2,00,000.00	44,559.00
4.3.380	Vijaya Bhaskar/MRP-DDF /EE /TEQIP		2,00,000.00	11,442.00
4.3.381	Vivek Bajpai/MRP-DDF /MECH /TEQIP		2,00,000.00	-
4.3.382	V V Govind Kumar/MRP-DDF /ME /TEQIP		2,00,000.00	-
4.3.383	Sub total (Department Development Fund - TEQIP)		78,00,000.00	11,54,029.00
				66,45,971.00

(D) UGC Sponsored Projects

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
4.3.384	JRF/SRF Fellowship (F.17-161/98(SA-1))	4,26,637.00			4,26,637.00
4.3.385	Spl. Assistance/CAS Programme	10,34,801.32			10,34,801.32
4.3.386	UGC/192/AC	64,104.00			64,104.00
4.3.387	UGC/193/APPL. MATHS	3,700.00			3,700.00
4.3.388	UGC/195/APPL. MATHS	71,671.00			71,671.00
4.3.389	UGC/2007/BSR/7-79	10,31,842.00	4,743.00	10,36,585.00	0.00
4.3.390	UGC/204/AM	7,653.00			7,653.00
4.3.391	UGC/205/PET ENGG.	4,80,781.00			4,80,781.00
4.3.392	UGC/214(43)/2008-09/AM	12,07,403.00			12,07,403.00
4.3.393	UGC/222(34)/2008-09/MS	14,969.00			14,969.00
4.3.394	UGC/229(36)/2008-09/AM		1,27,146.00	1,26,600.00	546.00
4.3.395	Ugc/249(48)/2009-10/APH	92,847.00			92,847.00
4.3.396	UGC/255/AM	9,805.00			9,805.00
4.3.397	UGC/257/APPL. PHY	3,904.00			3,904.00
4.3.398	UGC/266/PE	5,00,000.00			5,00,000.00
4.3.399	UGC/277/APH	19,404.00			19,404.00
4.3.400	UGC/279/APH	3,204.00	4,21,292.00	4,24,496.00	0.00



4.3.401	UGC/279/EE	-1,804.00	1,804.00		0.00
4.3.402	UGC/283/APH	47,648.00		47,648.00	0.00
4.3.403	UGC/284/FME	38,143.00			38,143.00
4.3.404	UGC/285/AC	18,819.00			18,819.00
4.3.405	UGC/286/AM	34,304.00		34,304.00	0.00
4.3.406	UGC/287/APH	9,769.00		9,290.00	499.00
4.3.407	UGC/288/10-11/ME&MME	19,450.00			19,450.00
4.3.408	UGC/289/HSS/10-11	1,10,412.00			1,10,412.00
4.3.409	UGC/292/AM	6.00			6.00
4.3.410	UGC-295/DCSR.APH	160.00			160.00
4.3.411	UGC/296/11-12/AGP	24,36,317.00	6,20,082.00	25,24,472.00	5,31,927.00
4.3.412	UGC/297/ECE	24,401.00		20,410.00	3,991.00
4.3.413	UGC/316/CSE/2012-13	93,092.00		86,000.00	7,092.00
4.3.414	UGC/317/AGL/2012-13	1,65,091.00			1,65,091.00
4.3.415	UGC/318/ESE/2012-13	527.00			527.00
4.3.416	UGC/319/2012-13/AM	500.00		500.00	0.00
4.3.417	UGC/323/APH	185.00	1,15,869.00	1,10,276.00	5,778.00
4.3.418	UGC/330/MS	65,026.00		18,062.00	47,966.00
4.3.419	UGC/331/13-14/MS	74,773.00			74,773.00
4.3.420	UGC/332/MS	8,605.00			8,605.00
4.3.421	UGC/333/MS	924.00		849.00	75.00
4.3.422	UGC/334/PF	35,433.00		35,429.00	4.00
4.3.423	UGC/335/PE/2013-14	6,657.00		6,657.00	0.00
4.3.424	UGC/336/PE/2013-14	1,846.00		1,846.00	0.00
4.3.425	UGC/337/AM/2013-14	13,416.00	68,000.00	81,416.00	0.00
4.3.426	UGC/340/2013-14/PE	198.00			198.00
4.3.427	UGC/341/2013-15/EC	1,54,651.00		1,54,651.00	0.00
4.3.428	UGC/342/2013-14/EE	30,822.00		30,822.00	0.00
4.3.429	UGC/343/2013-14/ECE	44.00		44.00	0.00
4.3.430	UGC/345/2013-14/EE	1,522.00		1,522.00	0.00
4.3.431	UGC/346/EE	23,075.00		23,075.00	0.00
4.3.432	UGC/347/2013-14/EE	5,07,172.00		5,07,172.00	0.00
4.3.433	UGC/353/MECH/2013-14	46,184.00		46,184.00	0.00
4.3.434	UGC/354/MECH/2013-14	68,800.00		68,800.00	0.00
4.3.435	UGC/98/JRF/F.17-161	4,56,737.00	4,16,747.00	6,08,991.00	2,84,493.00
4.3.436	UGC/98/JRF/GYAN PRAKASH	1,82,951.00		1,26,451.00	56,500.00
4.3.437	UGC/CAS/ME Phase-II (Grants)	4,84,687.87			4,84,687.87
4.3.438	UGC/HEPSN-TEPSE	4,18,302.00			4,18,302.00
4.3.439	UGC MISCELLANEOUS		52,894.00	52,894.00	0.00
4.3.440	UGC Misc. Project	5,00,000.00			5,00,000.00
4.3.441	UGC/SAP/179/AGP/Phase-III	2,17,006.00			2,17,006.00
4.3.442	UGC/SAP/AGP Phase - II	1,90,112.00			1,90,112.00
4.3.443	UGC - Unassigned Grant	1,37,161.75			1,37,161.75
4.3.444	Sub total (UGC Projects)	115,96,872.94	18,28,577.00	61,85,446.00	72,40,003.94
4.3.445	Total R&D PROJECTS (A+B+C+D)	3166,40,764.98	2575,85,165.00	18,64,73,479.00	38,77,52,450.98

**(E) Statutory Liabilities(Projects):**

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
4.3.446	Income Tax Employess, Oil Chair		2,81,144.00	2,81,144.00	0.00
4.3.447	Income Tax From Contractors	513.00	1,98,532.00	1,99,045.00	0.00
4.3.448	INCOME TAX FROM EMPL		152,39,158.00	152,39,158.00	0.00
4.3.449	Income Tax From Employees, Rajeev Gandhi Chair		4,49,268.00	4,49,268.00	0.00
4.3.450	Income Tax From NMDC Chair (Employees)		5,80,743.00	5,80,743.00	0.00
4.3.451	Income Tax From Professional Services		8,440.00	8,440.00	0.00
4.3.452	Income Tax From Sandvik Chair (Employees)		5,49,145.00	5,49,145.00	0.00
4.3.453	INCOME TAX FROM TEQIP-II (Contractors)	38.00	13,785.00	13,823.00	0.00
4.3.454	Income Tax From Teqip-II (Employees)		4,635.00	4,635.00	0.00
4.3.455	Income Tax From TEQIP-II (Prof. Services)		11,000.00	11,000.00	0.00
4.3.456	Income Tax SAIL NMDC CHAIR (EMPLOYEES)		3,39,409.00	3,39,409.00	0.00
4.3.457	JVAT		1,49,784.00	1,49,784.00	0.00
4.3.458	LABOUR WELFARE CESS		80.00	80.00	0.00
4.3.459	Sales Tax		321.00	321.00	0.00
4.3.460	Service Tax		184,28,866.00	179,95,356.00	4,33,511.00
4.3.461	Sub-total(E)	551.00	362,54,310.00	358,21,350.00	4,33,511.00

(F) Other Current Liabilities (Projects):

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
4.3.462	Short Term Courses	11,000.00	5,75,150.00	5,75,465.00	10,685.00
4.3.463	Central Research Facility	6,00,662.00	9,44,407.00		15,45,069.00
4.3.464	Earnest Money	1,66,750.00			1,66,750.00
4.3.465	SECURITY DEPOSIT	9,53,399.85	15,18,311.00	15,25,775.00	9,45,935.85
4.3.466	AAPG/AGL		98,000.00	98,000.00	0.00
4.3.467	Athletica-2k8	206.00			206.00
4.3.468	B E Course for Afghan Students - 2014	78,95,746.00	260,67,568.00	251,46,450.00	88,16,854.00
4.3.469	Best Research Award Fund	54,280.00			54,280.00
4.3.470	BRS Liabilities		8,14,703.49	1,28,701.00	6,86,002.49
4.3.471	CALCIO CUP	248.00			248.00
4.3.472	CCL RANCHI	8,19,963.04			8,19,963.04
4.3.473	Certificate Course-DMS	15,765.00			15,765.00
4.3.474	Children Activity Centre	675.00			675.00
4.3.475	Course Fee for Foreign Language (French)	19,108.00		19,108.00	0.00
4.3.476	CRF : TGA		1,200.00		1,200.00
4.3.477	CRF - FESEM	67,000.00	3,000.00		70,000.00
4.3.478	CRF-SPM	1,16,710.00	1,04,625.00	500.00	2,20,835.00
4.3.479	CTC 2014-15/AM	3,06,636.00			3,06,636.00
4.3.480	DST/459/inspire Fellowship	22,470.00	3,34,530.00	3,48,190.00	8,810.00



IIT(ISM) DHANBAD ANNUAL ACCOUNTS F.Y. 2016-17

4.3.481	DSTA 2016	23,000.00	3,21,800.00	3,44,800.00	0.00
4.3.482	East Zone Inter University Youth	1,34,373.10			1,34,373.10
4.3.483	ECO CLUB DEPTT. OF ESE	4,500.00			4,500.00
4.3.484	FTPMA 2015	1,48,868.00	4,800.00	1,53,468.00	0.00
4.3.485	GATE-JAM		78,100.00	78,100.00	0.00
4.3.486	GEOCONFLUENCE 2016	83,026.00	4,27,655.00	3,55,003.00	1,55,678.00
4.3.487	HSS- Foreign Language Course	16,600.00	4,23,000.00	1,60,404.00	2,79,196.00
4.3.488	HSS- Foreign Language Course, Monsoon, 2013-14	1,85,332.00		1,85,332.00	0.00
4.3.489	IDL/ESE DEPT.		800.00		800.00
4.3.490	Income Tax From Uranium Chair (Cont./supp)		250.00	250.00	0.00
4.3.491	Industry Institute Interation	1,00,000.00			1,00,000.00
4.3.492	International Conf. on MSEMI-2007	15,38,817.00			15,38,817.00
4.3.493	INTL/PG/ARIANA/2016-17		2,17,638.00		2,17,638.00
4.3.494	ISFA	35,000.00		35,000.00	0.00
4.3.495	ISM ALUMNI FUND	48,300.00	2,85,950.00		3,34,250.00
4.3.496	IWCMVA		75,000.00	75,000.00	0.00
4.3.497	KHANAN - 2016		74,000.00	74,000.00	0.00
4.3.498	Linux Certificate Course (CSE)	68,000.00			68,000.00
4.3.499	Matlab Certificate Course of Computer Centre	53,899.00		53,899.00	0.00
4.3.500	Matlab Certificate Course of CSE	52,500.00		52,500.00	0.00
4.3.501	MENTCA 2015		50,000.00	50,000.00	0.00
4.3.502	MESS FEE (LIB)		6,45,744.00		6,45,744.00
4.3.503	MESS FEE-Amber Hostel		279,49,617.00	21,03,102.00	258,46,515.00
4.3.504	MESS FEE-Diamond Hostel		69,60,403.00		69,60,403.00
4.3.505	MESS FEE-Emerald Hostel		63,73,635.00		63,73,635.00
4.3.506	MESS FEE-Jasper Hostel		437,49,702.00		437,49,702.00
4.3.507	MESS FEE-Opal Hostel		74,88,129.00		74,88,129.00
4.3.508	MESS FEE-Ruby Hostel		123,83,052.00		123,83,052.00
4.3.509	MESS FEE-Sapphire Hostel		110,07,266.00	17,91,273.00	92,15,993.00
4.3.510	MESS FEE-Topaz Hostel		68,89,932.00		68,89,932.00
4.3.511	MESS FEE-Rosaline hostel		60,000.00		60,000.00
4.3.512	Misc Receipts	19,22,530.00	546,85,479.35	266,45,686.25	299,62,323.10
4.3.513	MOES/17/2015-16	2,29,000.00	1,25,000.00	3,53,999.50	0.50
4.3.514	MSME (Arti Hansda)	98,000.00	4,000.00		1,02,000.00
4.3.515	M Tech Course of Afghan		5,09,119.00	1,06,676.00	4,02,543.00
4.3.516	National Seminar MTGST-2007	1,721.00			1,721.00
4.3.517	National Workshop on E - Governance Awarness	1,778.00			1,778.00
4.3.518	NCLC-2016		4,30,000.00	4,30,000.00	0.00
4.3.519	NIT DURGAPUR	2,33,607.00			2,33,607.00
4.3.520	NSS (Regular)	3,537.00			3,537.00
4.3.521	NTPC LTD,	49,000.00			49,000.00
4.3.522	PEDJP-2017		16,40,000.00	16,40,000.00	0.00
4.3.523	RAG-2011	9,000.00			9,000.00
4.3.524	RAIT 2016	40,610.00	1,24,000.00	1,64,610.00	0.00
4.3.525	REMTAI 2016	1,23,134.00	11,000.00	1,34,134.00	0.00
4.3.526	RTBC-2016		43,000.00	43,000.00	0.00



4.3.527	Scolomin Club	5,200.00	100.00		5,300.00
4.3.528	SERB-SANTANKUMAR		1,09,720.00	1,09,720.00	0.00
4.3.529	Student Society PET		2,00,000.00	2,00,000.00	0.00
4.3.530	Travel Grant	13,025.00		1,30,473.00	-1,17,448.00
4.3.531	Unpaid Salary	12,516.75			12,516.75
4.3.532	WMVC-2015		1,00,000.00	1,00,000.00	0.00
4.3.533	WNSLS 2016	5,000.00		5,000.00	0.00
4.3.534	WORKSHOP COMPUTER METHOD FOR ENGG OF SCIENTIST	-32,779.00	1,00,000.00	21,448.00	45,773.00
4.3.535	Workshop on Catalysis		1,50,000.00	1,50,000.00	0.00
4.3.536	Workshop on NCEP Awareness	345.00			345.00
4.3.537	Workshop on Pandit M M Malviya	24.00			24.00
4.3.538	ICAFD - 2016		2,90,000.00	2,90,000.00	0.00
4.3.539	SERB - ABHAY KUMAR BHARTI		1,03,567.00	1,03,567.00	0.00
4.3.540	SERB - VIKRAM PALODIYA		1,51,502.00	1,51,502.00	0.00
4.3.541	SME ISM STUDENT CHAPTER		4,21,000.00	4,21,000.00	0.00
4.3.542	OUTSTANDING EXPENSES (CSIR/ 327/ MS/ 2012-13)	0.00	20,12,308.00	0.00	20,12,308.00
4.3.543	Sub-total (F)	162,57,902.74	21,71,37,752.84	645,55,035.75	16,88,40,619.83
4.3.544	Total (E+F)	162,58,453.74	25,33,92,062.84	1003,76,385.75	16,92,74,130.83

(G) Inter-Unit Liabilities (Project)

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
4.3.545	BENEVOLENT FUND		16,27,115.00	16,27,115.00	0.00
4.3.546	EDC Room Rent		40,15,225.00	40,15,225.00	0.00
4.3.547	Electric Charges for CIL Chair		14,033.00	14,033.00	0.00
4.3.548	Electric Charges for Rajiv Gandhi Chair		11,269.00	11,269.00	0.00
4.3.549	Electric Charges From NMDC CHAIR		6,101.00	6,101.00	0.00
4.3.550	ISM BASANT A/C		11,20,971.75	11,20,971.75	0.00
4.3.551	ISM IIF, Kolkata		1,47,000.00	1,47,000.00	0.00
4.3.552	Licence Fee From NMDC Chair		12,248.00	12,248.00	0.00
4.3.553	Medical Charges for CIL Chair		6,000.00	6,000.00	0.00
4.3.554	Medical Charges From NMDC Chair		6,726.00	6,726.00	0.00
4.3.555	Medical Charges From Rajiv Gandhi Chair		5,500.00	5,500.00	0.00
4.3.556	Medical Charges From Sail NMDC CHAIR FUND		5,500.00	5,500.00	0.00
4.3.557	Medical Charges From Sandvik Chair		5,500.00	5,500.00	0.00
4.3.558	NON PLAN CONTROL A/C	682,02,896.90	1499,54,830.67	1692,93,506.00	488,64,221.57
4.3.559	N.Plan End. Fund (Surplus Payable)	438,56,206.67	569,52,916.58	438,56,207.00	569,52,916.25
4.3.560	P.F. Control A/c		6,05,503.00	6,05,503.00	0.00
4.3.561	SAH Room Rent		1,12,000.00	1,12,000.00	0.00
4.3.562	SAH Room Rent (Sandvik Chair Fund)		800.00	800.00	0.00
4.3.563	SAH (ROOM RENT) TEQIP-II		4,000.00	4,000.00	0.00
4.3.564	School Development Fund		71,592.00	71,592.00	0.00
4.3.565	School Support Charges		258,11,678.67	258,11,678.67	0.00



4.3.566	Scolomin Club for CIL Chair		1,200.00	1,200.00	0.00
4.3.567	Scolomin Club for Rajeev Gandhi Chair		1,100.00	1,100.00	0.00
4.3.568	VEHICLE CHARGES		83,177.00	83,177.00	0.00
4.3.569	Vehicle Charges for CIL Chair		500.00	500.00	0.00
4.3.570	Vehicle Charges From MOLE Chair		153.00	153.00	0.00
4.3.571	Vehicle Charges of NMDC CHAIR		530.00	530.00	0.00
4.3.572	Sub-total(G)	1120,59,103.57	2405,83,169.67	2468,25,135.42	1058,17,137.82
4.3.573	Total Other Current Liabilities (Project)	4449,59,322.29	75,15,60,397.61	53,36,75,000.17	6628,43,719.63
(H) Consultancy Projects:					
C	Particulars	2016-17	2016-17	2015-16	2015-16
4.3.574	Opening Balance	1097,53,911.12		917,15,676.12	
4.3.575	Add: Total Receipts during the year	1350,82,189.70		993,54,576.80	
4.3.576	Less: Payments from consultancy projects during the year	962,02,443.60	1466,33,657.22	813,16,341.80	1097,53,911.12
4.3.577	Balance as on 31 March		1466,33,657.22		1097,53,911.12
4.00	Total Current Liabilities		8094,77,376.85		5547,12,233.41

SCHEDULE - V: FIXED ASSETS

S No	Particulars	Balance as on 01.04.2016	Additions during the year	Deductions/Adj during the year	Gross Total	Depreciation				
						Upto 2015-16	Dep. %	For 2016-17	Total Depreciation	Closing Balance as on 31.3.2017
5.1.1	Communication System	200,60,437.00	34,36,458.00	0.00	234,96,895.00	73,05,594.16	8%	17,62,289.38	90,70,883.54	144,26,061.46
5.1.2	Computer Software	262,11,757.00	29,40,752.00	0.00	291,52,509.00	230,41,565.28	40%	61,10,942.72	291,52,508.00	1.00
5.1.3	Computers, Peripherals & Internet Equipment	1926,53,017.00	175,33,310.00	0.00	2,101,86,327.00	1,783,68,981.15	20%	318,27,344.85	2,101,86,326.00	1.00
5.1.4	Furniture & Fixtures	1166,45,070.00	170,83,438.00	0.00	1,337,28,508.00	330,59,267.87	8%	100,29,638.10	430,88,905.97	906,39,802.03
5.1.5	Land - Freehold	146,62,250.00	0.00	0.00	146,62,250.00	0.00	0%	0.00	0.00	146,62,250.00
5.1.6	Library Books & Journals	3444,55,798.00	365,73,452.00	28,28,130.00	3782,01,118.00	3187,99,858.54	10%	378,20,111.80	3566,19,970.34	215,81,147.66
5.1.7	Office Automation	16,12,273.00	12,57,772.00	0.00	28,70,045.00	7,70,656.42	8%	2,29,803.60	10,00,200.02	18,69,784.98
5.1.8	Equipment/Lab Development Plant, Machinery & Equipment	7653,09,103.19	736,76,998.00	436,26,074.00	7952,60,027.19	3848,21,475.52	8%	598,63,384.18	4248,84,859.69	3705,75,167.50
5.1.9	Power & Water Supply equipments#	1138,45,732.00	97,05,212.00	45,74,228.00	1189,76,716.00	387,16,332.78	6%	58,41,239.80	452,57,572.58	737,19,143.42
5.1.10	Roads & Buildings	14214,55,669.00	436,94,208.00	0.00	14651,49,777.00	4938,18,472.18	2%	293,02,895.54	5231,21,467.72	9420,28,309.28
5.1.11	Student Amenities	262,93,910.00	2,42,100.00	0.00	265,36,010.00	115,37,365.01	8%	21,40,200.75	136,77,555.76	148,58,454.24
5.1.12	Vehicles	137,31,065.00	6,52,499.00	0.00	143,83,564.00	64,15,739.60	10%	14,38,358.40	78,54,098.00	65,29,468.00
		0.00	546,83,141.00	0.00	546,83,141.00	0.00	40%	384,76,412.40	384,76,412.40	162,06,728.60
5.1.13	Total - Current year (Plan)	30589,35,979.19	2613,79,370.00	510,28,432.00	32692,86,917.19	14776,48,296.78		2245,43,499.51	17021,90,796.29	15670,96,120.90

Opening Balance of accumulated depreciation - discharging depreciation with retrospective effect as per Govt Audit observation

Non-Plant:										
Sl No	Particulars	Balance as on 01.04.2016	Additions during the year	Deductions/Adj during the year	Gross Total	Upto 2015-16	Dep. %	For 2016-17	Total Depreciation	Closing Balance as on 31.3.2017
5.2.1	Building including Gen set at NBCC Kolkata - Endowment Fund	1530,52,029.00	40,72,769.00	0.00	1571,24,798.00	90,09,530.00	2%	31,42,485.96	121,52,025.96	1449,72,772.04
5.2.2	Building including Gen set at NBCC N Delhi - Endowment Fund	3400,25,456.00	261,97,726.00	159,02,179.00	3503,21,003.00	0.00	2%	70,06,420.06	70,06,420.06	3433,14,582.94
5.2.3	Communication Facilities	97,66,393.00	3,63,995.00	0.00	101,30,378.00	59,21,586.06	8%	7,59,778.35	66,81,364.41	34,49,013.59
5.2.4	Computer Hardware	32,97,738.00	20,67,328.00	0.00	53,65,066.00	30,92,144.75	20%	10,73,013.20	41,55,157.95	12,09,908.05
5.2.5	Computer Software	16,18,126.00	0.00	0.00	16,18,126.00	16,15,108.88	40%	3,016.14	16,18,125.00	1,00
5.2.6	Electrical Installations	40,52,962.00	0.00	0.00	40,52,962.00	23,01,002.20	5%	2,02,648.10	25,03,650.30	15,49,311.70
5.2.7	Equipment for Laboratories	139,64,076.00	2,21,468.00	0.00	141,85,544.00	122,35,504.39	8%	11,34,843.52	133,70,407.91	8,15,136.09
5.2.8	Furniture & Fixtures	142,98,645.00	96,335.00	64,364.00	143,23,616.00	111,92,533.66	8%	10,74,271.20	122,66,804.86	20,56,811.14
5.2.9	Library Books & Journals	368,44,775.00	0.00	0.00	368,44,775.00	365,58,277.77	10%	2,86,496.23	368,44,774.00	1,00
5.2.10	Office Equipment	181,51,317.00	0.00	0.00	181,51,317.00	86,84,969.42	8%	13,61,348.76	100,46,318.20	81,04,998.80
5.2.11	Roads & Buildings (On Freehold Land)	97,69,200.00	0.00	0.00	97,69,200.00	59,02,777.63	2%	1,95,384.00	60,98,161.63	36,71,038.37
5.2.12	Student Hostel furniture	14,44,548.00	0.00	0.00	14,44,548.00	8,40,357.27	8%	1,08,341.10	9,48,698.37	4,95,848.63
5.2.13	Tubewells & Water Supply Equipment	16,22,311.00	0.00	0.00	16,22,311.00	9,04,917.97	2%	32,446.22	9,37,364.19	6,84,946.81
5.2.14	Vehicles	5,51,432.00	0.00	0.00	5,51,432.00	4,42,869.40	10%	55,143.20	4,98,012.60	53,419.40
5.2.15	Total - Current year (Non Plan)	6004,49,998.00	330,21,521.00	159,66,543.00	6255,05,076.00	966,31,630.73		164,35,646.06	1151,27,276.79	5103,77,799.21

Project:		Depreciation								
Sl No	Particulars	Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Gross Total	Upto 2015-16	Dep. %	For 2016-17	Total Depreciation	Closing Balance as on 31.3.2017
5.3.1	Books and Journals	105,00,919.00	1,54,926.00	0.00	106,55,845.00	71,23,929.00	10%	10,65,584.50	81,89,513.50	24,66,331.50
5.3.2	Computer Software	167,73,177.00	45,52,015.00	0.00	233,25,192.00	164,19,318.97	40%	69,05,872.03	233,25,191.00	1.00
5.3.3	Computers, Peripherals & Internet Equipment	340,42,332.40	48,45,593.00	0.00	388,87,925.40	316,50,593.96	20%	70,40,330.44	386,90,924.40	1.00
5.3.4	Furniture & Fixtures	42,12,885.00	15,07,241.00	0.00	57,14,136.00	13,48,511.32	7.5%	4,28,560.20	17,77,071.52	39,37,064.48
5.3.5	Office Equipment	41,85,393.00	12,37,369.00	0.00	54,22,762.00	11,62,610.30	7.6%	4,08,706.40	15,69,316.70	38,53,435.30
5.3.6	Plant, Machinery & Equipment - Equipment/ Lab. Development	3130,40,423.27	621,33,059.00	0.00	3751,73,482.27	1648,82,572.95	8%	300,13,878.55	1949,96,451.53	1801,77,030.74
5.3.7	Roads & Buildings (On Freehold Land)	400,96,799.06	0.00	0.00	400,96,799.06	275,71,739.83	2%	8,01,935.88	283,73,675.81	117,23,123.25
5.3.8	Vehicles	10,43,602.00	0.00	0.00	10,43,602.00	8,66,156.01	10%	1,04,360.20	9,70,515.21	73,086.79
5.3.9	Current year (Project)	4258,95,530.73	742,27,203.00	0.00	5001,22,733.73	2511,25,431.34		467,67,228.33	2978,92,659.68	2022,30,074.06
5.3.10	TOTAL - Current year	40932,81,507.92	3686,28,194.00	669,94,975.00	43949,14,726.92	18274,65,358.85		2877,45,373.90	21152,10,732.77	22797,03,994.16

* Depreciation has been calculated as per prescribed rates (Details are explained under Notes on Accounts)



SCH. - VI : CURRENT ASSETS, LOANS, ADVANCES, ETC.					
VI (A) Cash and Bank Balances :					
Plan:	Particulars	2016-17	2016-17	2015-16	2015-16
6.1.1	<u>Cash at Bank :</u>				
6.1.2	SBI, ISM Campus Br, Dhn (Plan C/A)	276,49,994.16		865,70,741.91	
6.1.3	Sub Total (Plan)		276,49,994.16		865,70,741.91
Non-Plan:					
6.2.1	<u>Bank Bal. with Scheduled Banks :</u>				
6.2.2	SBI, ISM Campus Br, Dhn (N Plan C/A)	736,08,815.17		2180,78,437.35	
6.2.3	Canara Bank, SDL Br., Dhn	28,953.00		28,953.00	
6.2.4	Canara Bank, Parimt. St.Br N Delhi	9,537.00		9,537.00	
6.2.5	SBI, ISM, Dhn (Endow Fund SB A/c)	23,25,814.01		28,80,878.01	
6.2.6	Online SBI Bank A/c	0.00		0.00	
6.2.7	SBI Power Jyoti online	1,25,878.86		8,17,032.00	
6.2.8	E-payment SBI Bank Account	48,022.50		48,786.00	
6.2.9	Sub Total (Non Plan)	761,46,820.54	761,46,820.54	2218,63,423.36	2218,63,423.36
6.2.10	Cash in Hand	39,275.20	39,275.20	2,18,614.70	2,18,614.70
6.2.11	Total Cash & Bank Balances (Non Plan)	761,86,095.74	761,86,095.74	2220,82,038.06	2220,82,038.06
Project:					
		2016-17	2016-17	2015-16	2015-16
6.3.1	<u>Balance with Scheduled Banks:</u>				
6.3.2	Bank of India, ISM Branch, SB A/c	57,163.00		57,163.00	
6.3.3	Canara Bank Sandvik Chair A/ C	5,45,550.00		1,64,609.00	
6.3.4	Canara Bank TEQIP Bank A/C	39,21,322.00		252,59,196.00	
6.3.5	CanBank, SDL Br., Dh. - S.B. A/c	1072,30,580.78		272,81,576.86	
6.3.6	CIL Chair, Canara Bank A/c	14,18,532.44		40,330.44	
6.3.7	ISMAANA CANARA BANK S B A/C	14,339.00		7,843.00	
6.3.8	MOLE CHAIR SB A/C Canara Bank	8,09,445.00		4,53,306.00	
6.3.9	NMDC Chair in Open Cast. Canara Bank	20,30,248.00		18,46,868.00	
6.3.10	ONGC AMN Ghosh Chair. Canara Bank	5,37,915.58		9,07,525.58	
6.3.11	Rajiv Gandhi Chair. Canara Bank	8,60,999.83		11,64,440.83	
6.3.12	Sail NMDC Chair. Canara Bank A/c	18,47,130.48		12,13,144.48	
6.3.13	SBI, ISM Br., Dhn. - Current A/c	2,31,578.53		2,32,363.90	
6.3.14	TATA Steel Chair. Canara Bank	7,95,088.00		25,31,872.00	
6.3.15	Uranium Chair Canara Bank A/c	3,57,612.00		24,903.00	
6.3.16	Sub Total (Project)	1206,57,484.64	1206,57,484.64	611,83,930.09	611,83,930.09
6.3.17	Cash Balance in hand	1,211.00	1,211.00	1,77,246.00	1,77,246.00
6.3.18	Total Cash & Bank Balances (Project)	1206,58,695.64	1206,58,695.64	613,61,176.09	613,61,176.09
A	CASH & BANK BALANCE - PLAN		276,49,994.16		865,70,741.91
B	CASH & BANK BALANCE - NON PLAN		761,86,095.74		2220,82,038.06
C	CASH & BANK BALANCE - PROJECT		1206,58,695.64		613,61,176.09
	TOTAL CASH & BANK BALANCE (A+B+C)		2244,94,785.54		3700,13,956.06



VI (B) : INVESTMENTS					
SI No	PARTICULARS	Balance as on 01.04.2016	Investments/ Renewals during the year	Investments Encashed/ adj. during the year	Balance as on 31.03.2017
Plan:					
6.1.4	Bank Fixed Deposits	500,00,000.00	0.00	0.00	500,00,000.00
6.1.5	Fixed Deposit with SBI		9270,00,000.00	8190,00,000.00	1080,00,000.00
6.1.6	Accrued Interest	1,74,860.00	47,74,100.00	1,74,860.00	47,74,100.00
6.1.7	Sub-total - Plan	501,74,660.00	9317,74,100.00	8191,74,660.00	1627,74,100.00
Non-Plan:					
6.2.12	8% GOI Bond (End. Fund Invest.)	700,00,000.00	0.00	700,00,000.00	0.00
6.2.13	Accrued Intt on End Fund FDRs	394,02,975.00	52,08,062.00	394,02,975.00	52,08,062.00
6.2.14	Accrued Interest on NP Investments	0.00	15,81,656.00	0.00	15,81,656.00
6.2.15	Endowment fund: Bank FDs	500,00,000.00	501,92,269.00	500,00,000.00	501,92,269.00
6.2.16	Endowment Fund FD - CBI, BANK MORE		1140,00,000.00		1140,00,000.00
6.2.17	Endowment Fund FD - SBI, SME Br		350,00,000.00		350,00,000.00
6.2.18	FD with SBI Main Br Dhanbad	15,43,320.00	0.00	0.00	15,43,320.00
6.2.19	GIA & School income: Bank FDs	0.00	8728,00,055.00	6975,00,000.00	1753,00,055.00
6.2.20	Scholarship funds: Bank FDs	131,38,577.00	0.00	28,00,055.00	103,38,522.00
6.2.21	Sub-total - Non Plan	1740,84,872.00	10787,82,042.00	8597,03,030.00	3931,63,884.00
Projects:					
6.3.19	Accrued Interest	501,64,072.00	947,45,097.19	501,64,072.00	947,45,097.19
6.3.20	Bank FDs & GOI Bonds	7467,71,270.65	2554,02,090.00	982,00,000.00	9039,73,360.65
6.3.21	Sub-total - Projects	7969,35,342.65	3501,47,187.19	1483,64,072.00	9987,18,457.84
A	INVESTMENTS - PLAN	501,74,660.00	9317,74,100.00	8191,74,660.00	1627,74,100.00
B	INVESTMENTS - NON PLAN	1740,84,872.00	10787,82,042.00	8597,03,030.00	3931,63,884.00
C	INVESTMENTS - PROJECT	7969,35,342.65	3501,47,187.19	1483,64,072.00	9987,18,457.84
	TOTAL INVESTMENTS (A+B+C)	10211,94,874.65	23607,03,329.19	18272,41,762.00	15546,56,441.84
VI (C) : LOANS, ADVANCES & OTHER CURRENT ASSETS:					
(a) Loans/Advances to employees:					
1. Plan:					
SI No	PARTICULARS	Balance as on 01.04.2016	Investments/ Renewals during the year	Investments Encashed/ adj. during the year	Balance as on 31.03.2017
6.1.8	House Building Advance	59,235.00	0.00	0.00	59,235.00
6.1.9	Staff Advance	4,966.00	0.00	0.00	-4,966.00
6.1.10	Sub-total (Plan)	64,201.00	0.00	0.00	64,201.00
2. Non-Plan:					
6.2.22	Cycle Advance	8,754.00	0.00	10,200.00	-1,446.00
6.2.23	Car Advance	6,21,000.00	1,86,607.00	3,34,607.00	4,73,000.00
6.2.24	Festival Advance	6,87,274.00	11,16,900.00	12,16,050.00	5,88,124.00
6.2.25	H.B. Advance (Against Rev.Fund)	50,700.00	0.00	40,100.00	10,600.00
6.2.26	House Building Advance	158,62,300.00	46,42,314.00	71,66,514.00	133,38,100.00
6.2.27	Imprest Advances	1,52,832.00	3,98,283.00	3,31,687.00	2,19,428.00



6.2.28	PC Advance	14,95,500.00	11,17,843.00	15,70,143.00	10,43,200.00
6.2.29	Scooter/Motorcycle Advance	5,77,400.00	8,19,846.00	11,55,746.00	2,41,500.00
6.2.30	Staff Advance	15,71,024.00	151,73,761.00	145,25,451.00	22,19,334.00
6.2.31	SURESH MAHATO (MAZDOOR) STAFF ADV		10,000.00	10,000.00	
6.2.32	Sub-total (Non Plan)	210,26,784.00	234,65,554.00	263,60,498.00	181,31,840.00
3. Project					
6.3.23	Staff Advance	11,35,838.52	49,00,725.00	50,19,534.50	10,17,029.02
6.3.24	Sub-total (Project)	11,35,838.52	49,00,725.00	50,19,534.50	10,17,029.02
(b) WIP / Advances / Prepaid Expenses					
1. Plan:					
6.1.11	Adv. for ISM Work-in-progress	3,91,086.00			3,91,086.00
6.1.12	Advance of books and Journals	5,779.00	0.00	0.00	5,779.00
6.1.13	Capital Work in Progress with CPWD	47399,23,104.00	6705,21,000.00	1181,00,000.00	52923,44,104.00
6.1.14	Advances to suppliers	267,89,165.00	380,40,785.00	1,51,161.00	646,58,789.00
6.1.15	Prepaid Expenses	20,21,010.00	127,09,358.00	4,96,350.00	142,34,018.00
6.1.16	WIP - Equipments		59,85,410.00	59,85,410.00	0.00
6.1.17	WIP - Power & Augmentation		40,75,958.00		40,75,958.00
6.1.18	Sub-total	47691,10,144.00	7313,32,511.00	1247,32,921.00	53757,09,734.00
2. Non Plan:					
6.2.33	Advances to suppliers	11,47,555.00	331,49,479.00	262,51,726.00	80,45,308.00
6.2.34	Adv. to foreign suppliers against LC	0.00			0.00
6.2.35	Prepaid Expenses	0.00	159,02,179.00	23,85,327.00	135,16,852.00
6.2.36	Sub-total	11,47,555.00	490,51,658.00	286,37,053.00	215,62,160.00
3. Project:					
6.3.25	Advance to suppliers	201,24,679.62	72,46,790.00	2,64,843.00	271,06,626.62
6.3.26	Sub-total	201,24,679.62	72,46,790.00	2,64,843.00	271,06,626.62
(c) - Other Deposits					
1. Plan:		Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
6.1.19	Damodar Valley Corporation	498,34,247.00	0.00	0.00	498,34,247.00
6.1.20	Grants in aid receivable from MHRD	0.00	0.00	0.00	0.00
6.1.21	Non Plan Control Account	0.00	0.00	0.00	0.00
6.1.22	SD with DVC	50,000.00	0.00	0.00	50,000.00
6.1.23	SD with IOC/Mehavir Gas, Dhanbad	78,342.00	0.00	78,342.00	0.00
6.1.24	SD with JSEB	40,05,318.00	0.00	0.00	40,05,318.00
6.1.25	Sub-total	539,67,907.00	0.00	78,342.00	538,89,565.00
2. Non Plan:		Balance as on 01.04.2016	Additions during the year	Deduction/Adj during the year	Balance as on 31.03.2017
6.2.37	CENVAT CREDIT RECEIVABLE		3,00,628.00	3,00,628.00	0.00
6.2.38	Deficit Current Year	0.00	0.00	0.00	0.00
6.2.39	Grants-in-aid Receivable	0.00	0.00	0.00	0.00
6.2.40	Plan Control Account	299,34,465.36	403,13,288.00	27,87,382.00	674,60,371.36
6.2.41	Plan Control Account(End Fund)	113,39,254.00	141,15,917.00	113,39,254.00	141,15,917.00
6.2.42	Project Control Account (End Fund)	438,56,206.51	591,13,169.58	460,16,460.00	569,52,916.09



IIT(ISM) DHANBAD ANNUAL ACCOUNTS F.Y. 2016-17

6.2.43	Project Control Account (General)	682,03,146.90	605,26,775.67	798,65,701.00	488,64,221.57
6.2.44	SD with IOC/Mahavir Gas, Dh.	1,87,400.00	0.00	1,87,400.00	0.00
6.2.45	SD with Sunita Rani Marwaha	28,500.00	0.00	0.00	28,500.00
6.2.46	SD with BSNL, Dh.	67,500.00	0.00	0.00	67,500.00
6.2.47	SD with JSEB	51,82,780.00	54,66,152.00	27,33,076.00	79,15,856.00
6.2.48	TDS Receivable	7,29,804.00	0.00	0.00	7,29,804.00
6.2.49	Sub-total	1595,29,066.77	1798,35,930.25	1432,29,901.00	1961,35,086.02
3. Project:					
6.3.27	Security Deposit with Samanta & Co	12,000.00	0.00	0.00	12,000.00
6.3.28	Plan Control Account	164,75,197.19	36,882.00	5,18,441.00	159,93,638.19
6.3.29	Sub-total	164,87,197.19	36,882.00	5,18,441.00	160,05,638.19
A	LOAN & ADVANCES (a+b+c) - PLAN	48231,42,252.00	7313,32,511.00	1248,11,283.00	54296,63,500.00
B	LOAN & ADVANCES (a+b+c) - NON PLAN	1817,03,395.77	2523,53,142.25	1982,27,452.00	2358,29,086.02
C	LOAN & ADVANCES (a+b+c) - PROJECTS	377,47,715.33	121,84,397.00	58,02,818.50	441,29,293.83
	TOTAL LOAN & ADVANCES (A+B+C)	50425,93,363.10	9958,70,050.25	3288,41,533.50	57096,21,879.85
	Total (Loans & Advances)	377,47,715.33	121,84,397.00	58,02,818.50	441,29,293.83
			2016-17		2015-16
6.10	Current Assets - NON PLAN		7051,79,065.76		5778,70,305.83
6.20	Current Assets - PLAN		56200,87,594.16		49598,87,653.91
6.30	Current Assets - PROJECTS		11636,06,447.31		8960,44,234.07
6.00	Total Current Assets		74887,73,107.23		64338,02,193.81



SCHEDULE: INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDING 31ST MARCH, 2017

SCHEDULE. VII - GRANTS IN AID				
Sl.No.	Particulars	Current Year : 2016-17		Previous Year : 2015-16
	PLAN			
7.1.1	Grants-in-aid from MHRD	10000,00,000.00		10000,00,000.00
7.1.2	Add: GIA Receivable for the year	0.00		0.00
7.1.3	Total	10000,00,000.00		10000,00,000.00
7.1.4	Less: Transferred to Capital Fund towards non-recurring expenses	7885,85,519.00	2114,14,481.00	7676,35,276.00
	NON PLAN			
7.2.1	Grants-in-aid from MHRD	8520,00,000.00		7450,00,000.00
7.2.2	Less: Transferred to Capital Fund towards non-recurring expenses	0.00	8520,00,000.00	2,13,408.00
7.1.7	Total Grants in Aid	18520,00,000.00	10634,14,481.00	17450,00,000.00
	SCH.- VIII - FEES FROM STUDENTS:			
	Non-Plan:			
		Current Year : 2016-17		Previous Year : 2015-16
8.2.1	Admission Fee - IIIF Kolkata (MBA)	0.00		18,000.00
8.2.2	Admission Fees	13,85,500.00		14,86,700.00
8.2.3	Annual Fees	60,36,000.00		61,68,800.00
8.2.4	Admission Fees - IIIF Kolkata	0.00		1,28,000.00
8.2.5	Application Fees for Admission	0.00		53,73,800.00
8.2.6	Application for PDF	4,800.00		17,500.00
8.2.7	Computer & Internet Fee	120,23,000.00		115,37,000.00
8.2.8	Course Materials Fees	5,000.00		0.00
8.2.9	DEGREE CERTIFICATE	6,22,600.00		5,56,871.00
8.2.10	Dissertation Charges	26,764.00		0.00
8.2.11	Electric Charges (Students)	59,89,043.00		55,23,410.00
8.2.12	Entrance Exam. Fees	178,87,183.00		106,91,000.00
8.2.13	EXAM FEE	131,76,101.35		132,29,750.00
8.2.14	Fee From Foreign Students	0.00		5,48,500.00
8.2.15	Fine/Penalty From Students	4,50,717.00		2,98,142.00
8.2.16	Hostel Admission Fees	9,13,500.00		10,63,000.00
8.2.17	Hostel & Mess Management Fee	26,39,500.00		42,21,000.00
8.2.18	Hostel Seat Rent	254,58,400.00		293,97,600.00
8.2.19	Hostel Seat Rent(Outside Students)	6,600.00		6,850.00
8.2.20	Identity Card	2,54,250.00		3,17,400.00
8.2.21	International EDC Annex Lodging Fee	7,73,353.00		1,98,983.00
8.2.22	Library Fees	93,48,995.95		89,92,706.75
8.2.23	Mark-sheet Fees	31,125.00		1,57,500.00
8.2.24	Medical Fees From Students	24,30,488.00		4,31,695.00
8.2.25	Migration Certificate	10,51,750.00		10,97,600.00
8.2.26	One -Time Fee From International Students	0.00		32,450.00
8.2.27	Other Academic Fee	27,89,278.84		0.00
8.2.28	OTHER FEE (INTERNATIONAL STUDENTS)	0.00		16,025.00
8.2.29	Outsider Students Training Fee	2,21,500.00		2,00,000.00



8.2.30	Registration Fee	30,25,264.00		28,34,000.00	
8.2.31	Registration Form	0.00		4,000.00	
8.2.32	School Development Fees	36,56,000.00		34,30,000.00	
8.2.33	Semester Rule Book Fee	14,83,300.00		14,06,700.00	
8.2.34	Sports Fee	23,34,400.00		27,19,500.00	
8.2.35	Student Activity Centre Fee	80,800.00		5,39,198.00	
8.2.36	Student Activity Fees	67,61,300.00		64,36,578.00	
8.2.37	Students Other Fees	15,18,039.00		100,52,440.85	
8.2.38	Student Summer Training	8,000.00		0.00	
8.2.39	THESIS EVALUATION FEE	12,50,000.00		12,40,000.00	
8.2.40	Training & Placement Support Fee	113,22,000.00		114,31,000.00	
8.2.41	Transcript Fee	3,32,700.00		9,88,950.00	
8.2.42	Tuition Fees	3227,07,250.00		2695,95,993.00	
8.2.43	TOTAL		4580,04,300.14		4122,88,622.61
SCH. - IX: INTEREST INCOME		Current Year : 2016-17		Previous Year : 2015-16	
Plan:					
Interest from Bank					
9.1.1	Interest on FDRs	141,15,917.00		113,39,254.00	
9.1.2	Less: Transfer to Non Plan Endowment	141,15,917.00	0.00	113,39,254.00	0.00
9.1.3	Miscellaneous Income	-			25,080.00
9.1.4	Sub Total (Plan)		0.00		25,080.00
Non Plan:					
A. Interest from Bank					
9.2.1	Interest on Endowment Fund	-		37,35,342.00	
9.2.2	Interest from FDRs	137,16,115.00		127,26,144.00	
9.2.3	Less : Transfer to End Fund	132,55,663.00		-164,17,942.00	
9.2.4	Less: Transfer to other funds/adjustments	4,60,452.00	-	-37,500.00	-
B. Interest from employees:					
9.2.5	(a) Interest from HBA to Employees	4,69,781.00		7,76,093.00	
9.2.6	(b) Less: Transfer to HBA	-	4,69,781.00	0.00	7,76,093.00
9.2.7	Interest on Other Adv. to Employees	2,920.00		1,30,269.00	
9.2.8	Interest from Cycle Advance	-			
9.2.9	Interest on LTC Advance	13,640.00		2,844.00	
9.2.10	Interest on PC Advance	2,78,347.00		16,214.00	
9.2.11	Interest from Scooter Advance	3,20,946.00		80,303.00	
9.2.12	Interest from Car Advance	1,22,607.00	7,38,460.00	62,463.00	2,92,093.00
9.2.13	Sub Total (Non Plan)		12,08,241.00		10,68,186.00
Project:					
Interest from Bank					
9.3.1	Interest on Investment	574,15,978.07		588,98,481.79	
9.3.2	Less: Transfer to different Projects / Funds / Other Adjustments	19,98,013.00	554,17,965.07	2,18,797.00	586,79,684.79
9.3.3	Interest on Hostel Receipts	9,81,325.00		0.00	
9.3.4	Interest on S.B. A/cs	5,55,767.88		12,33,119.00	
9.3.5	Miscellaneous Income	8,409.00	15,45,521.88	0.00	12,33,119.00
9.3.6	Sub total (Project)		569,63,486.95		599,12,803.79



9.1	INTEREST INCOME - PLAN		0.00		25,080.00
9.2	INTEREST INCOME - NON PLAN		12,08,241.00		10,68,186.00
9.3	INTEREST INCOME - PROJECT		569,63,486.95		599,12,803.79
9	TOTAL - INTEREST INCOME		581,71,727.95		610,06,069.79
SCH. - X: OTHER INCOME					
Non-Plan:					
A. Recoveries from employees:					
10.2.1	Bus fare / vehicle charges	3,28,619.00		2,88,046.00	
10.2.2	Electricity charges	29,69,858.50		28,11,337.00	
10.2.3	License fees	39,09,694.00		24,69,652.00	
10.2.4	Medical charges	29,85,152.00		31,12,434.00	
10.2.5	Water charges	5,047.00	101,98,370.50	5,535.00	86,87,004.00
B. Income from others:					
10.2.6	Application fees for employment	1,47,925.00		6,81,600.00	
10.2.7	Contribution to Seminar Received	0.00		0.00	
10.2.8	CRF Analysis Charges	4,86,217.00		3,24,480.00	
10.2.9	EDC room rent	66,87,425.00		59,68,134.00	
10.2.10	Electric charges from tenants	40,72,450.00		31,33,505.00	
10.2.11	GJLT/Perman Rent	4,97,484.00		5,98,653.00	
10.2.12	Income from BRS	3.00		19,05,202.00	
10.2.13	ISM IIF Kolkata Accommodation	4,00,624.00		29,000.00	
10.2.14	License fees from tenants	7,06,358.00		7,93,389.00	
10.2.15	Miscellaneous income	4,45,059.00		3,99,983.00	
10.2.16	Sr. Acad. Hostel Room Rent	18,10,540.33		14,84,650.00	
10.2.17	Tender Cost	10,16,030.00	162,70,115.33	10,46,950.00	163,65,546.00
10.2.18	Sub Total (Other Income)		264,68,485.83		250,52,550.00
C. Income from Consultancy /Projects:					
10.2.19	School share from Consultancy	2,19,560.00		0.00	
10.2.20	School support from Consultancy/ Projects	321,24,072.67		305,76,928.90	
10.2.21	Sub Total (Income form Projects)		323,43,632.67		305,76,928.90
10	Total School Income (N Plan)		588,12,118.50		556,29,478.90
SCH. XI - ESTABLISHMENT EXPENSES					
		Current Year : 2016-17		Previous Year : 2015-16	
Plan:					
11.1.1	Pay & Allowances	0.00	0.00	0.00	0.00
Non-Plan:					
11.2.1 Pay and Allowances:					
11.2.2	Bonus	12,06,124.00		17,72,109.00	
11.2.3	Children Education All - Non Teaching	20,82,917.00			
11.2.4	Children Education All - Teaching	29,09,901.00		44,57,333.00	
11.2.5	Conveyance/Transport Allowance	24,75,923.00		87,26,530.00	
11.2.6	Conveyance/transport Allowance Non-Teaching Emp.	23,59,156.00			
11.2.7	Conveyance/transport Allowance Teaching	40,27,143.00			
11.2.8	Dearness Allowance	766,62,137.00		2722,20,867.00	



11.2.9	Dearness Allowance Non-Teaching Emp.	717,72,475.00			
11.2.10	Dearness Allowance - Teaching Emp.	1662,18,887.00			
11.2.11	GRADE PAY	112,14,163.00		393,80,629.00	
11.2.12	Grade Pay Non-Teaching Emp.	87,99,100.00			
11.2.13	GRADE PAY - TEACHING EMP.	207,53,140.00			
11.2.14	Honorarium	51,37,737.00		29,49,756.00	
11.2.15	HONORARIUM (MOLE CHAIR)	0.00		2,43,226.00	
11.2.16	HONORARIUM (Tata Steel Chair)	2,40,000.00		77,333.00	
11.2.17	HONORARIUM (URANIUM CHAIR)	46,000.00		2,83,226.00	
11.2.18	House Rent Allowance	19,42,818.00		43,04,723.00	
11.2.19	House Rent Allowance Non-Teaching Emp.	31,14,028.00			
11.2.20	Leave Travel Concession - Non Teaching	11,23,489.00		64,91,636.00	
11.2.21	Leave Travel Concession - Teaching	60,30,071.00			
11.2.22	NPA	3,07,638.00		2,79,852.00	
11.2.23	Other Allowances	13,26,758.00		14,59,060.00	
11.2.24	Overtime	6,11,898.00		5,93,457.00	
11.2.25	P.P	3,80,054.00		3,81,849.00	
11.2.26	Pay of Non-Teaching Emp.	426,35,477.00			
11.2.27	Pay of Officers	359,44,219.00		1384,78,139.00	
11.2.28	Pay of Staff	121,39,072.00		480,48,288.00	
11.2.29	PAY OF TEACHING EMP.	1050,85,994.00			
11.2.30	PERSONAL DEVELOPMENT ALLOWANCE	133,79,814.00		219,69,456.00	
11.2.31	WAGES	441,26,005.00		364,47,947.00	
11.2.32	Washing Allowance	1,22,886.00		1,35,238.00	
11.2.33	Sub-total(N Plan)	6440,74,824.00	6440,74,824.00	5887,00,454.00	5887,00,454.00
11.2.34	Retirement Benefits:				
11.2.35	Deposit Linked Insurance	1,06,110.00		60,000.00	
11.2.36	Gratuity	3,68,777.00		176,99,423.00	
11.2.37	GRATUITY - NON TEACHING	173,50,279.00			
11.2.38	GRATUITY - TEACHING	9,93,124.00			
11.2.39	Leave Salary	4,99,444.00		188,99,400.00	
11.2.40	LEAVE SALARY - TEACHING	42,47,744.00			
11.2.41	Leave Salary Non-Teaching Emp.	70,65,141.00			
11.2.42	MATCHING CONT. TO DCPS - NON TEACHING	22,95,455.00			
11.2.43	MATCHING CONT. TO DCPS - TEACHING	169,87,406.00			
11.2.44	Matching Contribution to DCPS	90,57,574.00		231,44,082.00	
11.2.45	Matching Contribution to CPF	24,20,386.00		25,76,087.00	
11.2.46	Medical Allowance	2,78,742.00		2,67,925.00	
11.2.47	Pension	317,42,037.00		921,14,792.00	
11.2.48	PENSION NON-TEACHING EMP.	365,46,542.00			
11.2.49	PENSION TEACHING EMP	269,71,827.00			
11.2.50	Retirement TA	4,70,160.00		6,63,890.00	
11.2.51	TOTAL (Non Plan)		1574,00,748.00		1554,25,599.00



SCH. XII - ACADEMIC EXPENSES		Current Year : 2016-17		Previous Year : 2015-16	
Plan:					
a	Departmental Expenses				
12.1.1	Applied Chemistry (Contingent)	0.00		0.00	
12.1.2	Electrical Engg Deptt	0.00		0.00	
12.1.3	Environmental Sc & Engg	0.00		0.00	
12.1.4	Chemical Engg.	0.00	0.00	13,617.00	13,617.00
b	Other Educational Exp.				
12.1.5	Dual Degree Fellowship	32,23,246.00		1,06,479.00	
12.1.6	Entrance Exam. & Admission exp.	0.00		0.00	
12.1.7	Examination Section	0.00		0.00	
12.1.8	Grant for R&D Projects	200,15,000.00		0.00	
12.1.9	MCM Scholarship	465,78,000.00		0.00	
12.1.10	MESS Bill/ Pocket Money(SC/ ST)	28,29,345.00		46,75,000.00	
12.1.11	ONGC Scholarship	0.00		0.00	
12.1.12	PG Fellowship	94,88,135.00		242,94,946.00	
12.1.13	PG Contingency	20,92,779.00		14,10,528.00	
12.1.14	Post Doctral Fellowship	15,89,918.00		10,57,153.00	
12.1.15	Post Doctral Contingency	1,14,547.00			
12.1.16	Research Contingency	163,80,867.00		122,54,728.00	
12.1.17	Research Fellowship	253,11,059.00		1033,31,616.00	
12.1.18	Science Direct & E-Journals	0.00		415,07,891.00	
12.1.19	Student's Amenities and activities	0.00		0.00	
12.1.20	UGC Scholarship	0.00	1276,02,896.00	0.00	1886,38,241.00
12.1.21	Sub-total (Plan)		1276,02,896.00		1886,51,858.00
Non-Plan:		Current Year : 2016-17		Previous Year : 2015-16	
b.	Academic Expenses:				
12.2.1	ACADEMIC DATA	2,07,000.00		3,14,640.00	
12.2.2	Administrative Dept. Exp.	7,50,139.00		10,82,973.00	
12.2.3	Applied Chemistry	15,03,908.00		8,71,684.00	
12.2.4	Applied Geology	13,22,045.00		13,64,513.00	
12.2.5	Applied Geophysics	7,77,083.00		10,99,449.00	
12.2.6	Applied Mathematics	5,27,426.00		6,38,770.00	
12.2.7	Applied Physics	7,61,550.00		6,33,042.00	
12.2.8	B. Tech- Entrance Exam. & Adm. Exp.	6,63,161.00		5,31,791.00	
12.2.9	Central Library	5,04,045.00		3,22,810.00	
12.2.10	CHEMICAL ENGG. DEPT.	3,82,799.00		8,57,588.00	
12.2.11	Civil Engineering Dept.	2,49,509.00		4,29,978.00	
12.2.12	Computer Centre	3,22,923.00		2,76,370.00	
12.2.13	Computer Science & Engg.	6,37,981.00		2,74,589.00	
12.2.14	Contribution to Seminars/ Symposia	1,13,750.00			



12.2.15	Convocation / Annual Day / Exhibition / Fair	48,76,612.00		30,51,660.00	
12.2.16	Electrical Engg.	5,05,187.00		5,51,394.00	
12.2.17	Electronics & Comm Engg	7,99,508.00		5,98,767.00	
12.2.18	Entrance Examination & Admission Expenses	1,29,372.00			
12.2.19	Environmental Science & Engg	10,92,097.00		7,31,349.00	
12.2.20	Examination Remuneration	83,93,384.00		57,41,014.00	
12.2.21	Examination SEC. EXP	7,01,038.00		4,49,265.00	
12.2.22	Executive Development Centre	11,98,009.00		12,72,318.00	
12.2.23	Fuel & Mineral Engg	7,66,236.00		6,52,917.00	
12.2.24	Humanities and Social Sciences	2,20,689.00		1,49,951.00	
12.2.25	Interdisciplinary Research Contingency	0.00		36,331.00	
12.2.26	JRF- Entrance Exam. & Adm. Exp.	47,63,232.00		21,22,105.00	
12.2.27	Library Periodicals / Binding Expenses	1,76,899.00		79,080.00	
12.2.28	Management Studies	4,48,641.00		5,42,586.00	
12.2.29	MBA- Entrance Exam. & Adm. Exp.	3,36,050.00		5,68,974.00	
12.2.30	Mechanical Engg.	6,34,203.00		4,74,016.00	
12.2.31	Mining Engg	13,26,572.00		13,23,756.00	
12.2.32	Mining Machinery Engg. Deptt.	4,22,292.00		2,99,318.00	
12.2.33	M.Sc. & M.Sc. Tech - Entrance Exam. & Adm. Exp.	16,63,164.00		15,53,200.00	
12.2.34	M. Tech- Entrance Exam & Adm. Exp.	19,27,129.00		16,99,282.00	
12.2.35	Petroleum Engg	10,17,450.00		14,39,446.00	
12.2.36	Prizes to Students	6,67,850.00		19,425.00	
12.2.37	Publications	2,39,623.00		3,20,512.00	
12.2.38	Sports & Gymnasium	62,97,114.00		46,45,390.00	
12.2.39	Student Activities	32,36,159.00		25,73,369.00	
12.2.40	Student Amenities	23,21,087.00		20,38,393.00	
12.2.41	Training to Employees	73,694.00		1,71,500.00	
12.2.42	Visiting Part-Time Lecturers	12,13,792.00		9,21,610.00	
12.2.43	WORKSHOP	16,07,220.00	667,97,622.00	24,58,719.00	451,83,846.00
12.2.44	Scholarship to Students:				
12.2.45	Dual Degree Contingency	0.00		1,08,760.00	
12.2.46	Dual Degree Fellowship	0.00		15,57,627.00	
12.2.47	MCM SCHOLARSHIP	0.00		831,72,400.00	
12.2.48	Mess Bill/pocket Exp. (SC/ST)	0.00			
12.2.49	PG Contingency	0.00			
12.2.50	P G Fellowship	555,33,155.00		451,04,157.00	
12.2.51	Post Doct. Fellowship	0.00			
12.2.52	POST DOCTORATE CONTINGENCY	0.00			
12.2.53	Research Contingency	0.00			
12.2.54	Research Fellowship	2559,55,076.00		1365,12,227.00	
12.2.55	Scholarship to U.G. Students		3114,88,231.00	3,88,000.00	2668,43,371.00
12.2.56	Sub-total (N Plan)		3672,85,853.00		3120,27,217.00
	Total Academic Expenses (Plan & Non Plan)		4948,88,749.00		5006,79,075.00



SCH. XIII - ADMINISTRATIVE & GENERAL EXPENSES				
	Plan:	Current Year : 2016-17		Previous Year : 2015-16
13.1.1	Bank Charges	11,783.50		785.00
13.1.2	Electricity Charges	260,46,767.00		72,10,631.00
13.1.3	Generator Running & Maint. Exp.	19,18,629.00		17,25,855.00
13.1.4	Health Centre & Medical Care Exp.	120,36,566.25		43,70,573.00
13.1.5	Security Services	33,62,735.00		55,76,563.00
13.1.6	Staff Selection Expenses	32,52,287.00		2,56,725.00
13.1.7	Telephone/fax/Internet/Website exp.	78,45,428.00		76,24,177.00
13.1.8	Vehicle Running & Maint. Exp.	0.00		35,593.00
13.1.9	Sub-total (Plan)		544,74,195.75	268,00,902.00
	N Plan:			
13.2.1	Advertisement & Publicity	107,32,789.00		70,87,115.00
13.2.2	Audit Expenses	1,76,640.00		4,41,361.00
13.2.3	Chairman Secretarial Facility, Bhubneshwar	9,29,087.00		3,98,620.00
13.2.4	Electricity Charges	336,39,528.00		408,53,334.00
13.2.5	Generator Running & Maintenance Exp	158,11,060.00		132,65,569.00
13.2.6	HC - Medical TA Bills	10,96,420.00		14,53,253.00
13.2.7	HC-Diagnostic Laboratories	3,41,366.00		11,90,990.00
13.2.8	HC-Medical Expenses to Employee	40,16,738.00		23,19,042.00
13.2.9	HC-Other Expenses	8,43,408.00		8,64,708.00
13.2.10	HC-Purchase Of Medicine	143,83,595.00		84,59,626.00
13.2.11	HC-Referral Hospital Bills	24,51,115.00		0.00
13.2.12	HC-Remuneration to Specialist	17,26,935.00		15,91,650.00
13.2.13	Health Centre Exp. & Medical Cover to Employees/stu	1,02,679.00		54,437.00
13.2.14	Hospitality and Public Relation	19,585.00		4,17,133.00
13.2.15	ISM IIF, Kolkata	-63,755.00		1,33,114.00
13.2.16	LIASION OFFICE EXP.	0.00		2,28,653.00
13.2.17	Municipal Taxes	70,332.00		0.00
13.2.18	Postage and Telegram	3,15,264.00		9,40,778.00
13.2.19	Printing & Stationary	43,93,109.00		31,98,528.00
13.2.20	School's Membership of Professional Bodies	54,000.00		3,29,283.00
13.2.21	Security Services	416,58,162.00		307,77,313.00
13.2.22	TA for Meetings & Meeting Expenses	24,11,555.00		31,15,024.00
13.2.23	TA for Trg./Seminar/Conf. Abroad	71,407.00		2,99,707.00
13.2.24	TA for Trg/seminar/conf.in India	1,59,847.00		36,484.00
13.2.25	TA to External Experts/examiners/officials	20,07,595.00		25,24,657.00
13.2.26	TA to School Employees	13,86,845.00		15,72,655.00
13.2.27	Telephone/Telex/Fax/Internet Connectivity	57,29,347.00		43,40,561.00
13.2.28	Uniform to Staff	1,11,168.00		2,54,139.00
13.2.29	Water Supply Expenses	91,53,972.00		28,69,356.00
13.2.30	Sub-total (N Plan)		1537,29,793.00	1290,17,310.00
13	Total Administrative & General Expenses (Plan & Non Plan)		2082,03,988.75	1558,18,212.00



SCH. XIV - REPAIR & MAINTENANCE				
N. Plan				
14.2.1	Horticulture & Gardening	49,33,705.00		32,04,343.00
14.2.2	Public Health & Pest Control	3,86,263.00		31,07,078.00
14.2.3	Repair & Maint. Exp. - Civil	252,18,782.00		110,38,122.00
14.2.4	Repair & Maint. Exp. - Computer	18,23,012.00		6,56,113.00
14.2.5	Repair & Maint. Exp. - Electrical	39,87,510.00		29,05,956.00
14.2.6	Repair & Maint. Exp. - Furniture & Fixtures	5,66,086.00		2,94,348.00
14.2.7	REPAIR & MAINT. EXP - LIFT	7,66,626.00		
14.2.8	Repair & Maint. Exp. - Office & Lab. Equipment	3,52,346.00		3,26,545.00
14.2.9	Repair & Maint. Exp. - Refrig. & Air-Con.	4,95,000.00		4,95,000.00
14.2.10	Water Purification AMC ETC.	3,145.00		
14.2.11	Sub-total (N Plan)		386,32,475.00	220,29,605.00
SCH. XV - TRANSPORTATION EXPENSES				
N. Plan				
15.2.1	Vehicle Hiring Expenses	8,48,709.00		
15.2.2	Vehicle Repairing & Maintenance	6,13,737.00		
15.2.3	Vehicle Running and Maintenance Exp	26,62,733.00		23,69,608.00
15.2.4	Vehicle Running Expenses	1,30,894.00		
15.2.5	Sub-total (N Plan)		42,56,073.00	23,69,608.00
SCH. XVI - MISCELLANEOUS / OTHER EXPENSES				
Plan:				
16.1.1	ISM Expansion Plan	0.00		5,45,260.00
16.1.2	Public Health & Pest Control	0.00		10,97,498.00
16.1.3	Repair & Maintenance	293,42,155.00		153,00,735.00
16.1.4	Round off	0.00		0.00
16.1.5	Sub-total (Plan)		293,42,155.00	169,43,493.00
N Plan:				
16.2.1	BANK CHARGES	65,268.06		6,259.00
16.2.2	Contingent Expenses	22,71,844.00		19,56,619.00
16.2.3	CRF / CII REVENUE EXP.	93,865.00		82,980.00
16.2.4	Legal Expenses	6,27,361.00		7,00,873.00
16.2.5	MISCELLANEOUS EXP.	7,418.00		10,045.00
16.2.6	Rajbhasha & Other Statutory Exp.	4,87,250.00		4,93,973.00
16.2.7	Senior Academic Hostel	2,87,071.00		96,140.00
16.2.8	Welfare Measures	9,06,951.00		8,75,489.00
16.2.9	Sub-total (N Plan)		47,47,028.06	42,26,378.00
Project Account				
16.3.1	Bank Charges	10570.37		31584.00
16.3.2	Miscellaneous	0.00		25013.00
16.3.3	Total Admn Expenses Projects		10570.37	56597.00
16	Total Miscellaneous Expenses (Plan, Non Plan & Projects)		340,99,753.43	212,26,468.00

**INDIAN INSTITUTE OF TECHNOLOGY
(INDIAN SCHOOL OF MINES)
DHANBAD**



**SCHEDULES: RECEIPTS AND PAYMENTS ACCOUNTS FOR
THE YEAR ENDING 31ST MARCH, 2017**



SCHEDULES: RECEIPTS AND PAYMENTS ACCOUNTS FOR THE YEAR ENDED ON 31st MARCH, 2017

Sch No.	RECEIPTS	Non Plan 2016-17	Plan 2016-17	Project 2016-17	Total Current Year 2016-17	Total Previous Year 2015-16
R1	I. Opening Balances					
R 1	(a) Cash Balances	2,18,814.70		1,77,246.00	3,95,860.70	1,66,320.70
R.1.1	(b) Bank Balances					
R.1.2	I In Current Accounts					
R.1.3	CAN BANK PARLIAMENT STREET N. DELHI	9,537.00			9,537.00	9,841.00
R.1.4	E-PAYMENT ACCOUNT - SBI	48,786.00			48,786.00	47,078.00
R.1.5	NON PLAN A/c (10230776189)	2180,78,437.35			2180,78,437.35	1378,49,321.46
R.1.6	SBI POWER JYOTI	8,17,032.00			8,17,032.00	8,17,132.00
R.1.7	SBI Online Fee A/c					83,50,902.00
R.1.8	PLAN A/c (10230776532)		865,70,741.91		865,70,741.91	1479,40,634.41
R.1.9	PROJECTS - ISM BRANCH			2,32,363.90	2,32,363.90	2,32,363.90
	Sub-Total	2189,53,792.35	865,70,741.91	2,32,363.90	3067,56,898.16	2962,47,272.77
R.1.11	ii. In Deposit Accounts					
R.1.12	iii. In Savings Accounts					
R.1.13	Canara Bank SDL Branch, Dhn	28,953.00			28,953.00	28,953.00
R.1.14	Endowment Fund S/B Account	28,80,678.01			28,80,678.01	23,57,729.01
R.1.15	Projects-Bank of India-ISM Br			57,163.00	57,163.00	56,051.00
R.1.16	Sandvik Chair A/c-Canara Bank			1,64,609.00	1,64,609.00	13,47,536.00
R.1.17	Teqipi A/c-Canara Bank			252,59,196.00	252,59,196.00	284,15,054.00
R.1.18	Projects-Canara Bank			272,81,576.86	272,81,576.86	169,85,483.95
R.1.19	CIL Chair-Canara Bank			40,330.44	40,330.44	17,675.44
R.1.20	ISMAANA-Canara Bank			7,843.00	7,843.00	
R.1.21	Mole Chair-Canara Bank			4,53,306.00	4,53,306.00	1,27,857.00
R.1.22	NMDC Chair-Open Cash-Canara Bank			18,45,656.00	18,45,656.00	8,49,377.00
R.1.23	ONGC-AMN Ghosh Chair-Can Bank			9,07,525.58	9,07,525.58	7,02,635.58
R.1.24	Rajiv Gandhi Chair-Canara Bank			11,64,440.83	11,64,440.83	7,31,838.83
R.1.25	SAIL-NMDC Chair-Canara Bank			12,13,144.46	12,13,144.46	1,82,163.00
R.1.26	TATA Steel Chair-Canara Bank			25,31,672.00	25,31,672.00	9,49,419.00
R.1.27	Uranium Chair-Canara Bank			24,903.00	24,903.00	5,09,779.00
	Sub-Total	29,09,631.01		609,51,566.19	638,61,197.20	532,61,531.81
R2	ii. Grants Received					
R.2.1	a) From Government of India	8520,00,000.00	10000,00,000.00		18520,00,000.00	17490,00,000.00
R.2.2	b) From State Government					
R.2.3	c) From other sources (details)					
	Sub-Total	8520,00,000.00	10000,00,000.00		18520,00,000.00	17490,00,000.00
R 3	iii. Academic Receipts					
R.3.1	Fees from Students	4615,12,029.14			4615,12,029.14	3953,61,861.61
R.3.2	Academic Expenses	11,82,866.00				10,43,746.00
	Sub-Total	4626,94,895.14			4615,12,029.14	3964,05,607.61



R 4 IV. Receipts against Earmarked / Endowment Funds / Other Reserve Funds						
R.4.1	School Development Fund	98,000.00		58,614.00	1,56,614.00	1,47,301.00
R.4.2	Student Innovative Project Fund	235,92,000.00			235,92,000.00	151,83,850.00
R.4.3	Basant Scholarship Fund	300.00			300.00	
R.4.4	BENEVOLENT FUND	4,02,400.00		16,25,195.00	20,27,595.00	17,88,451.00
R.4.5	Endowment Fund (Block Grant Scheme)	477,38,553.00			477,38,553.00	472,08,342.00
R.4.6	ISM Alumni Association					16,55,271.00
R.4.7	Mess Subsidy Fund				-	1,000.00
R.4.8	Student Medical Fund	17,78,850.00			17,78,850.00	36,95,750.00
R.4.9	CHAIR FUNDS			125,66,070.00	125,66,070.00	98,80,236.00
R.4.10	Deptt. Dev. Funds			108,95,270.84	108,95,270.84	58,08,763.76
R.4.11	Professional Dev. Funds			32,50,410.84	32,50,410.84	28,73,481.00
	Sub-Total	736,10,103.00	-	283,95,560.88	1020,06,663.68	882,42,425.76
R 5 V. Receipts against Sponsored Projects / Schemes / Others						
R.5.1	Received from Teqj II	15,73,040.00			15,73,040.00	-
R.5.2	Consultancy Services - Liability			1345,71,494.45	1345,71,494.45	988,88,907.80
R.5.3	ISM R&D PROJECTS			200,15,000.00	200,15,000.00	-
R.5.4	R & D Projects			2073,80,627.00	2073,80,627.00	1752,35,101.00
R.5.5	Departmental Development Fund - Teqj II			34,00,000.00	34,00,000.00	
R.5.6	UGC Sponsored Projects			18,22,939.00	18,22,939.00	65,74,044.00
R.5.7	ICAFD - 2016			2,90,000.00	2,90,000.00	-
R.5.8	SERB - ABHAY KUMAR BHARTI			1,03,567.00	1,03,567.00	-
R.5.9	SERB-Vikram Palodiya			1,51,502.00	1,51,502.00	-
R.5.10	SME ISM STUDENT CHAPTER			4,21,000.00	4,21,000.00	-
R.5.11	Other Projects			876,17,887.35	876,17,887.35	436,80,103.00
	Sub-Total	15,73,040.00	-	4557,74,016.80	4573,47,056.80	3243,78,158.80
R 6 VI. Receipts against sponsored Fellowships and Scholarships						
R.6.1	Outside Scholarships	29,87,755.00			29,87,755.00	39,86,759.00
R.6.2	Scholarship Funds:					
R.6.3	ATLAS CAPCO SCH. FUND			43,874.00	43,874.00	-
R.6.4	Bhaskar Bhattacharya Memorial Fund			56,495.00	56,495.00	3,060.00
R.6.5	Inder Mohan Thapar Foundation Research Award			2,00,000.00	2,00,000.00	-
R.6.6	ISM AANA Scholarship Award			3,41,825.00	3,41,825.00	3,23,117.00
R.6.7	L J JHONSON AWARD			17,550.00	17,550.00	
R.6.8	Late Chitra Bhattacharya Memorial Award					3,30,000.00
R.6.9	NAA Scholarship Fund			22,500.00	22,500.00	1,99,338.00
R.6.10	Nagendra Kumar Memorial Award Fund			8,00,000.00	8,00,000.00	-
R.6.11	Poonam (Khanna) Singh Endowment Mem. Fund			1,50,000.00	1,50,000.00	1,00,000.00
R.6.12	Reruka Rajhans Memorial Gold Medal Fund			27,072.00	27,072.00	-
R.6.13	Smt. Sneh Lata Srivastava Memorial Gold Medal			1,521.00	1,521.00	-
R.6.14	Vishesvaraya Ph.D Scheme for Elec. & IT			16,20,300.00	16,20,300.00	8,12,500.00
	Sub-Total	29,87,755.00	-	32,81,137.00	62,68,892.00	57,34,774.00



R 7	VIII. Interest received on:					
R.7.1	a) Bank Deposits					-
R.7.2	Interest from Fixed Deposits	121,34,459.00	95,16,477.00	146,66,753.00	363,17,689.00	1000,71,111.09
R.7.3	b) Loans & Advances					-
R.7.4	Interest from Advance to Employees	1,87,289.00			1,87,289.00	2,02,457.00
R.7.5	c) Savings Bank Accounts					-
R.7.6	Hostel Receipts			9,81,325.00	9,81,325.00	-
R.7.7	Other S/B Accounts			10,67,884.88	10,67,884.88	12,42,569.00
	Sub-Total	-	-	20,49,209.88	20,49,209.88	12,42,569.00
R 8	IX. Investments encashed					
R.8.1	8% GOI BOND (End. Fund Investment)	700,00,000.00	-	-	700,00,000.00	-
	Sub-Total	700,00,000.00	-	-	700,00,000.00	-
R 9	X. Term Deposits with Schedules Banks encashed					
R.9.1	Endowment Fund Investment					3700,97,746.00
R.9.2	GIA & School Income Investments	6975,00,000.00	8190,00,000.00		15165,00,000.00	21508,00,000.00
R.9.3	Projects Investments			800,00,000.00	800,00,000.00	2512,55,800.00
	Sub-Total	6975,00,000.00	8190,00,000.00	800,00,000.00	15965,00,000.00	27721,63,646.00
R 10	XI. Other Income (including Prior Period Income)					
R.10.1	(i) Income From Projects					
R.10.2	School Share Charges	2,19,560.00			2,19,560.00	17,02,143.00
R.10.3	School Support Charges	63,79,608.00			63,79,608.00	-
R.10.4	(ii) Other Income					
R.10.5	Recoveries From Employees	101,80,469.50			101,80,469.50	86,59,264.00
R.10.6	CRF Analysis Charges	4,86,717.00			4,86,717.00	3,31,980.00
R.10.7	Appl. Fee for Admission/ Entrance Exam.	-			-	-
R.10.8	Application Fees for Employment	1,48,025.00			1,48,025.00	6,81,700.00
R.10.9	EDC Room Rent	26,69,800.00			26,69,800.00	20,42,900.00
R.10.10	Electricity Charges From Tenant	41,22,450.00			41,22,450.00	31,33,505.00
R.10.11	GJLT, PENMAN, LHC RENT	5,39,084.00			5,39,084.00	6,88,100.00
R.10.12	Income From BRS	3.00			3.00	20,85,969.00
R.10.13	ISM-EIF, Kolkata Accommodation	49,000.00			49,000.00	-
R.10.14	License Fee From Tenants	7,06,358.00			7,06,358.00	7,83,789.00
R.10.15	Miscellaneous income	4,38,280.00		6,409.00	4,46,889.00	4,70,523.00
R.10.16	SAH Room Rent	16,36,100.33			16,36,100.33	14,03,835.00
R.10.17	TENDER COST	10,16,030.00			10,16,030.00	10,46,950.00
	Sub-Total	285,91,484.83	-	8,409.00	285,99,893.83	230,10,658.00
R 11	XII. Deposits and Advances					
R.11.1	(A) Deposits (Asset)					
R.11.2	Security Deposit with JSEB	27,33,076.00			27,33,076.00	-
R.11.3	Security Deposit with Mahabir Gas, Dhn	1,87,400.00			1,87,400.00	-
R.11.4	(B) Deposits (Liabilities)					
R.11.5	EARNEST MONEY DEPOSIT	199,37,071.00	70,43,587.00		229,80,668.00	208,67,777.00
R.11.6	SECURITY DEPOSIT	61,06,008.00		15,18,311.00	76,24,319.00	58,75,426.00



R.11.7	(B) Loans & Advances (Asset)					
R.11.8	Advances To Suppliers/ Contractors	30,000.00	36,365.00	2,35,317.00	3,03,882.00	2,92,929.00
R.11.9	Advances to Employees					
R.11.10	H.B.Advance (Non-Plan)	41,26,314.00			41,26,314.00	42,13,806.00
R.11.11	Staff Advance	81,25,175.00		22,31,344.00	103,56,519.00	150,56,810.50
R.11.12	Car Advance	2,70,607.00			2,70,607.00	2,47,963.00
R.11.13	IMPREST ADVANCE	8,127.00			8,127.00	21,512.00
R.11.14	PERSONAL COMPUTER ADV.	9,21,843.00			9,21,843.00	9,97,439.00
R.11.15	Scooter Motor Cycle Adv.	7,39,846.00			7,39,846.00	9,45,640.00
R.11.16	Cycle Advance	10,200.00			10,200.00	18,100.00
R.11.17	Festival Advance	12,16,050.00			12,16,050.00	10,20,225.00
R.11.18	Suresh Mahato (Mazdoor) Staff Advance	10,000.00			10,000.00	-
R.11.19	(C) Sundry Debtors					
R.11.20	Plan Control A/C	27,87,382.00		5,00,000.00	32,87,382.00	527,92,944.00
R.11.21	Plan Control Account - Endowment Interest Receivable	113,39,254.00			113,39,254.00	
R.11.22	Project Control A/c (Endowment Fund)	460,16,460.00			460,16,460.00	503,87,426.00
R.11.23	Project Control A/c (General)	797,47,557.00			797,47,557.00	818,79,395.00
	Sub-Total	1803,12,370.00	70,81,962.00	44,84,972.00	1918,79,304.00	2146,15,392.50
R.12	XIII. Miscellaneous Receipts including Statutory Receipts					
R.12.1	(A) Statutory Receipts					
R.12.2	(i) Statutory Liabilities - Employees					
R.12.3	Income Tax (Employees)	729,92,519.00	23,638.00	174,43,502.00	904,59,659.00	711,15,952.00
R.12.4	Jharkhand State Professional Tax	10,68,730.00			10,68,730.00	10,18,412.00
R.12.5	(ii) Statutory Liabilities - Parties					
R.12.6	Income Tax (Contractors/Suppliers)	35,33,047.00	25,33,748.00	2,12,317.00	62,79,112.00	70,54,488.00
R.12.7	Income Tax (Professional Services)	5,69,936.00	8,27,287.00	19,440.00	14,16,643.00	7,61,937.00
R.12.8	Labour Welfare	2,74,118.00	5,70,278.00	80.00	8,44,476.00	5,11,388.00
R.12.9	SALES TAX @ 4%	11,89,997.00	22,81,106.00	321.00	34,71,424.00	20,51,715.00
R.12.10	Service Tax	16,34,270.00		184,08,946.00	200,43,216.00	166,34,292.00
R.12.11	(iii) Endowment Fund Income Tax (Contractors)	6,61,970.00			6,61,970.00	7,75,927.00
R.12.12	(v) Plan Income Tax A/c					
R.12.13	Plan Income Tax (Contractors)	22,10,022.00			22,10,022.00	16,88,061.00
R.12.14	Plan Income Tax (Employees)	2,500.00			2,500.00	-
R.12.15	PLAN INCOME TAX (PROFESSION)	6,91,741.00			6,91,741.00	1,10,958.00
R.12.16	PLAN SALES TAX A/C	77,187.00			77,187.00	-
R.12.17	(vi) Project - Taxes					
R.12.18	Project Income Tax A/c (Employ)	149,64,983.00			149,64,983.00	119,96,792.00
R.12.19	Project Income Tax (Contractors)	1,26,146.00			1,26,146.00	19,846.00
R.12.20	PROJECT SALES TAX A/C	321.00			321.00	-
R.12.21	Project Service Tax A/c	179,05,434.00			179,05,434.00	138,51,126.00
R.12.22	(vii) J VAT			1,49,784.00	1,49,784.00	-
R.12.23	(B) Misc Receipts					
R.12.24	B R S Liability	66,59,088.01		8,14,703.49	74,73,791.50	6,44,697.78
R.12.25	Misc. Receipts (Liab)	26,89,109.00			26,89,109.00	10,81,613.00
	Sub-Total	1272,51,118.01	62,36,037.00	370,49,093.49	1705,36,248.50	1283,17,204.78



R 13 XIV. Any Other Receipts						
R.13.1 Current Liabilities to Employees						
R.13.2	Can Bank, SDL Br. Loan to Employees	95,94,895.00			95,94,895.00	87,84,763.00
R.13.3	Children Act. Centre Subscription	1,58,200.00			1,58,200.00	1,18,400.00
R.13.4	Court Attachment Deduction	27,000.00			27,000.00	32,700.00
R.13.5	GIS Premium	27,71,264.00			27,71,264.00	15,53,466.00
R.13.6	LIC Premium	59,57,704.00			59,57,704.00	57,28,043.00
R.13.7	Post Office CTD/RO	3,97,300.00			3,97,300.00	3,98,200.00
R.13.8	P M Relief Fund				-	66,250.00
R.13.9	Relief Fund (Death Benefit Payable)				-	70,700.00
R.13.10	Scolomin Club	3,05,950.00			3,05,950.00	3,00,450.00
R.13.11	Staff Recreation Club	3,39,100.00			3,39,100.00	3,22,600.00
R.13.12	CPF Subscription & Loan Recovery	134,30,100.00			134,30,100.00	137,12,000.00
R.13.13	DCPS SUBSCRIPTION	281,66,084.00			281,66,084.00	238,01,077.00
R.13.14	GPF Subscription & Loan Recovery	427,20,400.00			427,20,400.00	410,64,160.00
R.13.15	P.F. Control A/c			6,05,503.00	6,05,503.00	111,25,740.00
R.13.16 Current Liabilities to Students						
R.13.17	Executive MBA	29,26,672.00			29,26,672.00	28,23,341.00
R.13.18	IIIF Kolkata Mech. Engg.	19,20,000.00			19,20,000.00	2,60,824.00
R.13.19	IIIF Kolkata ECE	5,70,000.00			5,70,000.00	-
R.13.20	IIIF Kolkata Elec. Engg.	31,20,000.00			31,20,000.00	-
R.13.21	IIIF Kolkata CSE	14,09,000.00			14,09,000.00	3,91,148.00
R.13.22	Alumni Subscription	20,74,400.00			20,74,400.00	11,10,100.00
R.13.23	Basant Subscription	16,59,250.00			16,59,250.00	14,21,700.00
R.13.24	DST/Inspire Scholarship				-	94,40,000.00
R.13.25	Institute Ammenities Deposit	19,67,000.00			19,67,000.00	-
R.13.26	Library Security Deposit	49,17,500.00			49,17,500.00	-
R.13.27	SRUJAN				-	3,47,000.00
R.13.28	STUDENT CAUTION MONEY	33,95,400.00			33,95,400.00	185,40,000.00
R.13.29	Student Insurance Scheme	66,85,984.00			66,85,984.00	67,16,404.00
R.13.30	Students Loan	19,200.00			19,200.00	1,81,700.00
R.13.31	Student Uniform Deposit	32,76,600.00			32,76,600.00	1,08,400.00
R.13.32 Current Liabilities - Inter Unit						
R.13.33	Non Plan Control Account		40,00,000.00	2,76,396.00	42,76,396.00	205,99,281.00
R.13.34	EDC Room Rent			1,02,035.00	1,02,035.00	1,61,063.00
R.13.35	Electric Charges for CIL Chair			14,033.00	14,033.00	11,637.00
R.13.36	Electric Charges for Rajiv Gandhi Chair			11,269.00	11,269.00	8,002.00
R.13.37	Electric Charges From NMDC CHAIR			6,101.00	6,101.00	10,810.00
R.13.38	ISM BASANT A/C			11,20,971.75	11,20,971.75	25,000.00
R.13.39	Licence Fee - Plan - Inter Unit Liability				-	3,200.00
R.13.40	Licence Fee From NMDC CHAIR			12,248.00	12,248.00	-
R.13.41	Medical Charges for CIL Chair			6,000.00	6,000.00	6,500.00
R.13.42	Medical Charges From NMDC Chair			6,726.00	6,726.00	12,903.00
R.13.43	Medical Charges From Rajiv Gandhi Chair			5,500.00	5,500.00	16,000.00
R.13.44	Medical Charges From Sail NMDC CHAIR FUND			5,500.00	5,500.00	7,087.00



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R.13.45	Medical Charges From Sandvik Chair			5,500.00	5,500.00	8,571.00
R.13.46	Plan Control A/c				-	1,33,270.00
R.13.47	School Support Charges			227,74,739.67	227,74,739.67	200,25,554.04
R.13.48	Scolomin Club for CIL Chair			1,200.00	1,200.00	1,200.00
R.13.49	Scolomin Club for Rajeev Ghandhi Chair			1,100.00	1,100.00	1,300.00
R.13.50	Vehicle Charges for CIL Chair			500.00	500.00	470.00
R.13.51	Vehicle Charges of NMDC CHAIR			530.00	530.00	330.00
R.13.52	Deduction in Fixed Assets					
R.13.53	Augmentation of Power & Water		4,98,270.00		4,98,270.00	-
R.13.54	Books & Journals		28,28,130.00		28,28,130.00	13,07,245.00
R.13.55	Equipment & Lab. Development				-	2,28,216.00
R.13.56	ELD - CIVIL ENGG. DEPT.		52,000.00		52,000.00	
R.13.57	ELD - CRF		3,906.00		3,906.00	
R.13.58	HOSTELS					
R.13.59	Amber Hostel - Mess Fee			279,49,617.00	279,49,617.00	-
R.13.60	Diamond Hostel - Mess Fees			69,60,403.00	69,60,403.00	-
R.13.61	Emerald Hostel - Mess Fee			63,73,635.00	63,73,635.00	-
R.13.62	Jasper Hostel - Mess Fees			437,49,702.00	437,49,702.00	-
R.13.63	Opal Hostel - Mess Fees			74,88,129.00	74,88,129.00	-
R.13.64	Ruby Hostel - Mess Fees			123,83,052.00	123,83,052.00	-
R.13.65	Sapphire Hostel- Mess Fee			110,07,266.00	110,07,266.00	-
R.13.66	Topaz Hostel - Mess Fee			68,89,932.00	68,89,932.00	-
R.13.67	Hostels Mess Charges			60,000.00	60,000.00	
R.13.68	Other Liabilities					
R.13.69	Suspense Account				-	100,79,130.00
R.13.70	Liability towards Convocation - Deceased Labour				-	15,43,320.00
R.13.71	Unpaid				-	16,800.00
R.13.72	Lok Sabha Election 2014 - Panchayat				-	2,65,800.00
R.13.73	Expenses					
R.13.74	Administrative & General Expenses	19,82,840.00	44,935.75		20,27,775.75	19,83,191.00
R.13.75	Other Expenses - Miscellaneous	9,602.87		1,504.00	11,106.87	234.00
R.13.76	Establishment Expenses	63,66,570.00			63,66,570.00	60,58,254.00
R.13.77	Repairs & Maintenance					8,000.00
	Total	1481,68,015.87	74,27,241.75	1478,18,092.42	3034,14,350.04	2109,37,714.04



	PAYMENTS	Non Plan 2016-17	Plan 2016-17	Project 2016-17	Total Current Year 2016-17	Total Previous Year 2015-16
P 1	I. Expenses:					
P.1.1	a) Establishment Expenses	7573,00,331.00			7573,00,331.00	7008,39,422.00
P.1.2	b) Academics Expenses	3912,55,174.00	1007,62,994.00		4920,18,168.00	5002,74,253.00
P.1.3	c) Administrative Expenses	1639,87,106.00	454,89,130.50		2094,76,236.50	1561,96,907.00
P.1.4	d) Transportation Expenses	40,59,516.00			40,59,516.00	191,60,491.00
P.1.5	e) Other expenses - Miscellaneous	43,64,800.93	245,76,145.00	12,074.37	289,53,020.30	38,89,004.00
P.1.6	f) Repairs & Maintenance	358,58,291.00			358,58,291.00	213,42,938.00
P 2	II. Payments against Earmarked / Endowment Funds / Other Reserve Funds					
P.2.1	Student Innovative Project Fund	1,45,000.00			1,45,000.00	30,000.00
P.2.2	BENEVOLENT FUND	35,43,800.00			35,43,800.00	10,61,000.00
P.2.3	Budhwant Mrig Mem. Edn. Sch. Fund	16,000.00			16,000.00	1,04,000.00
P.2.4	Ishan Rajbanshi Mem. Scholarshi	14,000.00			14,000.00	30,000.00
P.2.5	ISM Alumini Association Award Fund	3,46,063.00			3,46,063.00	-
P.2.6	ISS SCHOLARSHIP FUND	6,000.00			6,000.00	9,000.00
P.2.7	Student Medical Fund	9,050.00			9,050.00	18,500.00
P.2.8	CHAIR FUNDS			86,30,721.00	86,30,721.00	97,49,232.00
P.2.9	Deptt. Dev. Funds			48,54,435.00	48,54,435.00	48,77,990.00
P.2.10	Professional Dev. Funds			8,63,757.00	8,63,757.00	8,87,512.00
	Sub-Total	40,79,913.00	-	143,48,913.00	184,28,626.00	166,67,234.00
P 3	III. Payments against sponsored Projects / Schemes					
P.3.1	Consultancy Services - Liability			934,15,463.35	934,15,463.35	768,88,419.80
P.3.2	ISM R&D PROJECTS			163,89,619.00	163,89,619.00	101,17,436.00
P.3.3	R & D Projects			1510,74,541.00	1510,74,541.00	1051,21,888.00
P.3.4	Departmental Development Fund - Teglp II			11,54,029.00	11,54,029.00	
P.3.5	UGC Sponsored Projects			60,41,557.00	60,41,557.00	101,03,897.00
P.3.6	OTHERS - PROJECTS			265,09,536.25	265,09,536.25	303,97,001.00
	Sub-Total	-	-	2945,84,745.60	2945,84,745.60	2326,28,241.80
P 4	IV. Payments against Sponsored Fellowships / Scholarships					
P.4.1	Outside Scholarships	29,90,712.00			29,90,712.00	41,18,628.00
P.4.2	<u>SCHOLARSHIP FUND</u>					
P.4.3	ATLAS CAPCO SCH. FUND			12,000.00	12,000.00	18,000.00
P.4.4	Bhaskar Bhattacharya Memorial Fund					33,330.00
P.4.5	Inderjeet & Satyawat Bodhwar Scholarship					4,000.00
P.4.6	ISM AANA Scholarship Award			3,35,288.00	3,35,288.00	3,15,274.00
P.4.7	Late Mrs. Chitra Bhattacharya Memorial Fund			17,000.00	17,000.00	-
P.4.8	Mata Gurdev Kaur Memorial Fund			5,500.00	5,500.00	1,000.00
P.4.9	Mital Sen Gold Medal Memorial End. Fund			22,900.00	22,900.00	50,000.00
P.4.10	Nagendra Kumar Memorial Award Fund			8,00,000.00	8,00,000.00	-
P.4.11	Nirja Sahay Memorial Fund			10,000.00	10,000.00	-
P.4.12	Paritosh & Patirri End. Fund			7,000.00	7,000.00	7,000.00



P.4.13	Poonam (Khanna) Singh Endowment Mem. Fund			50,000.00	50,000.00	2,00,000.00
P.4.14	Prof N L Sharma Mem Fund					3,885.00
P.4.15	Renuka Rajhans Memorial Gold Medal Fund			10,000.00	10,000.00	-
P.4.16	S.L Sehgal Scholarship			4,000.00	4,000.00	8,000.00
P.4.17	Smt. Sneh Lata Srivastava Memorial Gold Medal			17,000.00	17,000.00	-
P.4.18	Vishesvaraya Ph.D Scheme for Elec. & IT			15,51,806.00	15,51,806.00	-
	Sub-Total	29,90,712.00	-	28,42,494.00	58,33,206.00	47,59,317.00

P 5	VI. Term Deposits with Scheduled Banks					
P.5.1	GIA - FD with SBI, ISM Br. (School Income)	8700,00,000.00	9270,00,000.00	-	17970,00,000.00	22023,43,320.00
P.5.2	ENDOWMENT FUND FIXED DEPOSITS	1490,00,000.00	-	-	1490,00,000.00	852,63,482.00
P.5.3	Projects Investments					
P.5.4	Central Bank of India - FD - Barland	-	-	-	-	726,37,489.00
P.5.5	FD with Canara Bank Seraidhela, (TATA STEEL)	-	-	30,00,000.00	30,00,000.00	-
P.5.6	FD with Canara Bank Seraidhela (Tata Steel End. Fun	-	-	100,00,000.00	100,00,000.00	-
P.5.7	Canara Bank, SDL Br. - FDR	-	-	1225,00,000.00	1225,00,000.00	2562,76,048.00
P.5.8	Late Chitra Bhattacharya Fund	-	-	-	-	3,00,000.00
P.5.9	FD with Canara Bank - AMN GHOSH ONGC CHAIR	-	-	12,00,000.00	12,00,000.00	-
	Sub-Total	10190,00,000.00	9270,00,000.00	1367,00,000.00	20827,00,000.00	26168,20,339.00

P 6	VII. Expenditure on Fixed Assets and Capital Works-in-Progress					
P.6.1	Furniture & Fixtures	54,364.00	107,94,642.00		106,59,006.00	133,88,816.00
P.6.2	ISM - IIIF, Kolkata -Endowment Fund Building	40,72,769.00			40,72,769.00	78,57,978.00
P.6.3	ISM - IIIF, New Delhi -Endowment Fund Building					212,16,253.00
P.6.4	Student Amenities		2,42,100.00		2,42,100.00	3,56,184.00
P.6.5	VEHICLES		6,52,499.00		6,52,499.00	97,131.00
P.6.6	Augmentation of Power & Water		97,05,212.00		97,05,212.00	132,18,736.00
P.6.7	Books & Journals		365,73,452.00		365,73,452.00	264,42,116.00
P.6.8	Communication System		32,30,988.00		32,30,988.00	36,31,809.00
P.6.9	Computers, Peripherals & Internet Equipment		126,74,398.00		126,74,398.00	75,05,455.00
P.6.10	Equipment & Lab. Development		687,53,428.00		687,53,428.00	1461,65,770.00
P.6.11	Office Automation		6,27,557.00		6,27,557.00	
P.6.12	Road & Building		405,94,208.00		405,94,208.00	137,00,740.00
P.6.13	Science Direct and E Journal (Capital)		131,75,250.00		131,75,250.00	
	Sub-Total	41,37,133.00	1950,23,734.00	-	1991,60,867.00	2535,81,090.00

P 7	VIII. Other Payments including statutory payments					
P.7.1	(A) Statutory Payments					
P.7.2	(i) Statutory Liabilities - Employees					
P.7.3	Income Tax (Employees)	729,92,519.00	23,838.00	152,39,158.00	682,55,315.00	711,24,192.00
P.7.4	Income Tax Employees, CII Chair			2,81,144.00	2,81,144.00	
P.7.5	Income Tax From Employees, Rajeev Gandhi Chair			4,49,268.00	4,49,268.00	



P.7.6	Income Tax From NMDC Chair (Employees)			5,80,743.00	5,80,743.00	
P.7.7	Income Tax From Sandvik Chair (Employees)			5,25,303.00	5,25,303.00	
P.7.8	Income Tax From Teqip-II (Employees)			4,635.00	4,635.00	
P.7.9	Income Tax SAIL, NMDC CHAIR (EMPLOYEES)			3,08,402.00	3,08,402.00	
P.7.10	Jharkhand State Professional Tax	10,68,730.00			10,68,730.00	10,18,512.00
P.7.11	(II) Statutory Liabilities - Parties					
P.7.12	Income Tax (Contractors/Suppliers)	29,71,691.00	22,10,022.00	1,99,045.00	53,80,758.00	72,28,194.00
P.7.13	INCOME TAX FROM TEQIP-II (Contractors)			13,823.00	13,823.00	16,261.00
P.7.14	Labour Welfare	2,19,488.00	4,46,183.00	80.00	6,65,751.00	5,11,388.00
P.7.15	SALES TAX @ 4%	10,64,677.00	20,75,549.00	321.00	31,40,547.00	20,51,715.00
P.7.16	Service Tax	16,34,270.00		179,95,355.00	196,29,625.00	166,34,733.00
P.7.17	Income Tax - Professional Servs	5,42,376.00	7,19,568.00	19,440.00	12,81,384.00	7,79,586.00
P.7.18	Endowment Fund Income Tax (Contractors)	6,61,970.00			6,61,970.00	7,75,927.00
P.7.19	(III) Plan - Tax					
P.7.20	Plan Income Contractors	22,10,022.00			22,10,022.00	16,88,061.00
P.7.21	Plan Income Tax (Employees)	2,500.00			2,500.00	-
P.7.22	PLAN INCOME TAX (PROFESSION)	6,91,741.00			6,91,741.00	1,10,958.00
P.7.23	PLAN SALES TAX A/C	77,187.00			77,187.00	-
P.7.24	(iv) Projects - Tax					
P.7.25	Project Income Tax A/c (Employees)	149,64,983.00			149,64,983.00	119,96,792.00
P.7.26	Project Income Tax (Contractors)	1,26,146.00			1,26,146.00	19,846.00
P.7.27	PROJECT SALES TAX A/C	321.00			321.00	-
P.7.28	Project Service Tax A/c	179,05,434.00			179,05,434.00	138,51,126.00
P.7.29	(v) J VAT					
P.7.30	(B) Misc Payments					
P.7.31	B R S Liability	3,04,241.24	14,703.00	1,28,701.00	4,47,645.24	
P.7.32	Misc. Receipts (Liab)	24,00,207.00			24,00,207.00	12,12,005.00
	Sub-Total	1198,38,603.24	54,89,663.00	358,96,202.00	1612,23,368.24	1290,17,296.00
P 8	IX. Refunds of Grants					
P 9	X. Deposits and Advances					
P.9.1	Deposits (Assets)					
P.9.2	Security Deposit with JSEB	54,66,152.00			54,66,152.00	13,05,780.00
P.9.3	Deposits (Liabilities)					
P.9.4	EARNEST MONEY DEPOSIT	132,04,730.00	44,39,760.00		176,44,490.00	189,05,882.00
P.9.5	SECURITY DEPOSIT	65,99,707.00			65,99,707.00	47,44,626.00
P.9.6	Loans & Advances (Asset)					
P.9.7	Advances To Suppliers/ Contractors	331,49,479.00	5935,61,785.00	72,46,790.00	6339,58,054.00	9053,52,373.00
P.9.8	Advances to Employees					
P.9.9	H.B. Advance (Non-Plan)	12,63,000.00			12,63,000.00	33,40,000.00
P.9.10	Staff Advance	151,33,792.00		47,75,725.00	199,09,517.00	226,47,213.00
P.9.11	Car Advance					3,60,000.00
P.9.12	IMPREST ADVANCE	3,96,485.00			3,96,485.00	3,09,000.00
P.9.13	PERSONAL COMPUTER ADV.	2,01,181.00			2,01,181.00	4,90,000.00



P.9.14	Scooter Motor Cycle Adv.	80,000.00			80,000.00	1,20,000.00
P.9.15	Cycle Advance					9,000.00
P.9.16	Festival Advance	11,16,900.00			11,16,900.00	10,98,000.00
P.9.17	SURESH MAHATO (MAZDOOR) STAFF ADVANCE	10,000.00			10,000.00	-
P.9.18	Sundry Debtors					
P.9.19	CENVAT CREDIT RECEIVABLE	3,00,628.00			3,00,628.00	
P.9.20	Plan Control A/C	40,00,000.00		18,441.00	40,18,441.00	103,59,295.00
P.9.21	Project Control A/c (Endowment Fund)	21,60,253.00			21,60,253.00	10,84,500.00
P.9.22	Project Control A/c (General)	107,72,550.00			107,72,550.00	11,12,696.00
	Sub-Total	938,54,857.00	5980,01,545.00	120,40,956.00	7038,97,358.00	9712,38,565.00
P.10	XI. Other Payments					
P.10.1	(A) Outstanding Expenses					
P.10.2	Outstanding Pay and Allowance	434,89,552.00			434,89,552.00	420,81,470.00
P.10.3	(B) Current Liabilities to Employees					
P.10.4	Can Bank, SDL Br. Loan to Employees	95,94,895.00			95,94,895.00	87,84,763.00
P.10.5	Children Act. Centre Subscription	1,58,950.00			1,58,950.00	1,18,400.00
P.10.6	Court Attachment Deduction	27,000.00			27,000.00	32,700.00
P.10.7	GIS Premium	25,87,607.00			25,87,607.00	15,70,702.00
P.10.8	LIC Premium	59,57,691.00			59,57,691.00	57,29,031.00
P.10.9	P M Relief Fund					66,250.00
P.10.10	Post Office CTD/RD	3,97,300.00			3,97,300.00	3,99,200.00
P.10.11	SBI Loan Recovery	7,030.00			7,030.00	-
P.10.12	Scolomn Club	3,11,450.00			3,11,450.00	3,00,350.00
P.10.13	Scolomn Club for CII Chair			800.00	800.00	-
P.10.14	Scolomn Club for Rajeev Gandhi Chair			700.00	700.00	-
P.10.15	Staff Recreation Club	3,39,100.00			3,39,100.00	3,22,800.00
P.10.16	Vehicle Charges - Tegip II					447.00
P.10.17	Undisbursed Pay					69,849.00
P.10.18	CPF Subscription & Loan Recovery	123,03,100.00			123,03,100.00	137,12,000.00
P.10.19	DCPS SUBSCRIPTION	283,44,748.00			283,44,748.00	233,69,357.00
P.10.20	GPF Subscription & Loan Recovery	391,47,220.00			391,47,220.00	410,64,160.00
P.10.21	P.F. Control A/c	46,86,180.00		6,06,503.00	52,93,683.00	100,00,000.00
P.10.22	(C) Current Liabilities to Students					
P.10.23	Executive MBA	29,38,341.00			29,38,341.00	27,95,338.00
P.10.24	IIF Kolkata Mech. Engg	17,70,882.00			17,70,882.00	80,013.00
P.10.25	IIF Kolkata ECE	5,44,951.00			5,44,951.00	54,401.00
P.10.26	IIF Kolkata Elec. Engg.	18,00,601.00			18,00,601.00	1,18,716.00
P.10.27	IIF Kolkata CSE	10,35,097.00			10,35,097.00	59,316.00
P.10.28	Alumni Subscription	32,00,400.00			32,00,400.00	27,500.00
P.10.29	Basant Subscription	16,67,425.00			16,67,425.00	13,98,700.00
P.10.30	Institute Amenities Deposit	47,000.00			47,000.00	-
P.10.31	ISM Alumni Fund					6,55,271.00
P.10.32	ISM 89 Silver Jubilee Fund	40,84,761.00			40,84,761.00	-
P.10.33	Library Security Deposit	1,15,000.00			1,15,000.00	-
P.10.34	STUDENT CAUTION MONEY	99,95,980.00			99,95,980.00	77,35,000.00
P.10.35	Student Insurance Scheme	54,21,416.00			54,21,416.00	61,96,488.00

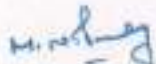


P.10.36	Students Loan	19,200.00			19,200.00	2,15,700.00
P.10.37	Student Uniform Deposit	4,80,870.00			4,80,870.00	20,79,000.00
P.10.38	PRIZE TO STUDENT (DUE) / Unpaid	1,500.00			1,500.00	8,950.00
P.10.39	(D) Current Liabilities - Inter Unit					
P.10.40	Project Control A/c		5,00,000.00		5,00,000.00	
P.10.41	Non Plan Control Endowment Fund		113,39,254.00	438,56,207.00	551,95,461.00	493,02,926.00
P.10.42	Non Plan Control A/c			1683,27,783.00	1683,27,783.00	1234,58,739.00
P.10.43	ISM Basant A/c			11,20,971.75	11,20,971.75	
P.10.44	(E) Hostels					
P.10.45	Amber Hostel - Mess Fee			21,03,102.00	21,03,102.00	
P.10.46	Sapphire Hostel- Mess Fee			17,91,273.00	17,91,273.00	
P.10.47	(F) Others					
P.10.48	Vidhan Sabha Election Panchayat					2,48,200.00
P.10.49	Suspense Account					100,79,130.00
P.10.50	Fees from Students	211,83,313.00			211,83,313.00	122,23,113.00
P.10.51	Income from Projects	17,945.00			17,945.00	-
P.10.52	Other Income	2,21,758.00			2,21,758.00	3,80,692.00
P.10.53	Interest Income	2,79,772.00			2,79,772.00	33,015.00
	Sub-Total	2021,00,035.00	118,39,254.00	2178,06,339.75	4318,25,628.75	3637,59,687.00
P.11 XII. Closing Balances						
P.11.1	(a) Cash in hand	39,275.20		1,211.00	40,486.20	3,95,860.70
P.11.2	(b) Bank Balances					
P.11.3	i. In Current Accounts					
P.11.4	CAN BANK PARLIAMENT STREET - N. DELHI	9,537.00			9,537.00	9,537.00
P.11.5	E - PAYMENT ACCOUNT - SBI	48,022.50			48,022.50	48,786.00
P.11.6	SBI DHN NON PLAN ACCOUNT	736,08,615.17			736,08,615.17	2180,78,437.35
P.11.7	SBI POWER JYOTI	1,25,878.86			1,25,878.86	8,17,032.00
P.11.8	PLAN A/c (10230776532)		276,49,994.16		276,49,994.16	855,70,741.91
P.11.9	PROJECTS - ISM BRANCH			2,31,578.53	2,31,578.53	2,32,363.90
	Sub-Total	737,92,053.53	276,49,994.16	2,31,578.53	1016,73,626.22	3057,56,898.16
P.11.10	ii. In Deposit Accounts					
P.11.11	iii. In Savings Accounts					
P.11.12	Canara Bank SOL Branch, Dhanbad	28,953.00			28,953.00	28,953.00
P.11.13	Endowment Fund S/B Account	23,25,814.01			23,25,814.01	28,80,678.01
P.11.14	Projects - Bank of India - ISM Branch			57,163.00	57,163.00	57,163.00
P.11.15	Sandvik Chair A/c - Canara Bank			5,45,550.00	5,45,550.00	1,84,600.00
P.11.16	Teqip II A/c - Canara Bank			39,21,322.00	39,21,322.00	252,59,196.00
P.11.17	Projects - Canara Bank			1072,30,560.78	1072,30,560.78	272,81,576.86
P.11.18	GIL Chair - Canara Bank			14,18,532.44	14,18,532.44	40,330.44
P.11.19	ISMAANA - Canara Bank			14,339.00	14,339.00	7,843.00
P.11.20	Mole Chair - Canara Bank			8,09,445.00	8,09,445.00	4,53,306.00
P.11.21	NMDC Chair - Open Cast - Canara Bank			20,30,248.00	20,30,248.00	18,45,896.00
P.11.22	ONGC - AMN Ghosh Chair - Canara Bank			5,37,915.58	5,37,915.58	9,07,525.58

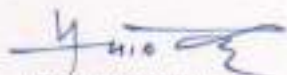


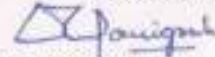
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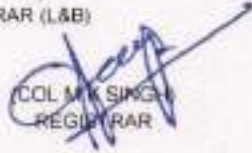
P.11.23	Rajiv Gandhi Chair - Canara Bank			8,60,999.83	8,60,999.83	11,84,440.83
P.11.24	SAIL - NMDC Chair - Canara Bank			18,47,130.48	18,47,130.48	12,13,144.48
P.11.25	TATA Steel Chair - Canara Bank			7,95,088.00	7,95,088.00	25,31,872.00
P.11.26	Uranium Chair - Canara Bank			3,57,612.00	3,57,612.00	24,903.00
	Sub-Total	23,54,767.01	-	1204,25,906.11	1227,80,673.12	638,81,197.20


(M N PANDEY)
ASST REGISTRAR (L&B)


(M S CHAMPA)
ASST REGISTRAR (FA)


(PRABODH PANDEY)
DY REGISTRAR (F&A)


(PROF D C PANIGRAHI)
DIRECTOR


(COL M K SINGH)
REGISTRAR



BALANCE SHEET OF G.P.F., C.P.F. AND D.C.P.S. ACCOUNT AS AT 31st MARCH 2017

Sl. No.	LIABILITIES	Current Year 2016-17	Previous Year 2015-16
1	GPF MEMBERS' FUNDS:		
1.4.1	Balance at the beginning of the year	2651,73,119.00	2502,10,330.00
1.4.2	Add: Subscriptions/ Loan Recovery during the year	435,94,240.00	413,28,859.00
1.4.3	Add: Interest credited to members	218,53,243.00	214,26,184.00
1.4.4	Add: Transfer from CPF Member's fund a/c	0.00	0.00
1.4.5	<i>Sub-total</i>	3306,20,602.00	3129,65,373.00
1.4.6	Less: Advances, withdrawals & final payments	321,44,840.00	477,92,254.00
1.4.7	Balance at the end of the year	2984,75,762.00	2651,73,119.00
2	CPF MEMBERS' FUNDS:		
2.4.1	Balance at the beginning of the year	1823,56,434.00	1768,32,104.00
2.4.2	Add: Subscriptions & Loan recovery during the year	142,35,300.00	145,32,380.00
2.4.3	Add: Interest credited to members	148,75,747.00	154,46,024.00
2.4.4	Add: Matching contribution to the members	25,15,186.00	26,70,887.00
2.4.5	<i>Sub-total</i>	2139,82,667.00	2094,81,395.00
2.4.6	Less: Advances, withdrawals & final payments	75,53,109.00	271,24,961.00
2.4.7	Less: Adjustment for transfer to GPF Members' Fund/ General Reserve	0.00	0.00
2.4.8	Balance as at the end of the year	2064,29,558.00	1823,56,434.00
3	DCPS MEMBERS' FUNDS:		
3.4.1	Balance at the beginning of the year	4,04,103.00	4,04,103.00
3.4.2	Subscriptions during the year	0.00	0.00
3.4.3	Add: Matching contribution to the members	0.00	0.00
3.4.4	Add: Interest credited to members	0.00	0.00
3.4.5	Less: Amount transferred to NSDL Account	0.00	0.00
3.4.6	Balance as at the end of the year	4,04,103.00	4,04,103.00
4	GENERAL RESERVE:		
4.4.1	Balance at the beginning of the year	789,41,015.48	747,53,649.48
4.4.2	Add: Excess of income over exp. for the year and others	59,78,957.04	41,87,366.00
	Less: Prior Period Interest Payment	0.00	0.00
4.4.5	Balance as at the end of the year	849,19,972.52	789,41,015.48
5	TOTAL LIABILITIES	5902,29,395.52	5268,74,671.48



Sl No	ASSETS	Current Year 2016-17	Previous Year 2015-16
6	CURRENT ASSETS:		
6.4.1	Investments:		
6.4.2	Balance at the beginning of the year	4565,17,520.93	4338,88,934.93
6.4.3	Add: Investments made during the year	630,00,000.00	2224,66,068.00
6.4.4	Less: Investments encashed during the year	280,00,000.00	1998,37,482.00
6.4.5	Balance as at the end of the year	4915,17,520.93	4565,17,520.93
6.4.6	Accrued Interest on Investment:		
6.4.7	Opening Balance	648,88,566.00	662,14,590.00
6.4.8	Additions/Deductions during the year	235,78,542.42	-13,26,024.00
6.4.9	Balance as at the end of the year	884,67,108.42	648,88,566.00
6.4.10	Total Investment incld. Accrued Interest	5799,84,629.35	5214,06,086.93
6.4.11	CASH & BANK BALANCES:		
6.4.12	Cash at Bank with SBI, ISM Br., Dhanbad	52,13,367.17	28,92,497.55
6.4.13	Sundry Debtors: Project Control A/c	0.00	0.00
6.4.14	Non Plan Control Account (Receivable)	50,31,399.00	25,76,087.00
6.4.15	TOTAL ASSETS	5902,29,395.52	5268,74,671.48

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(COL M K SINGH)
REGISTRAR

(PROF D C PANIGRAHI)
DIRECTOR



INCOME AND EXPENDITURE ACCOUNT OF G.P.F., C.P.F. AND D.C.P.S. ACCOUNT FOR THE YEAR ENDED 31st MARCH 2017

(Amount in Rs)

Sl. No.	INCOME	Current Year 2015-16	Previous Year 2014-15
1	Interest / Income from Investments	191,30,180.00	423,85,838.00
2	Interest Accrued on investment	235,78,542.42	-13,26,024.00
3	TOTAL (A)	427,08,722.42	410,59,814.00
	EXPENDITURE		
4	Interest credited to members accounts	367,28,990.00	368,72,208.00
5	Bank charges	775.38	240.00
6	TOTAL (B)	367,29,765.38	368,72,448.00
7	Balance being excess of Income over Expenditure (A - B)	59,78,957.04	41,87,366.00
8	BALANCE BEING SURPLUS CARRIED TO GENERAL RESERVE	59,78,957.04	41,87,366.00

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RECEIPTS AND PAYMENTS ACCOUNT OF G.P.F., C.P.F. AND D.C.P.S. ACCOUNT FOR THE YEAR ENDED 31st MARCH 2017

(Amount in Rs)

Sl. No.	RECEIPTS	Current Year 2015-16	Previous Year 2014-15
1	O.B: Cash at Bank with SBI,ISM Br, Dhanbad	28,92,497.55	32,22,401.55
2	Interest / Income from Investments	191,30,180.00	98,75,989.00
3	Subscription & loan rec. from GPF members	435,59,314.00	413,28,859.00
4	Subscription & loan rec. from CPF members	142,35,300.00	145,32,380.00
5	Subscription from DCPS members		
6	Matching contribution to CPF members	94,800.00	94,800.00
7	Matching contribution to DCPS members		
8	Investments encashed	280,00,000.00	626,10,189.00
9	Receipt from Plan / Non-Plan A/c	0.00	100,00,000.00
10	Receipt from Project Control A/c(General Res)		
11	TOTAL	1079,12,091.55	1416,64,618.55
	PAYMENTS		
12	Advances / withdrawals / final payments to GPF members	321,44,840.00	477,92,254.00
13	Advances / withdrawals / final payments to CPF members	75,53,109.00	271,24,961.00
14	Refund/ Transfer from DCPS to NSDL A/c		
15	Investments made during the year	630,00,000.00	527,27,926.00
16	Refund of dues to Non Plan / Plan / Project A/c	0.00	111,25,740.00
17	Interest Paid	0.00	1,000.00
18	Bank Charges	775.38	240.00
19	CB: Cash at Bank with SBI,ISM Br., Dhanbad	52,13,367.17	28,92,497.55
20	TOTAL	1079,12,091.55	1416,64,618.55

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DIRECTOR



SCHEDULE - XVII: SIGNIFICANT ACCOUNTING POLICIES

17.1 ACCOUNTING CONVENTION:

The financial statements of Plan, Non-Plan and Project have been prepared on the basis of historical cost convention unless otherwise stated and generally on accrual basis of accounting to the extent possible. However, provision for retirement benefits viz. gratuity, leave salary, pension liability etc. has not been made during the year.

17.2 REVENUE RECOGNITION

Fees from students, sale of admission forms, interest on saving bank a/c, Income from land, Building and other property etc. are accounted on realisation basis. The tuition fee is collected on semester basis commencing from July to June. Interest on Investment are accounted on accrual basis. Interest on interest bearing advances are accounted for on receipt basis.

17.3 INVENTORIES VALUATION:

Expenditure on purchase of chemicals, glassware, publications, stationery and other stores is accounted as revenue expenditure.

17.4 INVESTMENTS:

- (a) Investments both long term and short term have been shown at face value / cost.
- (b) No shortfall is expected in the value of investments as the same are to be redeemed by Govt. Institutions at face value.

17.5 FIXED ASSETS AND DEPRECIATION

A. FIXED ASSETS:

- (a) Fixed assets have been stated at cost of acquisition inclusive of inward freight, duties, taxes and incidental/direct expenses related to acquisition to the extent possible.
- (b) Fixed assets received by way of non-monetary grants (other than towards the Corpus Fund) have been capitalised at values stated by corresponding credit to capital fund.
- (c) Expenditure for renovation of buildings has been treated as Capital Expenditure.
- (d) Assets acquired under PDA have been capitalised.
- (e) Capitalisation of assets related to previous year and depreciation thereof directly accounted through capital fund.

B. DEPRECIATION:

The depreciation on fixed assets has been recalculated during the year as per observation of audit, accordingly provision for excess/less depreciation has been made during the year. No depreciation was provided till 2006-07. Depreciation has also been calculated for whole year on the assets procured anytime during the year. With the change of accounting system from cash accounting to Accrual accounting, the depreciation was provided for the first time during 2007-08, for all the previous years upto 31st March 2007 by debiting Capital Fund Account. For the purpose of determining the quantum of depreciation for all the previous years, depreciation has been calculated separately on diminishing balance method (written down value) for each item from 1987-88 onwards at the following rates and at the ad-hoc rates to cover all the years up to and including 1995-97. In order to reflect the assets at face value, the provision for accumulated depreciation has been shown under Previous Liabilities & Provisions. The Depreciation rates and ad hoc rates adopted are as follows:

Asset's Name	Ad-hoc rate of Depreciation yearly basis	Depreciation rate	Rate of Dep wef 1.4.16 on Straighten Line Method
1. Land	0%	0%	0%
2. Road & Buildings	25%	10%	2%
3. Furniture & Fixture	50%	10%	7.5%
4. Office Equipment/ Appliances	50%	10%	7.5%
5. Electrical installation	50%	15%	5%
6. Library Books	80%	60%	10%
7. Tube Well & Water supply equipment	50%	10%	2%
8. Communication facilities	50%	15%	7.5%
9. Computer Hardware/ peripherals	80%	60%	20%
10. Computer Software/ Software dev.	80%	60%	40%
11. Plant & Machinery	50%	15%	5%
12. Scientific Lab Equipment	50%	15%	8%
13. Vehicles	50%	15%	10%
14. Student Amenities (Furniture & Fixture)	50%	10%	7.5%



Methods and Depreciation further revised w.e.f. 1.4.16 as per the Guidelines and prescribed rates of MHRD. The depreciation for Project Assets has been debited to the Capitalised fund for Assets Account through which assets were created in the books of accounts.

17.6 GOVERNMENT GRANTS:

- (a) Government grants utilised for acquisition/construction of assets have been capitalised.
- (b) The MHRD grant utilized towards capital expenditure is transferred to the Capital Fund.
- (c) MHRD grants for meeting Revenue Expenditure are treated, to the extent utilized as income of the year in which they are realized under Plan.
- (d) Break-up of grants-in-aid under the heads recurring and non-recurring has been shown according to utilisation of the grants as no such allocation has been specified by MHRD, New Delhi.

17.7 FOREIGN CURRENCY TRANSACTIONS:

Transactions denominated in foreign currency are accounted for at the exchange rate prevailing on the date of the transaction as per Bank advice.

17.8 RETIREMENT BENEFITS:

Retirement benefits are accounted for on cash basis.

17.9 INCOME TAX:

The income of the Institute is exempted from Income Tax under Section 10 (23c) (iii ab) of the Income Tax Act. No provision for tax is therefore made in the accounts.

SCHEDULE - XVIII: CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS

18.1 CONTINGENT LIABILITIES:

- (a) There were no disputed demands in respect of income tax, sales tax, municipal taxes, etc. as at the end of the year.
- (b) Some suits were filed against IIT(ISM), by former/ present employees/ students of Institute and were pending for decision in various courts. These cases are related to employees promotions, increments, pay scales, termination, retirement benefits, student related, tenants, as well as arbitration cases with the suppliers. The quantum of the claims is not ascertainable.

18.2 CAPITAL COMMITMENTS

Estimated value of contracts remaining to be executed on Capital Account and not provided for (Net of Advances) amounted to about Rs. 50.00 Crores as on 31.3.2017. The gross value of construction works to be executed through Advance to CPWD is estimated more than Rs. 500 Crores.

18.3 PREVIOUS ASSETS, LOANS & ADVANCES

In the opinion of the Management the Previous assets, loans and advances have a realisable value in the ordinary course of transactions equal at least to the aggregate amount shown in the Balance Sheet except a few very old balances. The expenditure on renovation/ modification of buildings has been charged to Road & Buildings.

18.4 PAY AND ALLOWANCES:

As a part of implementation of accrual system of accounting the provision for salary of March 2017 few other expenditure has been made in the books of accounts as on 31.3.2017. No other provisions are made for arrears of pay and allowances.

18.5 CONSULTANCY SERVICES:

The accounting system for the consultancy services was changed during the year 2007-08. Up to 2006-07 the amount received and expenditure incurred on consultancy projects were taken into Income & Expenditure Account. From 2007-08 the amount of consultancy has been considered as liability and undisbursed amount has been shown in the Balance sheet. The amount received/ expenditure for new consultancy services and undisbursed amount of old consultancy projects have been taken into Balance Sheet. The receipts/ payments for the consultancy services of previous period has been taken into Capital Fund Account.

18.6 Expenditure exceeding availability of fund in a project, if any, was met out of interest from project investments.

18.7 Corresponding figures for the previous year have been regrouped / rearranged, wherever necessary and segregated to the extent possible. The variation in the previous year figures of balance sheet is due to reclassification/ segregation of ledger accounts. However, previous year figures of Income & Expenditure A/c and Receipt & Payment accounts have also been regrouped.



- 18.8 As the Provident Fund Accounts and the New Pension Scheme Account are owned by the Members of those funds and not by the School, these accounts are prepared separately. However, a Receipt & Payment Account, an Income & Expenditure Account and a Balance Sheet of the same is attached to the School's Account.
- 18.9 The surplus funds under Project Accounts were invested in a consolidated manner, and interest income was credited to Non Plan Endowment Fund of the School.
- 18.10 Schedule 1 to 15 are annexed to and form an integral part of the Balance Sheet and the Income & Expenditure Account for the year ended on that date.
- 18.11 Receipt & Payment has been made with the help of computerised schedules.

(M N PANDEY)
ASST REGISTRAR (L&B)

(M S CHAMPIA)
ASST REGISTRAR (PA)

(PRABODH PANDEY)
DY REGISTRAR (F&A)

(COL M K SINGH)
REGISTRAR

(PROF D C PANIGRAHI)
DIRECTOR


STATEMENT OF OUTSTANDING LETTERS OF CREDIT (LC) FOR THE F Y 2016-17

S. No.	Purchase order No.	Total Purchase Value	Name & Place of foreign supplier	Date	F.Y.	Outstanding as on 31/03/2017	Outstanding as on 31/03/2016	Bank
A. PLAN								
1	A/Chem / 506014/14-15	€ 15317.10	M/s. BIO-LOGIC SAS, 1, rue de l'Épe, Clax - F 38640, FRANCE	23.02.2016	2015-16		€ 1531.71	SBI, ISM Br., Dhn
2	CRF /532014/13-14	\$ 48285.00	M/s Micromeritics Instrument Corporation, International Sales Department, 4368 Communications Drive Norcross, GA 30093, USA	28.02.2016	2015-16	\$ 4828.50	\$ 4828.50	SBI, ISM Br., Dhn
3	AGP/ 501008/14-15	GBP 18661.50	M/s. Robertson Geologging Ltd Deganwy, Conwy LL31 9PX, United Kingdom	26.07.2016	2016-17	GBP 1866.15	0	SBI, ISM Br., Dhn
4	M/ 501027/15-16	CHF 133840.80	M/s. Kuhner AG, Dirkebergstr 1, CH-4127 Birsfelden, Switzerland	17.03.2017	2016-17	CHF 13394.06	0	SBI, ISM Br., Dhn
5	MME /500027/16-17	€ 15521.40	M/s. BRUEL & KJAER, Sound & Vibration Measurement, A/S DK -2850, Naerum DENMARK	29.03.2017	2016-17	€ 1552.14	0	SBI, ISM Br., Dhn
6	CRF /532005/13-14	\$ 361782.00	Rigaku Americas Corporation, 9009 New Trails Drive The Woodlands, TX 77381, USA	05.04.2016	2016-17	€ 36178.20	0	SBI, ISM Br., Dhn
B. PROJECT								
7	528/AGP /504011/15-16	\$ 21000	M/s. Porous Materials, Inc. 20 Dutch Mill Road Ithaca, NY 14850 USA	13-Apr-16	2016-17	Not Adjusted	0	Canara Bank, Sdl, Dhn
8	510/14-15 /PE/502015/15-16	\$ 36000	M/s. Porous Materials, Inc. 20 Dutch Mill Road Ithaca, NY 14850 USA	18-May-16	2016-17	90% Adjusted	0	Canara Bank, Sdl, Dhn
9	118/AGL /500010/16-17	JPY 795270	M/s. Nikon Corporation Shirogawa Intercity Tower C, 2-15-3, Konan, Minato-Ku Tokyo 106-6290 Japan	02-Aug-16	2016-17	Not Adjusted	0	Canara Bank, Sdl, Dhn
10	234/Imp /App Phys/505040/15-16	\$ 17255	M/s. CYRO Industries of America, Inc. 11124 S Willow Street Manchester, NH 03103, USA	20-Jan-17	2016-17	Not Adjusted	0	Canara Bank, Sdl, Dhn
11	213/PE/502011/15-16	\$ 42334	M/s. Porous Materials Inc. 20 Dutch Mill Road, Ithaca, NY 14850, USA	03-Oct-16	2016-17	Not Adjusted	0	Canara Bank, Sdl, Dhn
12	223/Mech /537023/15-16	€ 66910	M/s. Bruel & Kjaer Sound & Vibration Measurement A/S Skovsovej 307, DK-2850 Naerum Denmark	17-Oct-16	2016-17	Not Adjusted	0	Canara Bank, Sdl, Dhn



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13	284/16-17 /MM/501021/15-16	€ 75450	Mrs. Hock Dick AB Sven Hultinsgata 9A Chalmers Science Park SE-412 88 Göteborg, Sweden	15-Dec-16	2016-17	Not Adjusted	0 Dhn	Canara Bank, SdL
14	348/Imp /ESE/500239/16-17	\$ 24280	Mrs. Life Technologies Holdings Pte Ltd, 33 Marshall Industrial Estate Road 3, #07-06, Singapore 739256	16-Mar-17	2016-17	Not Adjusted	0 Dhn	Canara Bank, SdL
15	336/ Imp/Mech Engg/ 500130/16-17	\$ 22346	Mrs. Spectra Quest, Inc. 8227 Hermitage Road, Richmond, VA 23228 USA	23-Mar-17	2016-17	Not Adjusted	0 Dhn	Canara Bank, SdL
16	370/PE/ 500250/16-17	\$ 36400	Mrs. Porous Materials Inc. 20 Dutch Mill Road, Ithaca, NY 14850, U.S.A	31-Mar-17	2016-17	Not Adjusted	0 Dhn	Canara Bank, SdL

STATEMENT OF BANK GUARANTEE FOR THE F Y 2016-17

Sl. No.	Issued To	Total Contract / Work-order Value	Bank Guarantee Value	Issuing Date	Expiry Date	Issuing bank
1	CMPDI Limited	Rs 503,70,000.00	Rs 50,37,000.00	04-Aug-16	04-Apr-17	Canara Bank, SdL, Dhn



SCHEDULES: INVESTMENTS FOR THE F Y 2016-17

A. PLAN

Sl. No.	Name of Bank/ Branch Account No.	Effect. Dt.	Maturity Dt. & Period of Deposit	Principal (Rs.)	Intt. Rate (%)	Interest (Rs.)	Maturity Value (Rs.)	Accrued Interest
1	SBI, Main Branch, Dhanbad 3563573254	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
2	SBI, Main Branch, Dhanbad 35635738389	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
3	SBI, Main Branch, Dhanbad 35635738061	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
4	SBI, Main Branch, Dhanbad 356357 37668	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
5	SBI, Main Branch, Dhanbad 356357 37352	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
6	SBI, Main Branch, Dhanbad 35635736993	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
7	SBI, Main Branch, Dhanbad 35635736675	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
8	SBI, Main Branch, Dhanbad 35635736529	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
9	SBI, Main Branch, Dhanbad 35635736438	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
10	SBI, Main Branch, Dhanbad 35635736678	15.03.2016	09.03.2019	50,00,000.00	7.5	12,43,226.00	62,43,226.00	4,06,250.00
11	SBI, ISM CAMPUS Br. Acct. no 38571256285	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
12	SBI, ISM CAMPUS Br. Acct. no 38571255566	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
13	SBI, ISM CAMPUS Br. Acct. no 38571254526	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
14	SBI, ISM CAMPUS Br. Acct. no 38571254006	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
15	SBI, ISM CAMPUS Br. Acct. no 38571258828	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
16	SBI, ISM CAMPUS Br. Acct. no 38571258329	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
17	SBI, ISM CAMPUS Br. Acct. no 38571257664	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
18	SBI, ISM CAMPUS Br. Acct. no 38571256988	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00



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19	SBI,ISM CAMPUS Br. Acct. no. 36571260998	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
20	SBI,ISM CAMPUS Br. Acct. no. 36571259333	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
21	SBI,ISM CAMPUS Br. Acct. no. 36571272096	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
22	SBI,ISM CAMPUS Br. Acct. no. 36571272547	23.02.2017	10.04.2017	90,00,000.00	6.5	73,726.03	90,73,726.03	59,300.00
	Total (Plan)			1580,00,000.00				47,74,100.00

B. NON PLAN

Sl. No.	Name of Bank/ Branch Account No.	Effect. Dt.	Maturity Dt. & Period of Deposit	Principal (Rs.)	Intt. Rate (%)	Interest (Rs.)	Maturity Value (Rs.)	Accrued Interest
1	SBI,ISM CAMPUS Br. Acct. no. 36157239181	03.10.2016	16.01.2017	75,00,000.00	6.50	1,39,238.00	76,39,238.00	2,43,750.00
2	SBI,ISM CAMPUS Br. Acct. no. 36157056991	03.10.2016	16.01.2017	75,00,000.00	6.50	1,39,238.00	76,39,238.00	2,43,750.00
3	SBI,ISM CAMPUS Br. Acct. no. 36571456364	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
4	SBI,ISM CAMPUS Br. Acct. no. 36571456783	23.02.2017		75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
5	SBI,ISM CAMPUS Br. Acct. no. 36571440960	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
6	SBI,ISM CAMPUS Br. Acct. no. 36571440036	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
7	SBI,ISM CAMPUS Br. Acct. no. 36571439575	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
8	SBI,ISM CAMPUS Br. Acct. no. 36571438855	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
9	SBI,ISM CAMPUS Br. Acct. no. 36571440933	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
10	SBI,ISM CAMPUS Br. Acct. no. 36571417585	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
11	SBI,ISM CAMPUS Br. Acct. no. 36571419060	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
12	SBI,ISM CAMPUS Br. Acct. no. 36571420111	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25



13	SBI,ISM CAMPUS Br Acct no 36571436449	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
14	SBI,ISM CAMPUS Br Acct no 36571437330	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
15	SBI,ISM CAMPUS Br Acct no 36571438129	23.02.2017	10.04.2017	75,00,000.00	6.50	61,438.36	75,61,438.36	50,781.25
16	SBI,ISM CAMPUS Br Acct no 36704542777	20.03.2017	10.04.2017	75,00,000.00	5.50	24,863.01	75,24,863.01	12,375.00
17	SBI,ISM CAMPUS Br Acct no 367045591699	20.03.2017	10.04.2017	75,00,000.00	5.50	24,863.01	75,24,863.01	12,375.00
18	SBI,ISM CAMPUS Br Acct no 36704543259	20.03.2017	10.04.2017	75,00,000.00	5.50	24,863.01	75,24,863.01	12,375.00
19	SBI,ISM CAMPUS Br Acct no 36704543475	20.03.2017	10.04.2017	75,00,000.00	5.50	24,863.01	75,24,863.01	12,375.00
20	SBI,ISM CAMPUS Br Acct no 36704543645	20.03.2017	10.04.2017	75,00,000.00	5.50	24,863.01	75,24,863.01	12,375.00
21	SBI,ISM CAMPUS Br Acct no 36704543883	20.03.2017	10.04.2017	75,00,000.00	5.50	24,863.01	75,24,863.01	12,375.00
22	SBI,ISM CAMPUS Br Acct no 36704544060	20.03.2017	10.04.2017	75,00,000.00	5.50	24,863.01	75,24,863.01	12,375.00
23	SBI,ISM CAMPUS Br Acct no 36704544208	20.03.2017	10.04.2017	75,00,000.00	5.50	24,863.01	75,24,863.01	12,375.00
24	Canara Bank saraldhalla Branch	23.10.2015 0986413000 162/1	30.04.2017	28,00,055.00	7.85	89 balch silver jubilee fund investment	31,51,436.00	3,35,000.00
	Total (Non Plan)			1753,00,055.00				15,81,656.25

C. SCHOLARSHIPS

Sl. No.	Name of Bank/Branch Account No.	Effect Date & FDR/TDR No.	Maturity Dt. & Period of Deposit	Principal (Rs.)	Intt. Rate %	Interest (Rs.)	Maturity Value (Rs.)	Accrued Interest
A Long Term Investments:								
1.00 ISS Scholarship Fund Investment:								
1.01	Canara Bank, SDL 09864130000602	07.10.2015	14.04.2017	2,43,101.00	7.85	Maturity	2,73,608.00	795.14
2.00 ISM Basant Scholarship fund Investment:								



2.01	Canara Bank, SDL 0986413000061/2	07.10.2015	14.04.2017	1,10,199.00	7.85	Maturity	1,24,026.00	360.44
3.00	V.M.Salgocar Memorial Scholarship Fund Investment:							
3.01	SBI, ISM Campus Br, Dhanbad, A/c No. 33985549918	19.06.2014	19.06.2017	1,25,000.00	8.75	Yearly Int.	1,25,000.00	5,013.02
4.00	Budhwant Mrig Memorial Scholarship fund Investment							
4.01	Canara Bank, SDL 0986413000062/2	07.10.2015	14.04.2017	71,50,023.00	7.85	Maturity	80,47,286.00	23,386.53
5.00	J M Dhawan Memorial Sch. Ship fund Investment							
5.01	Canara Bank, SDL 0986413000063/2	07.10.2015	14.04.2017	1,10,199.00	7.85	Maturity	1,24,026.00	360.4425625
5.02	Bank of India, ISM Branch Dhanbad	06.04.2015 5672437000 026 bdf 2324123	06.04.2016	20,00,000.00	8.75	46,250.00 Qty (Non-Plan) ISMAA FUND	20,00,000.00	
5.03	Canara Bank, SDL, ISHAN RAJBANSHI MERIT SCHOLARSHIP	12.02.2014 no. 0986413000 031/1	21.08.2015	6,00,000.00	9.30	Maturity	6,90,041.00	
	TOTAL			103,38,522.00		-	113,63,987.00	29,915.58

D. ENDOWMENT FUND

Sl. No.	Name of Bank/Branch Account No.	Effect. Date & TDR No.	Maturity Dt. & Period of Deposit	Principal (Rs.)	Intt. Rate %	Interest Amount	Maturity Value (Rs.)	Accrued Interest as on 31.03.2014
1	2	3	4	5	6	7	8	
1.00	Investments maturing during the F. Y. 2016-17 :							
1.02	SBI, ISM Campus Branch 36506175629	27.01.2017	26.01.2016	80,50,736.00	7	5,78,111.00	86,28,847.00	1,00,634.20
1.03	SBI, ISM Campus Branch 36506181962	27.01.2017	26.01.2016	80,50,736.00	7	5,78,111.00	86,28,847.00	1,00,634.20
1.04	SBI, ISM Campus Branch 36506185151	27.01.2017	26.01.2016	80,50,736.00	7	5,78,111.00	86,28,847.00	1,00,634.20
1.05	SBI, ISM Campus Branch 36506152945	27.01.2017	26.01.2016	80,50,736.00	7	5,78,111.00	86,28,847.00	1,00,634.20
1.06	SBI, ISM Campus Branch 36506191426	27.01.2017	26.01.2016	80,50,736.00	7	5,78,111.00	86,28,847.00	1,00,634.20



1.07	SBI, ISM Campus Branch 36506191890	27.01.2017	26.01.2018	80,50,736.00	7	5,78,111.00	86,28,847.00	1,00,634.20	
1.08	SBI, ISM Campus Branch 36367761875	21.12.2016	05.01.2017	18,87,853.00	7	4,267.06	18,92,120.07	37,757.06	
	TOTAL			501,92,269.00				6,41,562.26	
2.00	Investments maturing during the F. Y. 2018-19 :-								
2.01	Central Bank of India, Dhanbad	31.10.2016 3562414649 231536	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.02	Central Bank of India, Dhanbad	31.10.2016 3562415511 231537	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.03	Central Bank of India, Dhanbad	31.10.2016 3562415970 231538	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.04	Central Bank of India, Dhanbad	31.10.2016 3562416086 231539	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.05	Central Bank of India, Dhanbad	31.10.2016 3562416360 231540	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.06	Central Bank of India, Dhanbad	31.10.2016 3562416441 231541	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.07	Central Bank of India, Dhanbad	31.10.2016 3562416939 231532	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.08	Central Bank of India, Dhanbad	31.10.2016 3562417061 231543	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.09	Central Bank of India, Dhanbad	31.10.2016 356241731544	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.10	Central Bank of India, Dhanbad	31.10.2016 3562417859 231545	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	
2.11	Central Bank of India, Dhanbad	31.10.2016 3562418785 231546	17.10.2018	76,00,000.00	7.55	13,12,153.00	89,12,153.00	2,35,600.00	



2.12	Central Bank of India, Dhanbad	31.10.2016 3562418245 231547	17.10.2018	76,00,000.00	7.55	13.12.153.00	89.12.153.00	2.35,600.00
2.13	Central Bank of India, Dhanbad	31.10.2016 3562418744 231548	17.10.2018	76,00,000.00	7.55	13.12.153.00	89.12.153.00	2.35,600.00
2.14	Central Bank of India, Dhanbad	31.10.2016 3562418768 231549	17.10.2018	76,00,000.00	7.55	13.12.153.00	89.12.153.00	2.35,600.00
2.15	Central Bank of India, Dhanbad	31.10.2016 3562418946 231550	17.10.2018	76,00,000.00	7.55	13.12.153.00	89.12.153.00	2.35,600.00
	TOTAL			1140,00,000.00				35,34,000.00
3.00	Investments maturing during the F. Y. 2019-20 :-							
3.01	State Bank of India, SPL Branch, Dhanbad	03.11.2016 36228331370	03.10.2019	50,00,000.00	7.00	11.22.091.00	61.22.091.00	1.47,500.00
3.02	State Bank of India, SPL Branch, Dhanbad	03.11.2016 36228354434	03.10.2019	50,00,000.00	7.00	11.22.091.00	61.22.091.00	1.47,500.00
3.03	State Bank of India, SPL Branch, Dhanbad	03.11.2016 36228352120	03.10.2019	50,00,000.00	7.00	11.22.091.00	61.22.091.00	1.47,500.00
3.04	State Bank of India, SPL Branch, Dhanbad	03.11.2016 36228351692	03.10.2019	50,00,000.00	7.00	11.22.091.00	61.22.091.00	1.47,500.00
3.05	State Bank of India, SPL Branch, Dhanbad	03.11.2016 36228351397	03.10.2019	50,00,000.00	7.00	11.22.091.00	61.22.091.00	1.47,500.00
3.06	State Bank of India, SPL Branch, Dhanbad	03.11.2016 36228346149	03.10.2019	50,00,000.00	7.00	11.22.091.00	61.22.091.00	1.47,500.00
3.07	State Bank of India, SPL Branch, Dhanbad	03.11.2016 36228345725	03.10.2019	50,00,000.00	7.00	11.22.091.00	61.22.091.00	1.47,500.00
	TOTAL			350,00,000.00				10,32,500.00



E. PROJECTS

HTISMB DHANBAD ANNUAL ACCOUNTS F.Y. 2016-17

Sl No	Name of Bank/Branch Account No.	FDR/TDR No. & Effect. Dt.	Maturity Dt. & Period of Deposit	Principal (Rs.)	Intt. Rate %	Interest (Rs.)	Maturity Value (Rs.)	Accrued Interest as on 31.03.2017
1	2	3	4	5	6	7	8	9
1.00	Investments maturing during the F. Y. 2015-16 :-							
1.01	Canbank, SDL Branch Dhanbad	25.10.2015 / 09963070000 53/3	23.04.2016	12,84,449.00	7.50	SAIL NMDC Chair	12,84,449.00	1,41,289.39
1.02	CanBank SDL Br. Dhanbad Nirja Gold	09963040000 18/1.30.03.2011 0996401004	30.03.2016	1,30,000.00	8.75	half yrlly intt Nirja Sahay	1,30,000.00	18,018.00
1.03	Canbank, SDL Branch Dhanbad	762/2 dt. 13/06/2015	13/06/2016	2,64,980.00	8.50	22884 Indrajeet Satyawali	2,68,231.00	42,396.80
1.04		Sub-total		16,79,429.00				2,01,704.19
2.00	Investments maturing during the F. Y. 2016-17 :-							
2.01	CanBank SDL Br. Dhanbad	FDR/04/000937 14.02.2007 ISMMA 0988630600 0001/1	14.02.2017 (10 years)	2,00,000.00	8.50	Yearly Intt. Late Bhaskar Bhattacharya	2,00,000.00	2,100.00
2.02	Canara Bank, Seralidhela	0988630700 0076/1 29.08.2016	26.02.2017 181 DAYS	80,00,000.00	7.00	2,77,699.00	82,77,699.00	3,20,000.00
2.03	Canara Bank, Seralidhela	09886307000 076/2 29.08.2016	26.02.2017 181 DAYS	80,00,000.00	7.00	2,77,699.00	82,77,699.00	3,20,000.00
2.04	Canara Bank, Seralidhela	09886307000 076/3 29.08.2016	26.02.2017 181 DAYS	80,00,000.00	7.00	2,77,699.00	82,77,699.00	3,20,000.00
2.05	Canara Bank, Seralidhela	0988630700 0076/4 29.08.2016	26.02.2017 181 DAYS	80,00,000.00	7.00	2,77,699.00	82,77,699.00	3,20,000.00
2.06	Canara Bank, Seralidhela	0988630700 0076/5 29.08.2016	26.02.2017 181 DAYS	80,00,000.00	7.00	2,77,699.00	82,77,699.00	3,20,000.00
2.07	Canara Bank, Seralidhela	0988630700 0076/6 29.08.2016	26.02.2017 181 DAYS	80,00,000.00	7.00	2,77,699.00	82,77,699.00	3,20,000.00



2.08	Canara Bank, Seraidhela	0986307000 069/4 15.04.2016	13.10.2016 181 DAYS	77,51,045.00	7.00	2,69,067.00	77,51,045.00	5,23,195.54
2.09	Canara Bank, Seraidhela	0986307000 069/3 15.04.2016	13.10.2016 181 DAYS	77,51,045.00	7.00	2,69,067.00	77,51,045.00	5,23,195.54
	Sub-total			637,02,090.00				29,68,491.08
3.00	Investments maturing during the F. Y. 2017-18 :-							
3.1.1	Canbank, SDL Branch Dhanbad	0986413000 153/1 28.09.2015	555 days 05.04.2017	40,00,000.00	8.10	518795 AMN Ghoshy ONGC	45,18,795.00	5,06,400.00
3.1.2	Canbank, SDL Branch Dhanbad	0986413000 153/2 30.09.2015	555 days 07.04.2017	5,00,000.00	8.10	84950 Atlas Capeco	5,64,850.00	63,300.00
3.1.3	Canbank, SDL Branch Dhanbad	0986413000 153/3 30.09.2015	555 days 07.04.2017	2,00,000.00	8.10	25639.00 L.J.Jonhson	2,25,939.00	25,320.00
3.1.4	Canbank, SDL Branch Dhanbad	0986413000 155/1 01.07.10.2015	555 days 14.04.2017	90,00,000.00	7.85		101,29,417.00	11,16,000.00
3.1.5	Canbank, SDL Branch Dhanbad	0986413000 155/2 01.07.10.2015	555 days 14.04.2017	90,00,000.00	7.85		101,29,417.00	11,16,000.00
3.1.6	Canbank, SDL Branch Dhanbad	0986413000 155/3 01.07.10.2015	555 days 14.04.2017	90,00,000.00	7.85		101,29,417.00	11,16,000.00
3.1.7	Canbank, SDL Branch Dhanbad	0986413000 155/4 01.07.10.2015	555 days 14.04.2017	90,00,000.00	7.85		101,29,417.00	11,16,000.00
3.1.8	Canbank, SDL Branch Dhanbad	0986413000 155/5 01.07.10.2015	555 days 14.04.2017	90,00,000.00	7.85		101,29,417.00	11,16,000.00
3.1.9	Canbank, SDL Branch Dhanbad	0986413000 155/6 01.12.10.2015	555 days 19.04.2017	90,00,000.00	7.85		101,29,417.00	10,98,000.00
3.1.10	Canbank, SDL Branch Dhanbad	0986413000 155/7 01.12.10.2015	555 days 19.04.2017	90,00,000.00	7.85		101,29,417.00	10,98,000.00
3.1.11	Canbank, SDL Branch Dhanbad	0986413000 155/8 01.12.10.2015	555 days 19.04.2017	90,00,000.00	7.85		101,29,417.00	10,98,000.00
3.1.12	Canbank, SDL Branch Dhanbad	0986413000 155/9	555 days 19.04.2017	90,00,000.00	7.85		101,29,417.00	10,98,000.00



3.1.27	Canbank, SDL Branch Dhanbad	0986413000 156/3 dt 17.10.2015	555 days 24.04.2017	80,00,000.00	7.85	10.03.927.00	90,03,927.00	9,76,000.00
3.1.28	Canbank, SDL Branch Dhanbad	0986413000 156/4 dt 17.10.2015	555 days 24.04.2017	80,00,000.00	7.85	10.03.927.00	90,03,927.00	9,76,000.00
3.1.29	Canbank, SDL Branch Dhanbad	0986413000 156/5 dt 17.10.2015	555 days 24.04.2017	80,00,000.00	7.85	10.03.927.00	90,03,927.00	9,76,000.00
3.1.30	Canbank, SDL Branch Dhanbad	0986359000 005/1 dt 19.10.2015	555 days 26.04.2017	22,88,811.00	7.85	Quarterly SAIL NMDC	22,88,811.00	41,198.60
3.1.31	Canbank, SDL Branch Dhanbad	0986359000 006/1 dt 19.10.2015	555 days 26.04.2017	22,88,811.00	7.85	Quarterly SAIL NMDC	22,88,811.00	41,198.60
3.1.32	Canbank, SDL Branch Dhanbad	0986359000 007/1 dt 19.10.2015	555 days 26.04.2017	22,88,811.00	7.85	Quarterly SAIL NMDC	22,88,811.00	41,198.60
3.1.33	Canbank, SDL Branch Dhanbad	0986359000 008/1 dt 19.10.2015	555 days 26.04.2017	22,88,811.00	7.85	Quarterly SAIL NMDC	22,88,811.00	41,198.60
3.1.34	Canbank, SDL Branch Dhanbad	0986359000 009/1 dt 19.10.2015	555 days 26.04.2017	22,88,811.00	7.85	Quarterly SAIL NMDC	22,88,811.00	41,198.60
3.1.35	Canbank, SDL Branch Dhanbad	0986359000 010/1 dt 29.10.2015	555 days 6.05.2017	56,490.00	7.85	Quarterly SAIL NMDC	56,490.00	847.35
3.1.36	Canbank, SDL Branch Dhanbad	0986413000 064/16 dt 17.12.2015	24.06.2017	88,06,783.00	7.85	maturity	99,11,954.00	9,68,746.13
3.1.37	Canbank, SDL Branch Dhanbad	0986413000 064/17 dt 17.12.2015	24.06.2017	61,63,025.00	7.85	maturity	69,36,427.00	6,77,932.75
3.1.38	Canbank, SDL Branch Dhanbad	0986413000 064/15 dt 17.12.2015	24.06.2017	61,63,025.00	7.85	maturity	69,36,427.00	6,77,932.75
3.1.39	Canbank, SDL Branch Dhanbad	0986359000 003/3 dt 17.12.2015	24.06.2017	22,36,960.00	7.85	Sandvik Chair	22,36,960.00	46,976.16
3.1.40	Canbank, SDL Branch Dhanbad	0986359000 001/3 dt 22.11.2015	30.05.2017	56,72,433.00	7.85	CIL Quarterly Intl	56,72,433.00	85,086.50
3.1.41	Canbank, SDL Branch Dhanbad	0986359000 001/4	30.05.2017	56,36,346.00	7.85	CIL Quarterly	56,36,346.00	84,545.19



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3.1.42	Canbank, SDL Branch Dhanbad	0986359000 002/4 dt 22.11.2015	30.05.2017	11,27,270.00	7.95	SAIL NMDC quarterly	11,27,270.00	16,909.05
3.1.43	Canbank, SDL Branch Dhanbad	0986413000 171/1 dt 26.11.2015	03.06.2017	38,71,661.12	7.95	maturity	43,57,534.00	4,45,241.03
3.1.44	Canbank, SDL Branch Dhanbad	0986359000 012/1 dt 26.11.2015	03.06.2017	40,40,034.00	7.85	R Gandhi, City,	40,40,034.00	30,300.26
3.1.45	Canbank, SDL Branch Dhanbad	0986359000 012/2 dt 26.11.2015	03.06.2017	80,21,699.00	7.85	R Gandhi, City,	80,21,699.00	60,162.74
3.1.46	Canbank, SDL Branch Dhanbad	0986359000002/3 dt 22.11.2015	30.05.2017	71,01,800.00	7.85	SAIL NMDC quarterly	71,01,800.00	1,06,527.00
3.1.47	Canbank, SDL Branch Dhanbad	0986359000 015/1 dt 28.12.2016	05.07.2017	51,61,513.00	7.85	AMN/ONGC City	51,61,513.00	-
3.1.48	Canbank, SDL Branch Dhanbad	0986359000 016/1 dt 29.12.2016	06.07.2017	60,59,765.00	7.85	SAIL NMDC quarterly	60,59,765.00	-
3.1.49	Central Bank, Barand, Dhanbad	3478159 227 dt 06.08.2015	729 days 06.08.2017	90,00,000.00	8.35	16,14,545.00	106,14,545.00	13,77,000.00
3.1.50	Central Bank, Barand, Dhanbad	3478159 261 dt 06.08.2015	729 days 06.08.2017	90,00,000.00	8.35	16,14,545.00	106,14,545.00	13,77,000.00
3.1.51	Central Bank, Barand, Dhanbad	3478159 272 dt 06.08.2015	729 days 06.08.2017	90,00,000.00	8.35	16,14,545.00	106,14,545.00	13,77,000.00
3.1.52	Central Bank, Barand, Dhanbad	3478159 318 dt 06.08.2015	729 days 06.08.2017	90,00,000.00	8.35	16,14,545.00	106,14,545.00	13,77,000.00
3.1.53	Central Bank, Barand, Dhanbad	3478159341 dt 06.08.2015	729 days 06.08.2017	90,00,000.00	8.35	16,14,545.00	106,14,545.00	13,77,000.00
3.1.54	Central Bank, Barand, Dhanbad	3478159 352 dt 06.08.2015	729 days 06.08.2017	90,00,000.00	8.35	16,14,545.00	106,14,545.00	13,77,000.00
3.1.55	Central Bank, Barand, Dhanbad	3478159 385 dt 06.08.2015	729 days 06.08.2017	90,00,000.00	8.35	16,14,545.00	106,14,545.00	13,77,000.00
3.1.56	Central Bank, Barand, Dhanbad	3478159 396 dt 06.08.2015	729 days 06.08.2017	96,37,469.00	8.35	17,28,907.00	113,66,396.00	1,44,662.34



HJS&A DHANBAD ANNUAL ACCOUNTS F.Y. 2016-17

3.1.57	Canbank, SDL Branch Dhanbad	0986413000 199/1 dt 30.03.2016	729 days 06.10.2017	80,00,000.00	7.85	10,03,891.00	90,03,891.00	6,49,600.00
3.1.58	Canbank, SDL Branch Dhanbad	0986413000 199/2 dt 30.03.2016	729 days 06.10.2017	42,76,048.00	7.85	5,36,586.00	48,12,633.00	3,47,215.10
3.1.59	Canbank, SDL Branch Dhanbad Late Chitra Bhattacharya mem fund	0986413000 199/1 dt 15.03.2016	729 days 21.09.2017	3,00,000.00	7.85	37,846.00	3,37,846.00	24,750.00
3.1.60	Canbank, SDL Branch Dhanbad	0986303000 119/1 dt 7.10.2015	24 months 07.10.2017	50,00,000.00	7.75	quarterly NMDC CHAIR	50,00,000.00	96,000.00
3.1.61	Canbank, SDL Branch Dhanbad	0986303000 182 dt 7.10.2015	24 months 07.10.2017	50,00,000.00	7.75	quarterly NMDC CHAIR	50,00,000.00	95,000.00
3.1.62	Allahabad Bank Dhanbad	086472 16.06.07	16.06.2017 10 yrs NAAM INV	5,00,000.00	9.00	Quarterly Interest	5,00,000.00	9,500.00
3.1.63	SBI, ISM Branch, Dhanbad	32432457196 NMDC Chair 16.07.12	16.07.17	136,00,000.00	9.00	Quarterly	136,00,000.00	2,31,200.00
3.1.64	SBI, ISM Branch, Dhanbad	32432459137 TATA STEEL Chair 16.07.12	16.07.17	105,00,000.00	9.00	Quarterly	105,00,000.00	1,78,500.00
3.1.65	CanBank SDL Br, Dhanbad	0986401002 923/4 25.03.2013	25.03.2018 (05 yrs)	104,11,681.00	9.05	Maturity - Pledged	163,27,160.00	44,77,022.83
3.1.66	Bank of India, ISM Campus Branch	587256110 000723 dt 28.10.2015	28.10.2017 729 days	80,00,000.00	7.75	13,24,997.00	93,24,997.00	9,60,000.00
3.1.67	Bank of India, ISM Campus Branch	587256110 0000724 dt 28.10.2015	28.10.2017 729 days	80,00,000.00	7.75	13,24,997.00	93,24,997.00	9,60,000.00
3.1.68	Bank of India, ISM Campus Branch	58725611000 0725 dt 28.10.2015	28.10.2017 729 days	80,00,000.00	7.75	13,24,997.00	93,24,997.00	9,60,000.00
3.1.69	Bank of India, ISM Campus Branch	58725611000 0726 dt 28.10.2015	28.10.2017 729 days	80,00,000.00	7.75	13,24,997.00	93,24,997.00	9,60,000.00
3.1.70	Bank of India, ISM Campus Branch	58725611000 0727 dt 28.10.2015	28.10.2017 729 days	80,00,000.00	7.75	13,24,997.00	93,24,997.00	9,60,000.00
3.1.71	Bank of India, ISM Campus Branch	58725611000 0728 dt 28.10.2015	28.10.2017 729 days	80,00,000.00	7.75	13,24,997.00	93,24,997.00	9,60,000.00



3.1.72	Bank of India, ISM Campus Branch	58725611000 0729 dt 28.10.2015	26.10.2017 729 days	-	12,98,284.30	7.75	2,14,928.00	15,13,212.30	1,55,794.12
3.1.73	Bank of India, ISM Campus Branch	58724371000 0074 dt 28.10.2015	26.10.2017 729 days		55,00,000.00	7.75	Dirty Interest Rajeev G Chair	55,00,000.00	77,000.00
3.1.74	Bank of India, ISM Campus Branch	58724371000 0075 dt 28.10.2015	26.10.2017 729 days		50,00,000.00	7.75	Dirty Interest Rajeev G Chair	50,00,000.00	70,000.00
3.1.75	Bank of India, ISM Campus Branch	58724371000 0076 dt 28.10.2015	26.10.2017 729 days		60,00,000.00	7.75	Dirty Interest CIL Chair	60,00,000.00	84,000.00
3.1.76	Bank of India, ISM Campus Branch	58724371000 0078 dt 28.10.2015	26.10.2017 728 days		63,62,000.00	7.75	Dirty Interest CIL Chair	63,62,000.00	88,068.00
3.1.77	Bank of India, ISM Campus Branch	58724371000 0079 dt 28.10.2015	26.10.2017 729 days		3,38,000.00	7.75	Dirty Interest CIL Chair	3,38,000.00	4,732.00
3.1.78	Bank of India, ISM Campus Branch	58724371000 0047 dt 28.10.2015	26.10.2017 729 days		10,00,000.00	7.75	Dirty Interest Rajeev G Chair	10,00,000.00	14,000.00
3.1.79	Bank of India, ISM Campus Branch	58724371000 0048 dt 28.10.2015	26.10.2017 729 days		4,00,000.00	7.75	Dirty Interest CIL Chair	4,00,000.00	5,600.00
3.1.80	Central Bank, Barland, Dhanbad	098641300 01701 dt 10.11.2015	18.05.2017 555 days		80,00,000.00	7.85		90,03,959.00	8,80,000.00
3.1.81	Central Bank, Barland, Dhanbad	098641300 01702 dt 10.11.2015	18.05.2017 555 days		80,00,000.00	7.85		90,03,959.00	8,80,000.00
3.1.82	Central Bank, Barland, Dhanbad	098641300 01703 dt 10.11.2015	18.05.2017 555 days		80,00,000.00	7.85		90,03,959.00	8,80,000.00
3.1.83	Central Bank, Barland, Dhanbad	098641300 01704 dt 10.11.2015	18.05.2017 555 days		80,00,000.00	7.85		90,03,959.00	8,80,000.00
3.1.84	Central Bank, Barland, Dhanbad	098641300 01705 dt 10.11.2015	18.05.2017 555 days		80,00,000.00	7.85		90,03,959.00	8,80,000.00
3.1.85	Central Bank, Barland, Dhanbad	098641300 01706 dt 10.11.2015	18.05.2017 555 days		80,00,000.00	7.85		90,03,959.00	8,80,000.00
3.1.86	Central Bank, Barland, Dhanbad	098641300 01707 dt	18.05.2017 555 days		80,00,000.00	7.85		90,03,959.00	8,80,000.00



ITTSMD, DHANBAD ANNUAL ACCOUNTS F.Y. 2016-17

		10.11.2015							
3.1.87	Canbank, SDL Branch Dhanbad	098641300 01708 dt 10.11.2015	18.05.2017 555 days	36,13,405.00	7.85	4,53,464.00	40,66,869.00	3,97,474.55	
3.1.88	Canbank, SDL Branch Dhanbad	098640100 5353/1 dt 19.05.2016	19.05.2017 365 days	90,00,000.00	7.50	6,94,222.00	96,94,222.00	6,48,000.00	
3.1.89	Canbank, SDL Branch Dhanbad	098640100 5353/2 dt 19.05.2016	19.05.2017 365 days	90,00,000.00	7.50	6,94,222.00	96,94,222.00	6,48,000.00	
3.1.90	Canbank, SDL Branch Dhanbad	098640100 5353/3 dt 19.05.2016	19.05.2017 365 days	90,00,000.00	7.50	6,94,222.00	96,94,222.00	6,48,000.00	
3.1.91	Canbank, SDL Branch Dhanbad	098640100 5353/4 dt 19.05.2016	19.05.2017 365 days	90,00,000.00	7.50	6,94,222.00	96,94,222.00	6,48,000.00	
3.1.92	Canbank, SDL Branch Dhanbad	098641300 0203/1 dt 12.04.2016	19.10.2017 555 days	75,00,000.00	7.85	9,41,181.00	84,41,181.00	5,70,000.00	
3.1.93	Canbank, SDL Branch Dhanbad	098641300 0203/2 dt 12.04.2016	19.10.2017 555 days	75,00,000.00	7.85	9,41,181.00	84,41,181.00	5,70,000.00	
3.1.94	Canbank, SDL Branch Dhanbad	098641300 0203/3 dt 12.04.2016	19.10.2017 555 days	75,00,000.00	7.85	9,41,181.00	84,41,181.00	5,70,000.00	
3.1.95	Canbank, SDL Branch Dhanbad	28.01.2016 09863590 00019/1	05.08.2017	2,99,636.00	7.85	Late Snehata Srivastava	2,99,636.00	25,469.06	
3.1.96	Canbank, SDL Branch Dhanbad	28.01.2016 09863590 00020/1	05.08.2017	45,84,641.00	7.85	Sandvik Chair	45,84,641.00	3,89,694.49	
3.1.97	Bank of India, ISM Branch Dhanbad	30.03.2013 587256110000 400587243 71000 0023	14.04.2016 1111 days	5,00,000.00	9.10	11,375.00 Dir/Late Bhaskar Bhattacharya	5,00,000.00	-	
3.1.98	Bank of India, ISM Branch Dhanbad	30.03.2013 5872561100 00402 58724371 0000025	14.04.2016 1111 days	3,00,000.00	9.10	6,825.00 Dirly Smt. Renuka Rajhans	3,00,000.00	-	
3.1.99	Canbank, SDL Branch Dhanbad	0986307 000079/1 dt	09.07.2017 181 days	80,00,000.00	8.50	2,57,863.00	82,57,863.00	1,26,000.00	



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3.1.101	SBI, ISM Campus Branch 36704414064	09.01.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	30,000.00
3.1.102	SBI, ISM Campus Branch 36704414257	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.103	SBI, ISM Campus Branch 36704414462	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.104	SBI, ISM Campus Branch 36704414676	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.105	SBI, ISM Campus Branch 36704415068	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.106	SBI, ISM Campus Branch 36704415262	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.107	SBI, ISM Campus Branch 36704415444	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.108	SBI, ISM Campus Branch 36704415557	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.109	SBI, ISM Campus Branch 6704415830	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.110	SBI, ISM Campus Branch 36704416016	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.111	SBI, ISM Campus Branch 36704416152	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.112	SBI, ISM Campus Branch 36704441349	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.113	SBI, ISM Campus Branch 36704441463	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.114	SBI, ISM Campus Branch 36704441699	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.115	SBI, ISM Campus Branch 36704441906	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.116	SBI, ISM Campus Branch 36704442058	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.117	SBI, ISM Campus Branch 36704442229	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.118	SBI, ISM Campus Branch 36704442944	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
3.1.119	SBI, ISM Campus Branch 36704443211	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00



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3.1.120	SBI, ISM Campus Branch 36704443380	18.03.2017	15.09.2017 181 days	50,00,000.00	6.50	1,61,164.38	51,61,164.38	13,550.00
	Sub-total		119 Nos	7511,84,043.42				654,56,402.36
4.00	Investments maturing during the F. Y.2018-19 :-							
4.01	Carbank, SDL Branch Dhanbad	0986303000 12/7/1 dt 25.10.2016	24.10.2018 729 days	30,00,000.00	7.50	TATA STEEL CHAIR	34,49,846.00	90,000.00
4.02	Carbank, SDL Branch Dhanbad	0986303000 12/7/2 dt 25.10.2016	24.10.2018 729 days	12,00,000.00	7.50	ONGC AMN GHOSH	13,79,938.00	36,000.00
4.03	Carbank, SDL Branch Dhanbad	0986303000 12/7/2 dt 28.11.2016	28.11.2018 730 days	50,00,000.00	7.35	7,35,000.00	57,35,000.00	1,50,000.00
4.04	Carbank, SDL Branch Dhanbad	0986303000 12/7/2 dt 28.11.2016	28.11.2018 730 days	50,00,000.00	7.35	7,35,000.00	57,35,000.00	1,50,000.00
	Sub-total		4 Nos	142,00,000.00				4,26,000.00
5.00	Investments maturing during the F. Y.2019-20 :-							
5.01	Bank of India, ISM Branch Dhanbad	06.10.2014 5872451100 000057	06.10.2019 5 years	15,00,000.00	9.05	33,937.5 Qnty POONAM (KHANNA) SINGH END. FUND	1500000.00	30,000.00
5.02	Bank of India, ISM Branch	5872451100 00785 03.10.2014	03.10.2019 05 years	90,00,000.00	9.05	50,78,961.54	140,78,961.54	22,50,000.00
5.03	Bank of India, ISM Branch	5872451100 00790 03.10.2014	03.10.2019 05 years	90,00,000.00	9.05	50,78,961.54	140,78,961.54	22,50,000.00
5.04	Bank of India, ISM Branch	5872451100000 7890 3.10.2014	03.10.2019 05 years	96,92,796.23	9.05	54,69,927.74	151,62,725.97	24,23,199.56
5.05	CarBank SDL Br. Dhanbad MOLE	098630300 0103/1 dt 07.11.2014	07.11.2019 05 years	5,00,000.00	9.00	Q. Int. Rs 11250.00	5,00,000.00	7,500.00
5.06	CarBank SDL Br. Dhanbad MOLE	098630300 0103/2 dt 07.11.2014	07.11.2019 05 years	10,00,000.00	9.00	Q. Int. Rs 22500	10,00,000.00	15,000.00
5.07	CarBank SDL Br. Dhanbad MOLE	098630300 0103/3 dt 07.11.2014	07.11.2019 05 years	10,00,000.00	9.00	Q. Int. Rs 22500	10,00,000.00	15,000.00



ITTS&I DHANBAD ANNUAL ACCOUNTS F.Y. 2016-17

5.08	CarBank SDL Br. Dhanbad MOLE	098630300 01034 dt 07.11.2014	07.11.2019 05 years	25,00,000.00	9.00	Q. int. Rs. 56250	25,00,000.00	37,500.00
5.09	CarBank SDL Br. Dhanbad MOLE	098630300 01035 dt 07.11.2014	07.11.2019-05 years	50,00,000.00	9.00	Q. int. Rs. 112500.00	50,00,000.00	75,000.00
	Sub-total		9 Nos	391,92,798.23				71,03,199.56
6.00	Investments maturing during the F. Y. 2021-22 :-							
6.01	SBI ISM Br Dhanbad	32088884875 dt 16.12.2011	16.12.2021	80,05,000.00	9.25	maturity	1,99,76,031.00	49,63,100.00
6.02	SBI ISM Br. Dhanbad	32088884343 dt 16.12.2011	16.12.2021	80,00,000.00	9.25	maturity	1,99,63,554.00	49,60,000.00
6.03	SBI ISM Br Dhanbad	32088885325 dt 16.12.2011	16.12.2021	80,10,000.00	9.25	maturity	199,88,508.00	49,66,200.00
6.04	Union Bank of India, Bank more	00034933 03/22/642 24.10.2013	24.05.2021	50,00,000.00	9.25	mat. - Uranium Char Inv.	100,02,769.00	18,50,000.00
6.05	Union Bank of India, Bank more	00034943 03/22/642 24.10.2013	24.05.2021	50,00,000.00	9.25	mat. - Uranium Char Inv.	100,02,769.00	18,50,000.00
	Sub-total			340,15,000.00				185,89,300.00
	GRAN D TOTAL			9039,73,360.65	-	-	-	947,45,097.19
	Accrued interest			501,64,072.00				
	Total			9541,37,432.65				



भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद
INDIAN INSTITUTE OF TECHNOLOGY (ISM), DHANBAD

No. ISM/Accts./Plan/UC: 2015-16/16

December 7, 2016
(03.01.2017)

GFR 19 - A
[See Rule 212 (1)]
Form of Utilization Certificate
PLAN


FINAL UTILISATION CERTIFICATE FOR THE F. Y. 2015-16
Annex

Sl. No.	Sanction letter No. and date	Amount (Rs. lakhs)	
1	F. No. 1-152015-TS-II dated 30.06.2015	150.00	Certified that out of Rs. 10,000.00 lakhs of grants-in-aid sanctioned during the year 2015-16 in favour of Indian School of Mines, Dhanbad under this Ministry of Human Resource Development, Department of Higher Education letter Nos. given in the margin and a deficit of Rs. (-27.46) lakhs on account of unspent balance of the previous year and an internal income (interest) of Rs. 113.39 lakhs; a sum of Rs. 10113.45 lakhs has been utilized (including advance payments made to CPWD for construction of buildings and transfer of interest to Endowment Fund) for the purpose of meeting Plan Expenditure for which it was sanctioned and that the balance (deficit) of Rs. (-0.06) lakhs remaining unutilized at the end of the year has been transferred to Capital fund / will be adjusted towards the grants-in-aid payable during the next year 2016-17.
2	F. No. 1-152015-TS-II dated 30.06.2015	1400.00	
3	F. No. 1-152015-TS-II dated 30.06.2015	400.00	
4	F. No. 1-152015-TS-II dated 30.06.2015	100.00	
5	F. No. 1-152015-TS-II dated 30.06.2015	400.00	
6	F. No. 1-152015-TS-II dated 30.06.2015	50.00	
7	F. No. 1-152015-TS-II dated 27.07.2015	150.00	
8	F. No. 1-152015-TS-II dated 27.07.2015	1000.00	
9	F. No. 1-152015-TS-II dated 27.07.2015	400.00	
10	F. No. 1-152015-TS-II dated 27.07.2015	500.00	
11	F. No. 1-152015-TS-II dated 27.07.2015	400.00	
12	F. No. 1-152015-TS-II dated 27.07.2015	50.00	
13	F. No. 1-152015-TS-II dated 23.11.2015	200.00	
14	F. No. 1-152015-TS-II dated 23.11.2015	75.00	
15	F. No. 1-152015-TS-II dated 23.11.2015	25.00	
16	F. No. 1-152015-TS-II dated 23.11.2015	50.00	
17	F. No. 1-152015-TS-II dated 23.11.2015	200.00	
18	F. No. 1-152015-TS-II dated 23.11.2015	900.00	
19	F. No. 1-152015-TS-II dated 16.02.2016	330.00	
20	F. No. 1-152015-TS-II dated 16.02.2016	250.00	
21	F. No. 1-152015-TS-II dated 16.02.2016	1400.00	
22	F. No. 1-152015-TS-II dated 16.02.2016	50.00	
23	F. No. 1-152015-TS-II dated 16.02.2016	215.00	
24	F. No. 1-152015-TS-II dated 16.02.2016	11.00	
		10000.00	

Certified that I have satisfied myself that the conditions on which the grants-in-aid were sanctioned have been duly fulfilled/are being fulfilled and that we have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of Checks exercised

1. Comptroller & Auditor General of India


[Col. (Retd.) M.K. Singh]
Registrar



भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद
INDIAN INSTITUTE OF TECHNOLOGY(ISM), DHANBAD

No. ISM/ Accts./Plan/UC/2015-16/16

December 7, 2016
03.01.2017

GFR 10 - A
[See Rule 212 (1)]
Form of Utilization Certificate
NON - PLAN


FINAL UTILISATION CERTIFICATE FOR THE F. Y. 2015-16
Audited

Sl. No.	Sanction letter No. and date	Amount (Rs. Lakhs)	
1	F. No. 3-16/2015-TS II dated 20.06.2015	262.55	Certified that out of Rs. 7,450.00 lakhs of grants-in-aid sanctioned during the year 2015-16 in favour of Indian School of Mines, Dhanbad under this Ministry of Human Resource Development, Department of Higher Education letter Nos. given in the margin and deficit of Rs. (-30.15) lakhs charged to Capital Fund on account of unspent balance of the previous year and an internal income of Rs. 4689.86 lakhs; a sum of Rs. 12140.09 lakhs has been utilized for the purpose of meeting Non-Plan Expenditure for which it was sanctioned and that the balance (deficit) of Rs. (-0.23) lakhs remaining unutilized at the end of the year has been transferred to the Capital Fund / will be adjusted towards the grants-in-aid payable during the next year 2016-17.
2	F. No. 3-16/2015-TS II dated 30.06.2015	1550.50	
3	F. No. 3-16/2015-TS II dated 27.07.2015	1600.00	
4	F. No. 3-16/2015-TS II dated 27.07.2015	600.00	
5	F. No. 3-16/2015-TS II dated 24.11.2015	1200.00	
6	F. No. 3-16/2015-TS II dated 23.11.2015	295.00	
7	F. No. 3-16/2015-TS II dated 09.02.2016	1620.00	
8	F. No. 3-16/2015-TS II dated 06.02.2016	542.50	
	Total	7450.00	

Certified that I have satisfied myself that the conditions on which the grants-in-aid were sanctioned have been duly fulfilled/are being fulfilled and that we have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of Checks exercised

1. Comptroller & Auditor General of India


[Col. (Retd) M. K. Singh]
Registrar

भारतीय लेखा तथा लेखा परीक्षा विभाग
कार्यालय प्रधान निदेशक लेखापरीक्षा (केन्द्रीय) लखनऊ



INDIAN AUDIT & ACCOUNTS DEPARTMENT
Office of the Principal Director of Audit (Central) Lucknow

No. PDAC/LKO/SAR-IIT(ISM)/2016-17/186

Dated: October 23, 2017

To,

The Director,
Indian Institute of Technology (ISM),
Dhanbad-826004

Sub: Separate Audit Report on the accounts of Indian Institute of Technology (ISM), Dhanbad for the year 2016-17

Sir,

I enclose a copy of the Audit Report and Audit Certificate along with audited Annual Accounts Indian Institute of Technology (ISM), Dhanbad for the year 2016-17 for information and necessary action.

2. A copy of each of the documents has been sent to the Secretary to the Government of India, Ministry of Human Resource Development, New Delhi for information and necessary action.

3. The audited Annual Accounts, Audit Report should be duly considered and adopted by the Governing Body (BOG) of the IIT(ISM), Dhanbad in the Annual General meeting before these are laid in the House of parliament.

4. A copy of (i) Resolution of Governing Body adopting the Audit Report and Audit Certificate with audited Annual Accounts, (ii) Date of its presentation before the House of Parliament and (iii) Annual Report of the Institute may be furnished to this office in due course for our records and onward transmission to the Comptroller and Auditor General of India, New Delhi.

5. The Hindi version of this SAR may kindly be furnished to this office within one week.

6. The receipt of this letter with enclosures may please be acknowledged.

Yours faithfully,

Principal Director of Audit (Central).

Encl: - As above.

Separate Audit Report of the Comptroller & Auditor General of India on the accounts of the Indian Institute of Technology (ISM), Dhanbad for the year ended 31 March 2017

We have audited the attached Balance Sheet of the Indian Institute of Technology (ISM), Dhanbad as on 31 March 2017, the Income and Expenditure Account and Receipts and Payments Account for the year ended on that date under Section 20 (1) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971. The audit has been entrusted for the period up to 2016-17. These financial statements are the responsibility of the ISM's management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India (C&AG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules and Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/ C&AG's Audit Reports separately.
3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the managements, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.
4. Based on our audit, we report that:

- (i) We have obtained all the information and explanations, which, to the best of our knowledge and belief, were necessary for the purpose of our audit.
- (ii) The Balance Sheet, Income and Expenditure Account and Receipts and Payments Account dealt with by this report have been drawn up in the format approved by the Government of India, Ministry of Finance.
- (iii) In our opinion, proper books of accounts and other relevant records have been maintained by the Indian School of Mines (ISM), Dhanbad as required under Section 19 (i to vi) of the Memorandum of Association and Rules and regulations in so far as it appears from our examination of such books.
- (iv) The ISM Dhanbad is upgraded as IIT (ISM), Dhanbad on 6th September 2016 vide the Institutes of Technology (Amendment) Act, 2016 No. 41 of 2016. The Indian Institute of Technology (Indian School of Mines), Dhanbad are made under this Act, the Statutes and ordinances as are applicable to the Indian Institute of Technology, Roorkee immediately before the commencement of the Institute of Technology (Amendments) Act, 2016, shall apply to the Indian Institute of Technology (Indian School of Mines), Dhanbad, with the necessary modifications and adaptations in so far as they are not inconsistent with the provisions of this Act. The Indian Institute of Technology (Indian School of Mines), Dhanbad is partially adopt the rule and regulation of IIT Roorkee.

(v) We further report that;

A.-Balance Sheet

A-1 Liabilities

A.1.1. Capital fund (Schedule-1)- ₹ 798.12 Crore

A.1.1.1. The School received grant of ₹100 crore under the head plan during the year. The previous unspent grant under the head plan was ₹183.69 crore. Thus, the institute had total grant of ₹283.69. The institute utilized ₹42.24 during the year under the head plan. Thus, the School was required to exhibit ₹241.45 crore

as grant refundable to Ministry. Non depiction resulted in understatement of Current liabilities and overstatement of Capital Fund by ₹241.45 crore.

A.1.1.2. The Institute received grant ₹100.00 crore under the head plan during 2016-17. Out of this, ₹80.00 crore was earmarked for creating capital assets and ₹20.00 crore was provided for meeting revenue expenditure. The Institute exhibited ₹21.14 instead of ₹20.00 crore in the Income and Expenditure Accounts resulting in overstatement of Income and understatement of Capital fund by ₹1.14 crore.

A.1.1.3. The Institute has shown ₹2982170 in the Annual Account instead of ₹2428768. This resulted in Overstatement of Project Current Liabilities By ₹5.53 lakh and understatement of Income by the same amount.

A.1.1.4. Understatement of Project Current Liabilities by ₹0.12 lakh

The Institute has shown ₹1861196 in the Annual Account instead of ₹1872796 as details below. This resulted in Understatement of Project Current Liabilities by ₹0.12 lakh and Overstatement of income by the same amount.

A.1.2. Earmarked/ Endowment Funds (Schedule-III)- ₹52.85 crore

A.1.2.1. The school has nine Chair funds. Records revealed that there are discrepancies between assets and liabilities by ₹61.21 lakh. The figures need to be reconciled.

As per Format of Accounts prescribed by the MHRD, Investment and accrued interest of Chair fund is to be shown separately from other investment. The School, however, did not exhibit the investment of chair funds separately. This needs to be corrected.

A.1.2.2. Schedule XVIII contingent liabilities and notes on accounts revealed that interest earned from investment of Project fund was transferred to Non-Plan Endowment. But the treatment is not in consonance with the guideline issued by Ministry of Human Resource Development (MHRD) for Endowment Fund (Non-Plan) Block grant scheme on 20.07.2005. The Institute, as per the Block grant scheme, was allowed to retain the internal revenue generated by them during

the block grant period only. The scheme was closed in 2009-10. As such, any transfer after 2009-10 to Endowment Fund is irregular.

The Institute, during the year, transferred ₹569.63 lakh from project fund to endowment fund instead of crediting interest proportionately in respective Project funds resulting in overstatement of Endowment Fund (Non-Plan) and understatement of income under the head Project fund by ₹569.63 lakh.

A.2 Assets

A.2.1 Fixed Assets [Schedule-V]-₹ 439.49 lakh

A.2.1.1. Construction works were entrusted to CPWD and ₹4243.00 lakh was given an advance to CPWD. Out of which the CPWD completed and handed over the works for ₹4182.98 lakh to the Institute. But the Institute did not capitalize these works under the head building and has shown in the head work in progress. Further the Institute did charge the depreciation. This resulted overstatement of work in progress and understatement of Assets by ₹4182.98 lakh. Further, the depreciation was understated by ₹83.05 lakh and Income overstated by the same to the same extent.

Sl No.	Name of Work	Amount(₹ in lakh)
1.	Construction work of 1200 room boys' hostel	590.75
2.	Construction work of student activity center	2663.35
3.	Construction work of 800 room boys hostel boundary wall and badminton court	11.18
4.	Construction work of Security officer cum T-O-P	214.17
5.	Construction work of Security officer cum T-O-P	707.73
	Total	4182.98

A.2.1.2. CPWD completed four buildings as given in the table below during November 2015 to March 2016.

As the buildings were completed during 2015-16, it was to be accounted for under the head buildings during the same year. The Institute however, exhibited it under the head advance to supplier (2016-17). This has resulted in

overstatement of Advance to Supplier and understatement of Fixed Assets by ₹1049.97 lakh.

Sl. No.	Name of work	Amount shown as advance	Total Expenditure	(₹ in lakh) Date of completion
1	Vertical extension of Management Centre	300	326.55	30.11.2015
2	Vertical extension of Petroleum building (3 rd floor)	350	325.57	30.11.2015
3	Vertical extension of Science Block	NA	77.85	30.11.2015
4	Vertical extension of Fuel Mineral Engineering	260	320	31.03.2016
Total			1049.97	

A.2.1.3. According to uniform format of Financial Statement for Central Higher Education Institution (CHEI) prescribed at the rate of depreciation to be provided on fixed assets.

Scrutiny of Fixed Asset (Schedule V) of the Institute for the year 2016-17 revealed that depreciation was not provided according to guidelines of the uniform format on asset prescribed by MHRD. The Institute should calculate the Depreciation on the basis of prescribed format for uniformity in the financial statement of CHEI.

A.2.1.4. The CPWD was received ₹833.70 lakh advances for completion of construction works as per Form 65 for the month March 2017. But the Institute was shown ₹799.00.lakh in its annual accounts. This needs to needs to be reconciled.

A.2.1.5. The work Power Augmentation of ₹4075958 has already been completed and handed over to institute. But the instituteshowed the same in the work-in-progress. The Institute has to show as Asset after capitalized.

This resulted in over statement of WIP and understatement of Assets by ₹ 40.76 lakh. Further, understatement of depreciation by ₹ 2.04 lakh (@5%).

B. Income and Expenditure

B.1. As per common format of accounts for higher education institution prescribed by MHRD, the account of consultancy income and expenditure on the same is to be routed through Income and Expenditure Accounts. But the Institute is routing all income and expenditure on consultancy project of ₹14.66 crore through Balance Sheet in contravention of format prescribed by MHRD. Besides, consultancy is a major source of internal income and has no relation with Research Project. As such it was to be shown in Non Plan Account. The several irregularities exhibited the transaction under this head in Project accounts.

Although, the para raised in previous year SAR, but no corrective action was taken by the Institute.

B.2. The Institute was shown negative balance in the accounts amounting to ₹10.31 lakh in the deferent head of accounts as details below. It was clear that the institute incurred expenditure in excess than the budgetary provision/excess than the income.

This resulted overstatement of expenditure and understatement of income by ₹10.31 lakh in the balance sheet.

C. Receipt and Payment Account

The institute prepared the Receipt and Payment Account for the Year 2016-17. But the Institute did not prepare the ledger of Receipt and Payment accounts. The Institute should prepare the necessary schedule and ledger of Receipt and Payment account.

D. Accounting Policy and Notes to Accounts

D.1. No provision of retirement benefits on actuarial base was made by the Institute. Retirement benefits were accounted for on cash basis by the institute.

D.2. The Institute did not reconcile general ledgers with subsidiary/individual ledgers from time to time and hence accuracy of the figures could not be verified in audit.

D.3. As per format of accounts prescribed by MHRD, letter of credit outstanding as on 31.3.2016 was to be disclosed in Notes on Accounts. The school, however, did not disclose outstanding letters of credit in its Notes on Accounts of EURO 1531.71 and USD 4828.50.

Besides, foreign currency transactions were also not disclosed in Accounts

E. General

E.1. Non maintenance of Assets Register of Non Plan and Project

Test Check of Annual Accounts for the year 2016-17 revealed that IIT(ISM), Dhanbad was not prepared assets register of non-plan and project. ₹330.22 lakh and ₹3686.28 lakh was assets were purchased during the year under the head non-plan and project. Due to non maintenance of Assets Register of Non Plan and Project accounts, the audit could not verified during the audit. Further the institute prepared the assets register for the year 2016-17 of plan head but no assets register was prepared before 2016-17. In absence of this the actual position of fixed assets could not be verified by the audit.

Further the Institute was not conducted the physical verification of assets and inventories, the actual position of assets as well as value of unserviceable items were not verified during the audit.

E.2. Bank Reconciliation

Test check of relevant records revealed that ₹1496394 was debited by bank but not credited in cash book of BRS of Canara Bank project by the institute.

Further, an amount of ₹3,69,581 was credited by bank but not debited in cash book by the institute. The matter may be taken with Bank and reconciliation with Bank should be done promptly.

E.3. Outstanding advances against CPWD- ₹ 536.50 crore

During the test check of ledger of current Assets it was noticed that an amount of ₹536.50 crore was shown unadjusted against the CPWD. The age wise advances neither shown in ledger nor in Accounts. So that the actual position of advances to CPWD could not be verified.

E.4. Advance to suppliers under Plan Accounts- ₹ 646.59 crore

The advance to suppliers under the Plan Accounts as on 31.03.17 was amounting to ₹ 646.59 crore which was outstanding against to different suppliers more than 6 months. As per format prescribed by MHRD, the age wise position of the advances was not shown separately in the Annual Accounts.

E.5. Outstanding Advances

As per format of accounts prescribe by MHRD, advances which are outstanding for more than six months should be shown in annual accounts separately.

Although advances of ₹780.93 lakh (Project ₹271.07 lakh, Plan ₹380.40 lakh and Non-Plan ₹80.45 lakh) provided to various suppliers had been lying outstanding for more than six months and ₹7.24 lakh was outstanding more than 10 years which records were also not in the institute. As recovery of these advances is doubtful suitable provision should be made in accounts for long/old outstanding. Further, ₹181.00 lakh was outstanding against the employees as on 31.03.2017.

E.6. Scrutiny of Fixed assets register and Schedule V revealed that Institute made a payment of ₹4,22,730 vide Vr No- 1195 dated- 20.10.16 for renewal of subscription for the period 01.10.2016 to 30.09.2017 under the head E-Journal. Total amount of ₹4,22,730 was taken in the Fixed Assets in the account for 2016-17. Whereas, ₹2,11,365 was to be taken in the Fixed Asset and ₹2,11,365 should be debited to Pre-paid expenses. This resulted in overstatement of Fixed Asset by ₹2.11 lakh.

F.Grants- in-Aid

The Institute received total grant from the Ministry of Human Resources, Department of Higher Education Government of India amounting to ₹185.20

crore (₹100.00 crore in Plan Grant and ₹85.20 crore in Non Plan). Internal income of the Institute was ₹51.80 crore (₹45.80 crore generated by Institute and ₹ 6.00 other income). The Institute had unspent Plan balance of previous year was ₹191.16 crore (Plan ₹183.69 crore and Non plan ₹1.47 crore). Thus, the Institute had total fund of ₹422.16 crore (Plan ₹283.69 crore and Non plan ₹ 38.47 crore). Out of which the Institute utilized a sum of ₹179.24 crore (Plan ₹42.24 crore and Non Plan ₹137.00 crore) during the year and leaving of balance of ₹242.92 crore (Plan ₹ 241.45 crore and Non Plan ₹1.47 crore) as unutilized amount as on 31.03.2017. The Institute had actual unspent balance amounting to ₹183.61 crore (Plan grant ₹182.14 crore and non-plan ₹1.47 crore) as the institute was give the advance ₹59.31 crore to CPWD for construction work during the year from the Plan head.

G. Management letter

Deficiencies which have not been included in the Audit Report have been brought to the notice of the Institute through a management letter issued separately for remedial/corrective action.

(vi) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet and Income & Expenditure Account and Receipt & Payment Account dealt with by this report are in agreement with the books of accounts.

(vii) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in the annexure to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India.

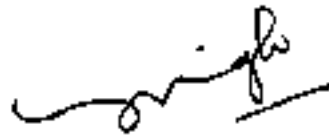
(a) In so far as it relates to the Balance Sheet, of the state of affairs of the IIT(ISM), Dhanbad Ranchi as at 31st March 2017, and

(b) In so far as it relates to Income and Expenditure Account of the surplus for the year ended on that date.

Place: Lucknow,

Date: 23.10.17

For and on behalf of the
Comptroller and Auditor General of India



Principal Director of Audit (Central), Lucknow

Annexure

1. Adequacy of Internal Audit system

The Internal Audit Control reflected deficiencies in following area:

- a. The Internal Audit (IA) is exist in the Institute comprising to one UDC and one Assistant Registrar.
- b. IA is inadequate keeping in view the size of the Autonomous body.
- c. The IA wing is limited to precheck of purchase vouchers and pay fixation only.
- d. The wing did not conduct audit of annual accounts and other basic records maintained in the Institute.
- e. Beside, no Internal Audit Manual has been prepared by the Institute.
- f. The IA was not prepared Report and not submits IR to management.

2. Adequacy of Internal Control System

- a. The Institute did not prepare Internal Audit and office procedure manual.
- b. The Institute did not definition and Job description of the officers and staff and procedure for maintain accounts and records and has been put in place.
- c. There was no procedure for rotating duties of the employees dealing with cash, valuable, store and stock put in place.
- d. The Physical work In progress was not monitored by the Institute so that cause in delays in completion of the work could be ascertained.
- e. The Register of valuables is not maintained in the Institute.
- f. Advance was pending for more than five years for settlement are not disclosed in the accounts separately.
- g. The Institute is prepared fixed assets register for Plan during the Year 2016-17 only. But the Institute did not prepare the Assets Register of Non-Plan and Project. In absence of these audit could not verified the actual position of fixed assets.
- h. There was non-compliance of outstanding audit observation, reflecting poor follow up procedure.

3. Physical verification of fixed assets and inventories.

The Physical verification of fixed assets as well as consumable and non-consumable items has not been conducted by the Institute during the year.

4. Regular in payment of statutory dues.

The Institute is regular in payment of statutory dues.