ANNUAL REPORT

2012-2013

INDIAN INSTITUTE OF TECHNOLOGY ROPAR

Nangal Road, Rupnagar, Punjab-140001 (INDIA)

Students as on 31.03.2013		
Course	Admission	On Roll
B. Tech	117	458
Ph. D	21	65

Receipts Amount (Rs.)	Payments Amount (Rs.)
760501294	760501294

Research Projects	
No.	Outlay (Rs.)
22	41345827

IIT ROPAR AT A GLANCE

Visitors: 45

Publications: 157

Staff	
Faculty	Non-Teaching Staff
52	33

CONTENTS

PREFACE

The Indian Institute of Technology Ropar (IIT Ropar) is one of the eight new IITs set up by the Ministry of Human Resource Development (MHRD), Government of India, to expand and enhance the quality of technical education in the country. The Ministry of Human Resource Development (MHRD), Govt. of India, vide its Notification dated 09.05.2008 decided that the Indian Institute of Technology Delhi would mentor the setting up of IIT Ropar. The foundation stone of the Institute was laid on 24th February, 2009. IIT Ropar is registered as a Society under the Societies' Registration Act 1860 on 29th July, 2008. The Institute is currently operating from a transit campus, earlier occupied by the Government Polytechnic for Women. The transit campus was inaugurated on 19th August, 2009. On 20th August, 2009, the classes at transit campus commenced. Professor M. K. Surappa joined as the first Director of the Institute on 10.06 2009, and Shri A. Palanivel joined as the first Registrar on 10.07.2009.

IIT Ropar is committed to provide state-of-the-art technical education in a variety of fields and also to facilitate transmission of knowledge in keeping with the latest developments in pedagogy. These two areas of focus will enable students to gain exposure to recent trends in their chosen domains of study and practical experience through a wide variety of activities that the Institute facilitates in its own campus and arranges for collaboration with industry and other Institutes. At the transit campus, arrangements have been made for classes, laboratories, hostels and faculty accommodation. In due course of time, the Institute will shift to the main campus.

IIT Ropar is located at Rupnagar (formerly known as Ropar) town of district Rupnagar in Punjab. Rupnagar was founded in the 11th century and was named after Rup Sen, son of Raja Rokeshar. Recent excavations and explorations conducted at Rupnagar indicate that the first settlement here were those of the Harappans, who reached the upper Satluj towards the close of the third millennium B. C. The district has a rich historical and religious significance.

The town of Rupnagar, which is also the district headquarters, is at a distance of 42 kms from Chandigarh, the state capital. Rupnagar is well connected by National Highway NH-21. The Delhi-Ambala-Una railway line passes through Rupnagar and provides good rail connectivity.

The nearest airport is in Chandigarh which is located at a distance of about 50 kms. The Government of Punjab has allocated 501 acres of land on the banks of the river Satluj to IIT Ropar. When completed, the campus will be a self-contained township catering to all the needs of faculty, staff and students.

At present, the Institute offers Bachelor of Technology (B. Tech.) programme in the following disciplines: Computer Science and Engineering, Electrical Engineering and Mechanical Engineering. This programme is spread over a period of eight semesters and the Institute admits forty students in each branch. These students are selected through IIT Joint Entrance Examination conducted every year. In addition, the Institute now offers doctoral programme in several disciplines.

From The Director's Desk

The Indian Institute of Technology Ropar started functioning from the academic year 2008-09 from the campus of IIT Delhi, the mentor institute. The Institute currently operates from the premises of Government Polytechnic College for Women (Ropar). The foundation stone laying ceremony was held on 24th February, 2009. Indian Institute of Technology Ropar has been registered as Society under the Societies' Registration Act 1860 on 29th July, 2009. The transit campus of IIT Ropar was inaugurated on 19th August, 2009. Indian Institute of Technology Ropar admitted a total of 107 students in 2009, 118 in 2010 to different courses and 105 students who were admitted at IIT Delhi for IIT Ropar were shifted to the transit campus at the beginning of the Academic Year 2009-10.

The overall academic system for IIT Ropar is designed to provide science-based engineering education with a view to produce quality engineers and scientists. The curriculum provides broadbased knowledge and simultaneously builds a temper for life-long learning and exploring. The undergraduate programme begins with a set of science and general engineering courses which are reflected in the course plan for the first year. These courses provide a foundation for further discipline-specific topics.

Taking into account the needs of the curriculum, all facilities and infrastructure are being upgraded. The Institute has been actively involved in collaborative programmes with national and international organisations/universities, to remain at the forefront of scientific and technological development and to share the knowledge for mutual benefits.

The Institute also undertakes a number of research and consultancy projects sponsored by a wide spectrum of funding agencies, including the Government and Industry. The Institute has undertaken major research activities in areas of national importance such as quantum optics and quantum control, low energy ion beam physics and material modification, polynomial representation of non-compact knots, unknotting numbers, surface engineering and friction stir welding, supramolecular synthesis and material chemistry, catalysis and nanochemistry,modelling vitamin B12 Bioinformatics, renewable energy, heat transfer, nanofluids, materialprocessing, manufacturing, microstructure property relationship, composites, adaptive signalprocessing and wireless communications, archival research on the history of education, history of political philosophy.

Our greatest assets are highly qualified faculty members, visiting professors, visiting scientists,non-academic staff and an outstanding body of students.

The Institute has provided adequate funds to the departments for the upgradation of laboratories and creation of research facilities. This has enabled our faculty to take up research projects in frontier and emerging areas.

The Institute is actively involved in collaboration programmes with international organisations/universities. Our institute has collaborated with several universities in UK, including Imperial College London, Aston University, GRPE University of Glasgow and the University of Strathclyde. MOUs have been signed with the Imperial college and GRPE of UK.

The Training and Placement Cell is actively involved in organising practical training of the undergraduate students and has been playing a catalytic role in finding placements for its final yearstudents.

(M. K. SURAPPA)

IIT ROPAR – MILESTONES

Milestone	Date
❖ Date of Notification of IIT Ropar (Mentor Institute IIT Delhi)	9 May, 2008
❖ Registered as Society under Societies Registration Act 1860	29 July, 2008
❖ Foundation Stone laid on	24 February, 2009
❖ First Director of the Institute joined on	10 June, 2009
❖ First Registrar of the Institute joined on	10 July, 2009
❖ Inauguration of the Transit Campus	19 August, 2009
❖ Commencement of Classes at the Transit Campus	20 August 2009

MISSION AND OBJECTIVES

IIT Ropar offers teachings and research in Engineering and Applied Sciences as well as in Humanities and Social Sciences. The Institute aims

- To establish a robust teaching environment.
- To facilitate and support cutting-edge-research.
- To acquaint the students with the latest developments in their respective areas of study.
- To inspire the students to pursue their own research interests.
- To encourage its faculty members to initiate research work.
- To develop strong collaboration with academic/research Institution and industry.

BOARD OF GOVERNORS

CHAIRMAN

1. Prof. V.S. Ramamurthy
   (Chairman, BoG, IIT Ropar)
   Director, National Institute of Advanced Studies
   Indian Institute of Science Campus
   Bangalore-560012

MEMBERS

2. Prof. M. K. Surappa
   Director
   Indian Institute of Technology Ropar
   Nangal Road, Rupnagar - 140 001
   Punjab

3. Sh. Rakesh Singh, IAS
   Chief Secretary to Government of Punjab
   Room No. 28, 6th Floor
   Punjab Civil Secretariat
   Chandigarh – 160 001

4. Ms Amita Sharma, IAS
   Additional Secretary (Higher Education)
   Ministry of Human Resource Development
   Shastri Bhawan
   New Delhi – 110 001

5. Dr. H. R. Bhojwani
   C-150, Sarvodaya Enclave
   New Delhi – 110 017

6. Sh. Siddharth Sh.ram
   Chairman
   Usha International Ltd.
   Corporate Office
   Plot No. 3, Institutional Area
   Sector – 32, Gurgaon – 122 001
   Haryana

7. Sh. S. K. Munjal
   C.E.O.
   Hero Corporate Services
   E – 1, Qutab Hotel Complex
   Shahid Jit Singh Marg
   New Delhi – 110 016

8. Prof. P.K. Raina
   Head
   Department of Physics
   Indian Institute of Technology Ropar
   Nangal Road, Rupnagar-140001

9. Prof. S.M. Ishtiaque
   Professor
   Department of Textile Technology
   Indian Institute of Technology Delhi
   Hauz Khas, New Delhi -110 016

SPECIAL INVITEE

10. Prof. R.K. Shevgaonkar
    Director
    Indian Institute of Technology Delhi
    Hauz Khas, New Delhi- 110 016

SECRETARY

11. Sh. A. Palanivel
    Registrar
    Indian Institute of Technology Ropar
    Nangal Road, Rupnagar-140001
    Punjab

FINANCE COMMITTEE

CHAIRMAN

1. Prof. V.S. Ramamurthy
(Chairman, FC, IIT Ropar)
Director,
National Institute of Advanced Studies
IISc Bangalore Campus
Bangalore – 560 012

MEMBERS

2. Prof. M. K. Surappa
Director
Indian Institute of Technology Ropar
Nangal Road, Rupnagar - 140 001
Punjab

3. Ms. Amita Sharma, IAS
Additional Secretary (Higher Education)
Ministry of Human Resource Development
Shastri Bhawan
New Delhi-110 001

4. Sh. J. S. Mathur, IAS
Additional Secretary & Financial Advisor
Ministry of Human Resource Development
Department of Higher Education
122-A, C-Wing,
Shastri Bhawan
New Delhi-110 001

5. Prof. R.K. Shevgaonkar
Director
Indian Institute of Technology Delhi
Hauz Khas
New Delhi- 110 016

SECRETARY

6. Sh. A. Palanivel
Registrar
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140001
Punjab

BUILDING AND WORKS COMMITTEE

CHAIRMAN

1. Prof. M. K. Surappa
Director
(Chairman, B&WC)
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001
Punjab

MEMBERS

2. Prof. A. Sridharan
40, West Park Road
Between 13th & 14th Cross
Malleswaram
Bangalore-560 003

3. Er. S. Ramanujam
C/o S.S. Rajan
New No. 7, Old No. 4, 1st Floor
Mannar Reddy Street
T. Nagar, Chennai-600 017

4. Er. A. K. Sarin
840, Sector 17
Faridabad – 121 002

SECRETARY

5. Sh. A. Palanivel
Registrar
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140001
Punjab

SENATE

CHAIRMAN

1. Prof. M. K. Surappa
Director
(Chairman, Senate)
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

MEMBERS

2. Prof. N. Sathyamurthy
Director
Indian Institute of Science Education and Research
Knowledge City, Sector 81
SAS Nagar, Manauli PO 140306, Punjab

3. Prof. Arun Kumar Grover
Vice Chancellor
Punjab University, Chandigarh-160 014

4. Prof. M.L. Munjal
Honorary Professor
Department of Mechanical Engineering
Indian Institute of Science, Bangalore – 560012

5. Prof. P. K. Raina
Professor and Head
Department of Physics
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

6. Prof. Sanjoy Roy
Professor and Head
Department of Electrical Engineering
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

7. Dr. Rajyashree Khushu Lahiri
Associate Professor and Head
Department of Humanities & Social Sciences
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

8. Dr. J.S. Sahambi
Associate Professor
Department of Electrical Engineering
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

9. Dr. Harpreet Singh
Associate Professor and Coordinator
School of Mechanical, Materials & Energy Engineering
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

10. Dr. M. Prabhakar
Assistant Professor and Coordinator
Department of Mathematics
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

11. Dr. Nitin Auluck
Assistant Professor and Coordinator
Department of Computer Science & Engineering
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001 , Punjab

12. Dr. Narinder Singh
Assistant Professor and Coordinator
Department of Chemistry
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

13. Dr. R. Srivastava
Assistant Professor
Department of Chemistry
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

14. Dr. Jitendra Prasad
Assistant Professor
School of Mechanical, Materials & Energy Engineering
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

SPECIAL INVITEES

15. Prof. S. M. Ishtiaque
Professor
Department of Textile Technology
Indian Institute of Technology Delhi
Hauz Khas , New Delhi-110 016

16. Prof. S. R. Kale
Professor
Department of Mechanical Engineering
Indian Institute of Technology Delhi
Hauz Khas
New Delhi-110 01

17. Dr. Manoranjan Mishra
Assistant Professor and Warden
Department of Mathematics
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

18. Dr. Dinesh K.S.
Deputy Librarian
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140 001, Punjab

SECRETARY

19. Sh. A. Palanivel
Registrar
Indian Institute of Technology Ropar
Nangal Road, Rupnagar-140001
Punjab

ADMINISTRATION

The IITs are administered centrally by the IIT Council, an apex body established by the Government of India to co-ordinate activities of these Institutes. Hon`ble Minister for Human Resource Development, Government of India is the Chairman of the Council.

THE KEY OFFICIALS OF IIT ROPAR

S. No.	Designation	Name
1.	Director	Prof. M. K. Surappa
2.	Professor In-charge (Academic & Research)	Porf. P. K. Raina
3.	Professor In-charge (Student Affairs)	Prof. Sanjoy Roy
4.	Registrar	Sh. A. Palanivel
5.	Head, Department of Physics	Porf. P. K. Raina
6.	Head, Department of Electrical Engineering	Prof. Sanjoy Roy
7.	Head, Department of Humanities and Social Sciences	Dr. Rajyashree K. Lahiri
8.	Coordinator, Department of Computer Science	Dr. Nitin Auluck
9.	Coordinator, SMMEE	Dr. Harpreet Singh
10.	Coordinator, Department of Chemistry	Dr. Narindra Singh
11.	Coordinator, Department of Mathematics	Dr. M. Prabhakar
12.	PG Coordinator	Dr. Rajendra Srivastava
13.	UG Coordinator	Dr. M. Prabhakar
14.	Faculty In-charge (Library)	Dr. J. S. Sahambi
15.	Faculty In-charge (Training and Placement)	Dr. Anshu Dhar Jayal
16.	Faculty In-charge (Guest House)	Dr. C. Chakradhar Reddy
17.	Hostel Wardens	I. Dr. Manoranjan Mishra II. Dr. Rano Ringo III. Dr. Somdev Kar
18.	Deputy Librarian	Dr. Dinesh K. S.
19.	Deputy Registrar, Establishment & Stores & Purchase	Sh. Ravinder Kumar
20.	Executive Engineer	Sh. T. S. Anand
21.	Assistant Registrar, Accounts	Sh. Lagvish Kumar
22.	Assistant Registrar, Academics & Student Affairs	Sh. C. S. Sham Sundar

FACULTY MEMBERS JOINED DURING THE YEAR 2012-13

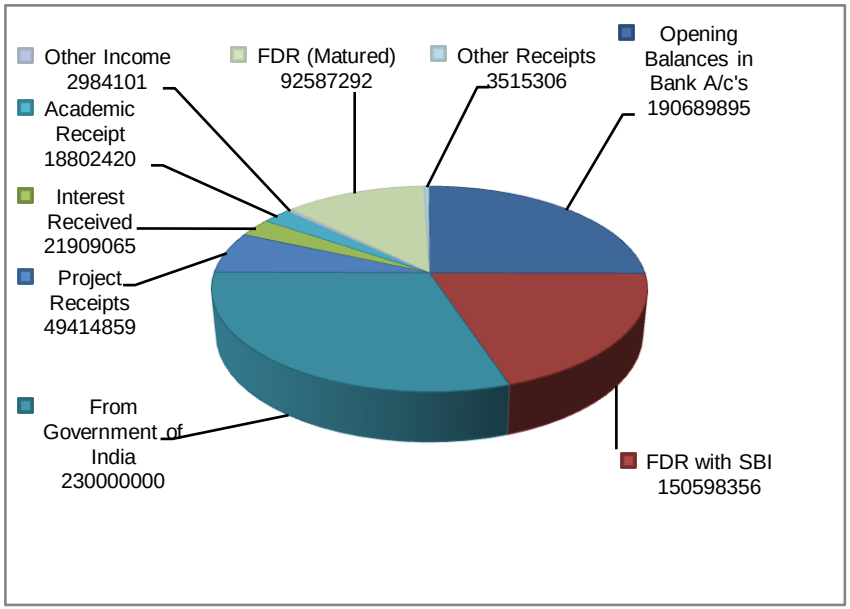
S. No.	Name	Designation	Department/School
1.	Dr. Ranjan Das	Assistant Professor	School of Mechanical, Materials and Energy Engineering (SMMEE)
2.	Prof. Braham Prakash	Visiting Professor	School of Mechanical, Materials and Energy Engineering (SMMEE)
3.	Dr. Harpreet Singh	Associate Professor	School of Mechanical, Materials and Energy Engineering (SMMEE)
4.	Dr. Rohit Y. Sharma	Assistant Professor	Electrical Engineering
5.	Dr. Rajib K. Jha	Assistant Professor	Electrical Engineering
6.	Dr. Tharamani C.N.	Assistant Professor	Chemistry
7.	Dr. C. M. Nagaraja	Assistant Professor	Chemistry
8.	Dr. Yashveer Singh	Assistant Professor	Chemistry
9.	Dr. Partha Sharathi Dutta	Assistant Professor	Mathematics
10.	Dr. K. L. Panigrahi	Associate Professor	Physics
11.	Dr. Samaresh Bardhan	Assistant Professor	Humanities & Social Sciences
12.	Dr. Smruti Ranjan Behera	Assistant Professor	Humanities & Social Sciences
13.	Sh. H. S. Khangura	Visiting Faculty	Computer Science & Engineering
14.	Dr. Sudarshan Iyengar	Visiting Scientist	Computer Science & Engineering
15.	Dr. Balwinder Singh	Visiting Faculty	Computer Science & Engineering
16.	Dr. K. Sreenivasan	Visiting Faculty	Computer Science & Engineering

NON-FACULTY STAFF JOINED DURING THE YEAR 2012-13

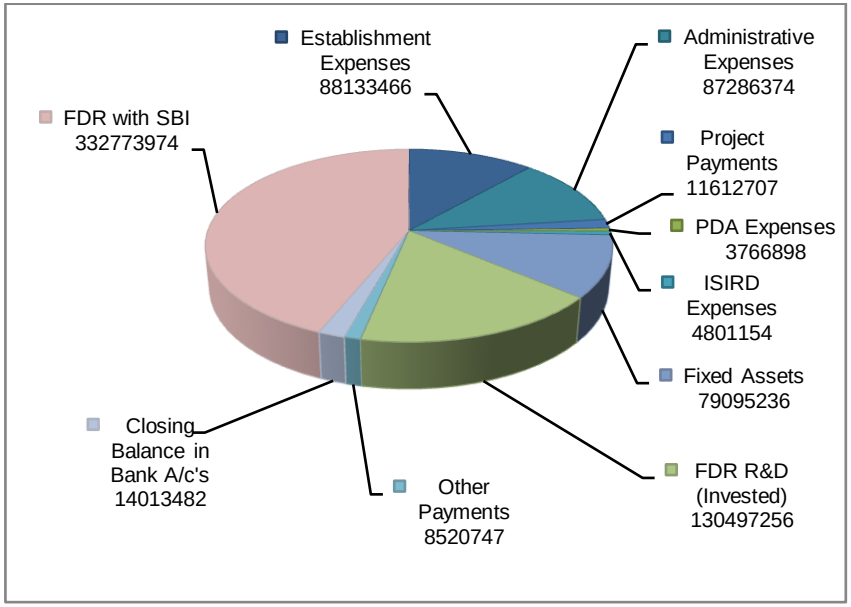
S. No.	Name	Designation	Department/Section
1.	Sh. C. S. Sham Sundar	Assistant Registrar	Academics & Student Affairs
2.	Sh. Nitin jain	Junior Hindi Translator	Hindi Cell
3.	Sh. Ajeet pal Singh	Sports Officer	Sports
4.	Sh. Vijay Singh	Junior Account Officer	Account Section

FINANCE & ACCOUNTS

RECEIPTS (Rs.)



PAYMENTS (Rs.)



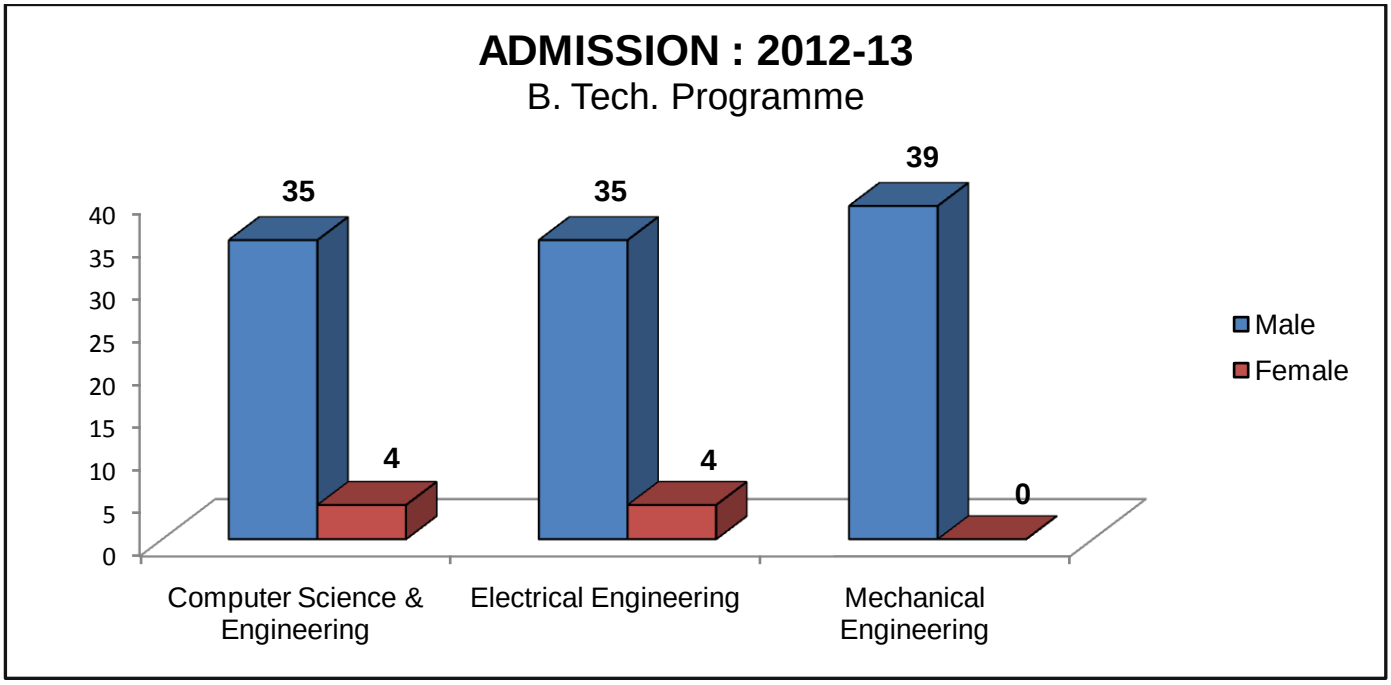
RECEIPTS	AMOUNT (Rs.)
Opening Balances in Bank A/c's	190689895
FDR with SBI	150598356
Grant received From Govt. of India	230000000
Project Receipts	49414859
Interest Received	21909065
Academic Receipt	18802420
Other Income	2984101
FDR (Matured)	92587292
Other Receipts	3515306
GRAND TOTAL	**760501294**

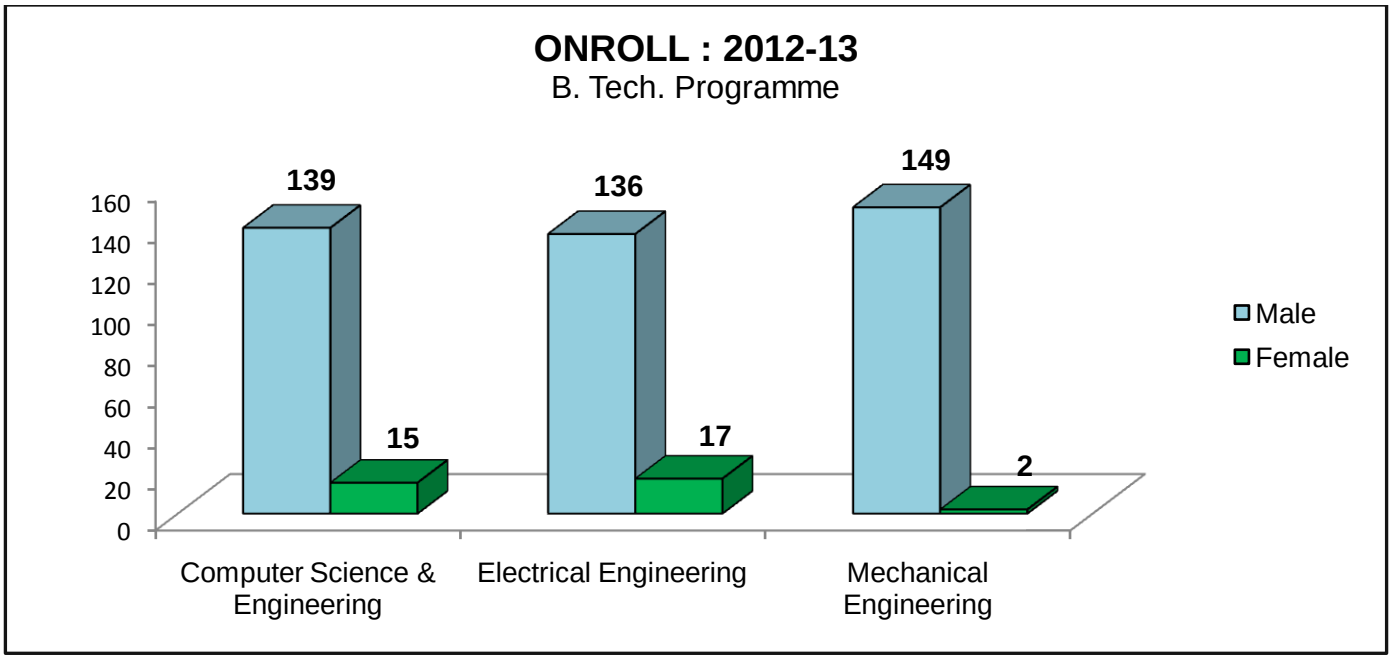
PAYMENTS	Amount (Rs.)
Establishment Expenses	88133466
Administrative Expenses	87286374
Project Payments	11612707
PDA Expenses	3766898
ISIRD Expenses	4801154
Fixed Assets	79095236
FDR R&D (Invested)	130497256
Other Payments	8520747
Closing Balance in Bank A/c's	14013482
FDR with SBI	332773974
GRAND TOTAL	**760501294**

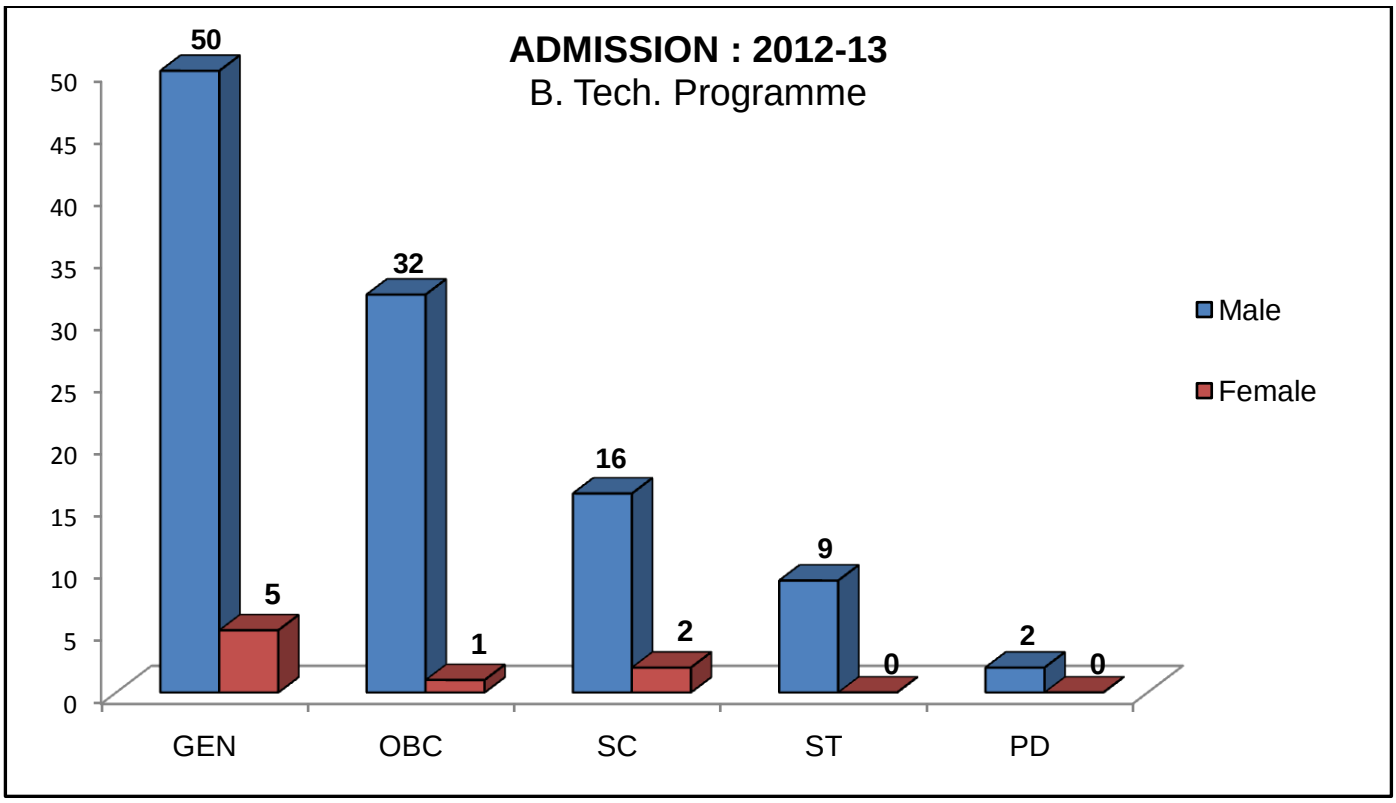
STUDENTS

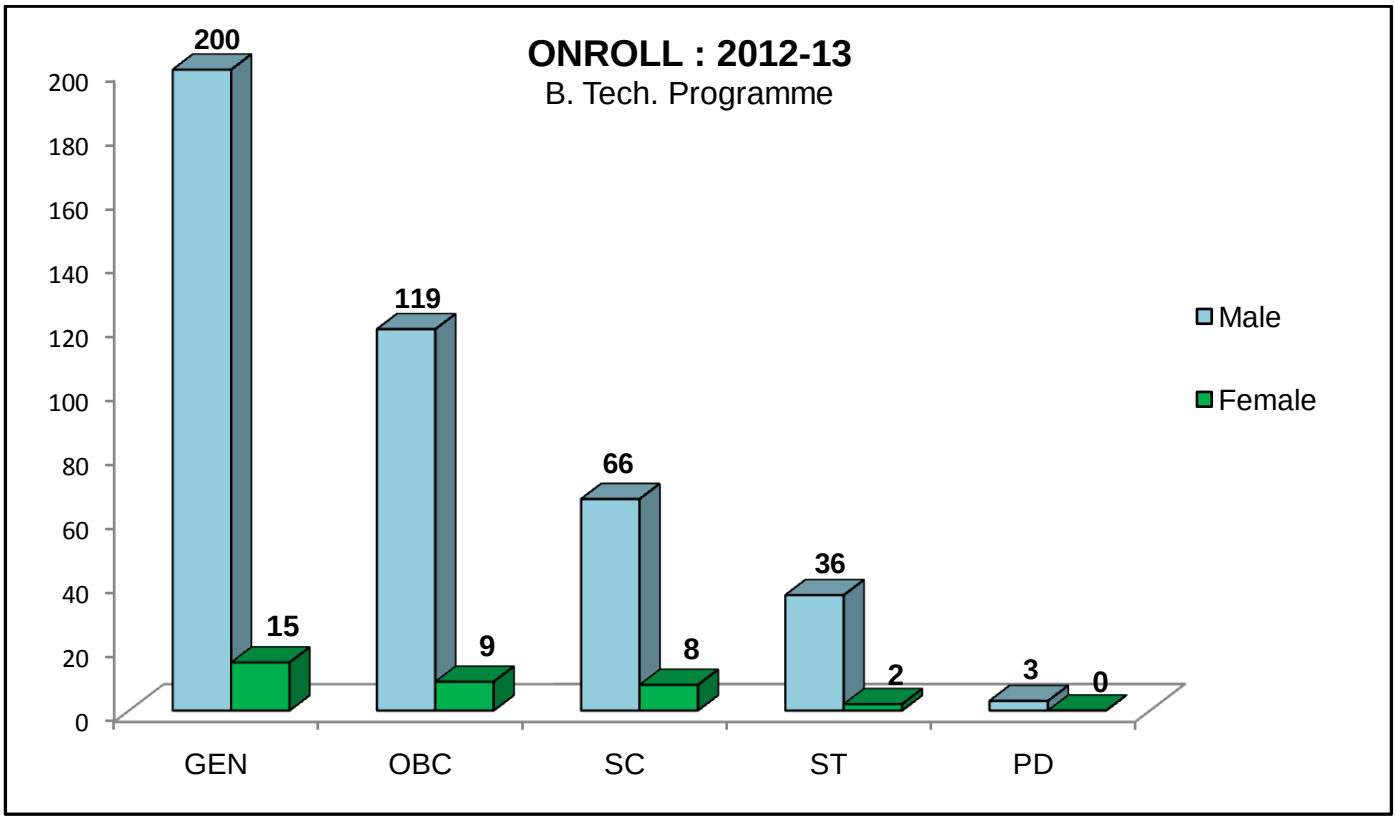
The Institute started functioning from the transit campus from 19th August, 2009. The Institute admitted 117 students to the B.Tech. programme during the academic year 2012-2013. These students were selected through the All India Joint Entrance Examination. The Institute offers courses in Computer Science & Engineering, Electrical Engineering and Mechanical Engineering. The detail of students admitted to the various Departments is as follows: -

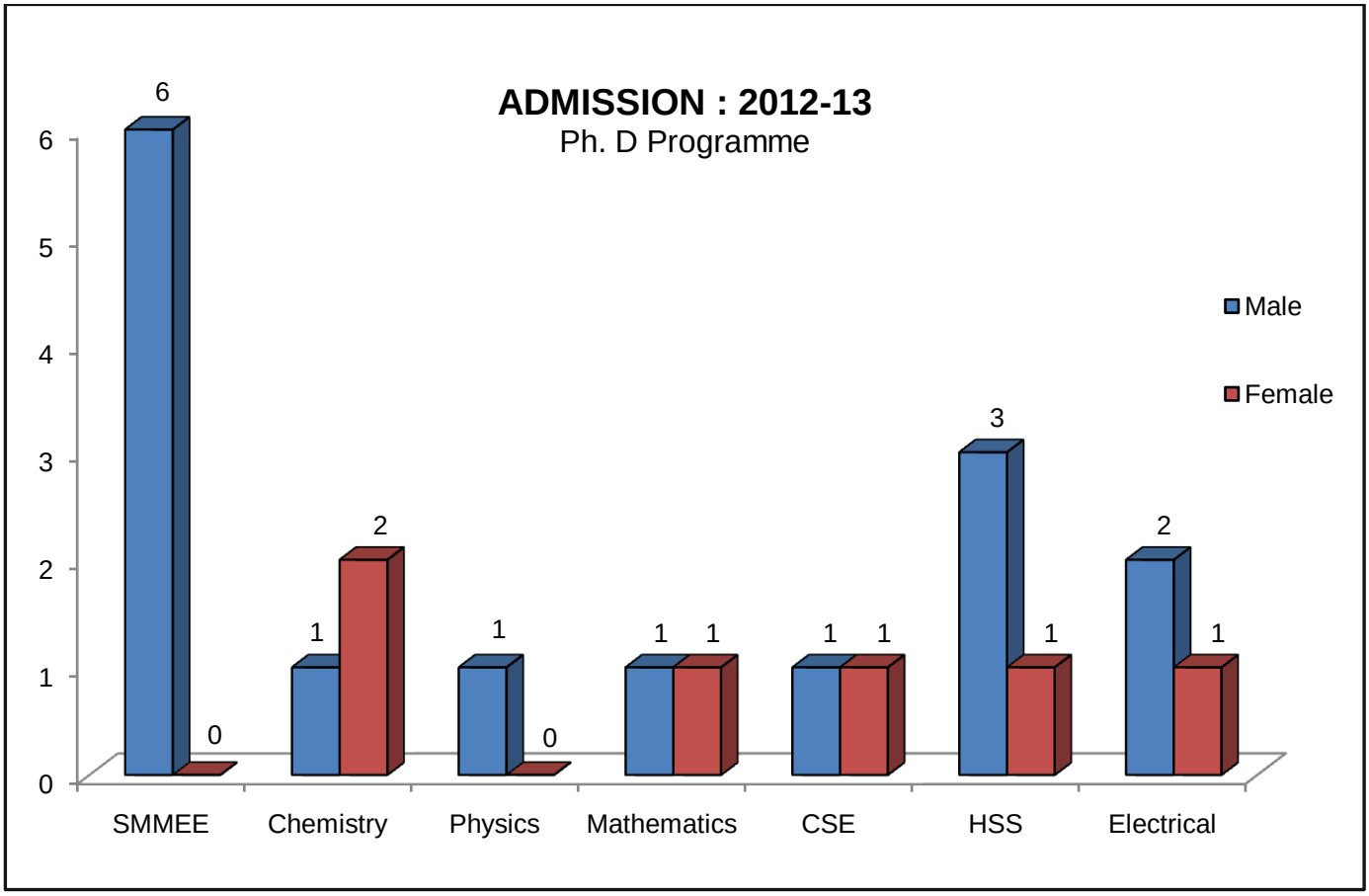
Distribution of Students According to Discipline and Gender

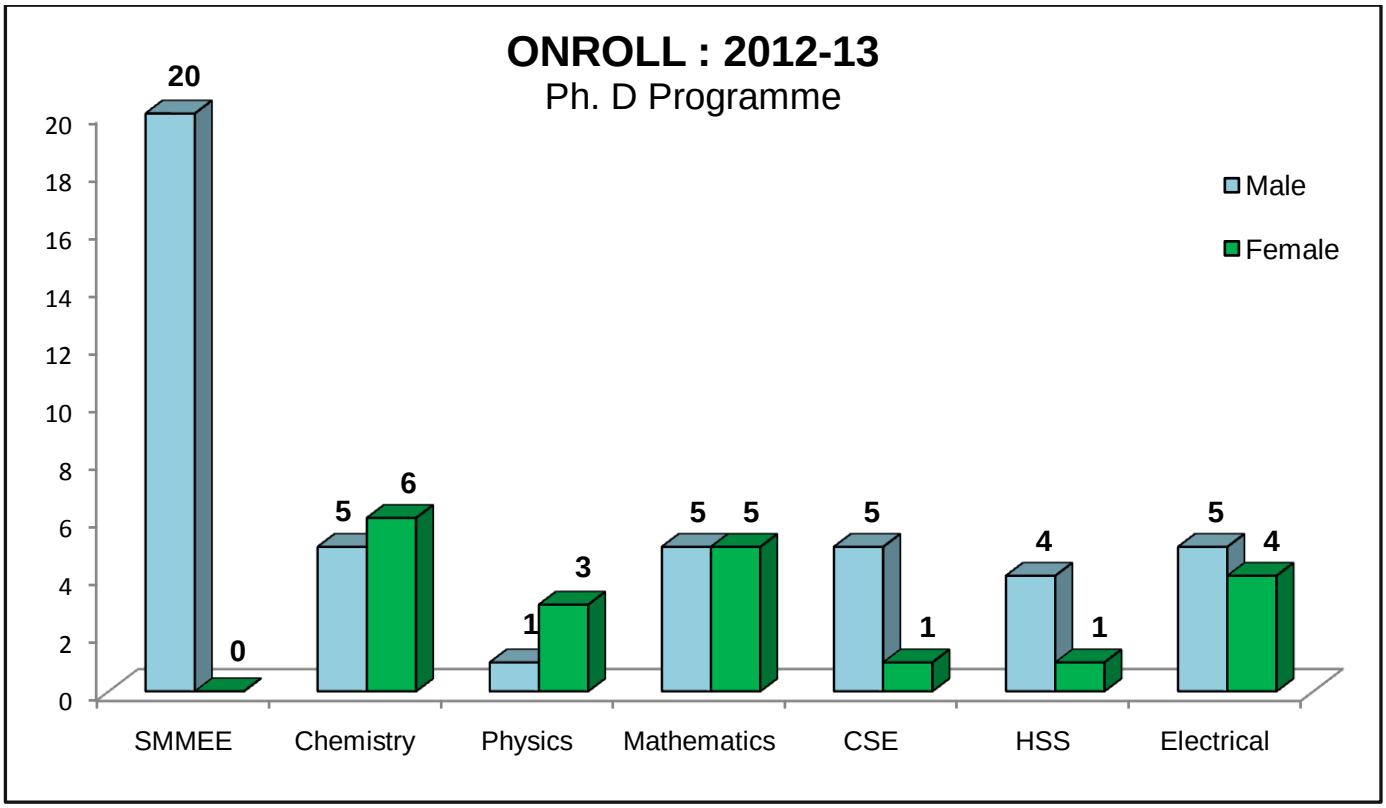





ADMISSION : 2012-13
B. Tech. Programme
50
45
40
35
30
25
20
15
10
5
0
50
5
32
1
16
2
9
0
2
0
GEN
OBC
SC
ST
PD
Male
Female


ONROLL : 2012-13
B. Tech. Programme
200
180
160
140
120
100
80
60
40
20
0
200
15
119
9
66
8
36
2
3
0
GEN
OBC
SC
ST
PD
Male
Female


ADMISSION : 2012-13
Ph. D Programme
Male
Female
SMMEE
Chemistry
Physics
Mathematics
CSE
HSS
Electrical
6
0
1
2
1
0
1
1
1
1
3
1
2
1


ONROLL : 2012-13
Ph. D Programme
Male
Female
SMMEE
Chemistry
Physics
Mathematics
CSE
HSS
Electrical
20
0
5
6
1
3
5
5
5
1
4
1
5
4

FINANCIAL ASSISTANCE TO STUDENTS

The institute offers various scholarships to the students.

MERIT-CUM-MEANS SCHOLARSHIP: The Merit-cum-Means scholarship is given to deserving undergraduate students. These are permissible to about 25% of the students. The present value of merit-cum-means scholarship is Rs. 1000/- per month for general students and the recipient is exempted from paying tuition fee. The criterion of merit for first year is the All India Rank in the JEE. The merit-cum-means scholarship has been provided to the following students in the Academic Year 2012-13.

1st Semester of AY 2012-13

Sr. No.	Entry No.	Name of the Student
1.	P2009CS1001	Pravesh Jain
2.	P2009CS1002	Prateek Mukati
3.	P2009CS1005	Rishi Aggarwal
4.	P2009CS1007	Pankaj Verma
5.	P2009CS1012	Kapil Kumar
6.	P2009CS1016	Santosh Kumar
7.	P2009CS1021	Madhu Rani
8.	P2009CS1022	Vikas Yadav
9.	P2009CS1030	Akinapally Praveen
10.	P2009CS1036	Vikas Mittal
11.	P2009CS1043	Sonu Kumar Giri
12.	P2009EE1039	Kolbudhe Sneha
13.	P2009EE1053	Arun Singh
14.	P2009EE1066	Ankit Bansal
15.	P2009EE1112	Nikant Vohra
16.	P2009EE1116	Anshul Garg
17.	P2009ME1081	Tahir Sheikh
18.	P2009ME1082	Shiv Kumar
19.	P2009ME1084	Vikas Jawaria
20.	P2009ME1099	Lal Singh
21.	P2009EE1069	Ankush Jain
22.	2010CS1004	Abhishek Kumar Arora
23.	2010CS1005	Aditya Gujral
24.	2010CS1007	Amritpal Singh Sehzra
25.	2010CS1011	Choudhary Shubham Shriram
26.	2010CS1012	Deepak Garg
27.	2010CS1025	Narender Yadav
28.	2010CS1038	Vikas Choudhary
29.	2010CS1082	Tanvi Srivastava
30.	2010EE1048	Ashish Jindal
31.	2010EE1056	Karanpreet Singh
32.	2010EE1057	Kaviya Rawat
33.	2010ME1088	Abhishek Singh
34.	2010ME1091	Bhupender Singh Chugh
35.	2010ME1097	Dev Gurera
36.	2010ME1104	Karanveer Singh
37.	2010ME1116	Ravi Sharma
38.	2010ME1119	Sanjeev Rawal
39.	2011CS1008	Gurasis Singh
40.	2011CS1010	Honey Singla
41.	2011CS1011	Imroj Qamar
42.	2011CS1015	Medha Gupta

43.	2011CS1022	Navneet Singh
44.	2011CS1033	Sahil Dabra
45.	2011CS1040	Vikas Almal
46.	2011EE1056	Gitesh Agarwal
47.	2011EE1057	Gourav Bansal
48.	2011EE1058	Harshit
49.	2011EE1064	Mishra Satyaprakash Harvansh
50.	2011EE1068	Pulkit Gera
51.	2011EE1069	Rahul Sharma
52.	2011EE1070	Roshan Agarwal
53.	2011ME1090	Boddu Venkata Nagarjuna Reddy
54.	2011ME1101	Nitin Jain
55.	2011ME1104	Rakesh Kumar
56.	2012CSB1021	Nikhil Gupta
57.	2012CSB1017	Khan Uzair Suhail
58.	2012CSB1020	Mohit Garg
59.	2012CSB1031	Riya Garg
60.	2012CSB1016	Jeevanjot Singh
61.	2012EEB1045	Amit Goyal
62.	2012EEB1051	Avi Rajput
63.	2012MEB1094	Dhruv Kumar Bansal
64.	2012EEB1069	Priyesh Kumar
65.	2012EEB1053	Ayush Khemka
66.	2012EEB1068	Paras Ahuja
67.	2012MEB1082	Aashish Bhardwaj
68.	2012MEB1118	Sushil Kumar Sharma
69.	2012EEB1059	Jasapara Mohit Bharat
70.	2012MEB1120	Vishal Goyal
71.	2012MEB1109	Piyush Rai
72.	2012CSB1028	Raushan
73.	2012CSB1036	Tharshith Gandi
74.	2012CSB1024	Prashant Hariom Patil
75.	2012CSB1035	Shubham Kumar
76.	2012CSB1030	Ritesh Kumar Chaurasia
77.	2012CSB1008	Bokka Divya Priyanka
78.	2012CSB1005	Akshay Prasad Singh
79.	2012CSB1037	Thipparthy Jagadeesh Chandra
80.	2012MEB1103	Kuricheti Raviteja
81.	2012EEB1049	Ashish Singh

2nd Semester of AY 2012-13

Sr. No.	Entry No.	Name of the Student
1.	P2009CS1001	Pravesh Jain
2.	P2009CS1002	Prateek Mukati
3.	P2009CS1005	Rishi Aggarwal
4.	P2009CS1007	Pankaj Verma
5.	P2009CS1012	Kapil Kumar
6.	P2009CS1016	Santosh Kumar
7.	P2009CS1021	Madhu Rani
8.	P2009CS1022	Vikas Yadav
9.	P2009CS1030	Akinapally Praveen
10.	P2009CS1036	Vikas Mittal
11.	P2009CS1043	Sonu Kumar Giri
12.	P2009EE1039	Kolbudhe Sneha
13.	P2009EE1053	Arun Singh
14.	P2009EE1066	Ankit Bansal
15.	P2009EE1069	Ankush Jain
16.	P2009EE1112	Nikant Vohra
17.	P2009EE1116	Anshul Garg
18.	P2009ME1029	Yashpal Chowki
19.	P2009ME1081	Tahir Sheikh
20.	P2009ME1082	Shiv Kumar
21.	P2009ME1084	Vikas Jawaria
22.	P2009ME1099	Lal Singh
23.	2010CS1004	Abhishek Kumar Arora
24.	2010CS1005	Aditya Gujral
25.	2010CS1007	Amritpal Singh Sehzra
26.	2010CS1011	Choudhary Shubham Shriram
27.	2010CS1012	Deepak Garg
28.	2010CS1024	Nancharla Santosh Reddy
29.	2010CS1025	Narender Yadav
30.	2010CS1038	Vikas Choudhary
31.	2010CS1082	Tanvi Srivastava
32.	2010EE1048	Ashish Jindal
33.	2010EE1057	Kaviya Rawat
34.	2010ME1088	Abhishek Singh
35.	2010ME1091	Bhupender Singh Chugh
36.	2010ME1097	Dev Gurera
37.	2010ME1101	Gurdeep Singh
38.	2010ME1104	Karanveer Singh
39.	2010ME1116	Ravi Sharma
40.	2010ME1119	Sanjeev Rawal
41.	2011CS1008	Gurasis Singh
42.	2011CS1010	Honey Singla
43.	2011CS1011	Imroj Qamar
44.	2011CS1015	Medha Gupta
45.	2011CS1022	Navneet Singh
46.	2011CS1033	Sahil Dabra
47.	2011CS1040	Vikas Almal
48.	2011EE1056	Gitesh Agarwal
49.	2011EE1057	Gourav Bansal
50.	2011EE1058	Harshit
51.	2011EE1064	Mishra Satyaprakash Harvansh
52.	2011EE1068	Pulkit Gera
53.	2011EE1069	Rahul Sharma
54.	2011EE1070	Roshan Agarwal
55.	2011ME1088	Ayush Bagla

56.	2011ME1090	Boddu Venkata Nagarjuna Reddy
57.	2011ME1101	Nitin Jain
58.	2011ME1104	Rakesh Kumar
59.	2012CSB1021	Nikhil Gupta
60.	2012CSB1017	Khan Uzair Suhail
61.	2012CSB1020	Mohit Garg
62.	2012CSB1026	Rachit Arora
63.	2012CSB1031	Riya Garg
64.	2012CSB1016	Jeevanjot Singh
65.	2012EEB1045	Amit Goyal
66.	2012EEB1051	Avi Rajput
67.	2012MEB1094	Dhruv Kumar Bansal
68.	2012EEB1069	Priyesh Kumar
69.	2012EEB1053	Ayush Khemka
70.	2012EEB1068	Paras Ahuja
71.	2012MEB1082	Aashish Bhardwaj
72.	2012MEB1118	Sushil Kumar Sharma
73.	2012EEB1059	Jasapara Mohit Bharat
74.	2012MEB1120	Vishal Goyal
75.	2012MEB1109	Piyush Rai
76.	2012CSB1028	Raushan
77.	2012CSB1036	Tharshith Gandi
78.	2012CSB1024	Prashant Hariom Patil
79.	2012CSB1035	Shubham Kumar
80.	2012CSB1030	Ritesh Kumar Chaurasia
81.	2012CSB1008	Bokka Divya Priyanka
82.	2012CSB1005	Akshay Prasad Singh
83.	2012CSB1037	Thipparthy Jagadeesh Chandra
84.	2012MEB1103	Kuricheti Raviteja
85.	2012EEB1049	Ashish Singh

This scholarship is given to the SC students only. According to the term and conditions of this scholarship, awardees will recice a total of Rs. 56670/- toward annual fee, other refundable charges, boarding & loading, books & stationery and PC etc.

INSTITUTE FREE STUDENTSHIP

The Institute offers free studentship to 10% of the students on the basis of means alone. This scholarship has been provided to the following students:-

1st Semester of AY 2012-13

Sr. No.	Entry No.	Name of the Student
1.	2010CS1003	Abhishek Kumar
2.	2010CS1016	Harmandeep Singh
3.	2010CS1026	Naveen Kumar
4.	2010EE1062	Manisha Kumari
5.	2010EE1065	Mohan Choudhary
6.	2010EE1068	Narinder Pal Singh
7.	2010EE1081	Surabhi Rathore
8.	2010ME1092	Bhupendra Singh Kasva
9.	2010ME1094	Brijesh Singh Gurjar
10.	2010ME1113	Nishant Kumar
11.	2010ME1105	Ketan Kumayu
12.	2010EE1047	Arvind Beniwal
13.	2011EE1071	Satyendra Maurya
14.	2011CS1039	Utkarsh Barnwal
15.	2011CS1020	Naveen Kumar
16.	2011CS1016	Mishra Alok Sushil Kumar
17.	2011EE1061	M Raquib Anjum
18.	2011EE1055	Ghanshyam Shahni
19.	2012EEB1070	Rajneekant Jogi
20.	2012EEB1081	Yalagandula Sumanth
21.	2012EEB1052	Avinash Kumar
22.	2012MEB1096	Duddela Sai Harish
23.	2012MEB1095	Dinesh Chauhan
24.	2012EEB1078	Thallati Girish Kumar
25.	2012EEB1062	Manoj Kumar
26.	2012EEB1056	Deepak Jangid
27.	2012EEB1057	Dhiraj Kumar
28.	2012MEB1104	Maneesh Verma
29.	2012EEB1066	Nitish Kumar
30.	2012MEB1112	Raj Kumar

2nd Semester AY 2012-13

Sr. No.	Entry No.	Name of the Student
1.	2010CS1003	Abhishek Kumar
2.	2010CS1016	Harmandeep Singh
3.	2010EE1062	Manisha Kumari
4.	2010EE1065	Mohan Choudhary
5.	2010ME1092	Bhupendra Singh Kasva
6.	2010ME1094	Brijesh Singh Gurjar
7.	2010ME1113	Nishant Kumar
8.	2010ME1105	Ketan Kumayu
9.	2011EE1071	Satyendra Maurya
10.	2011CS1039	Utkarsh Barnwal
11.	2011CS1020	Naveen Kumar
12.	2011CS1016	Mishra Alok Sushil Kumar
13.	2011EE1061	M Raquib Anjum
14.	2011EE1055	Ghanshyam Shahni
15.	2011ME1084	Anurag Patel
16.	2011ME1098	Mahajan Gaurav Jaganath
17.	2011ME1113	Shashank Saurabh
18.	2012EEB1052	Avinash Kumar
19.	2012EEB1057	Dhiraj Kumar
20.	2012EEB1070	Rajneekant Jogi
21.	2012EEB1078	Thallati Girish Kumar
22.	2012MEB1095	Dinesh Chauhan
23.	2012MEB1096	Duddela Sai Harish
24.	2012MEB1112	Raj Kumar

INSTITUTE MERIT PRIZES AND CERTIFICATES

The Institute offers merit prizes and certificates to top 7% of the students of each 4- year B. Tech. programme for the 1st and 2nd semester. A total amount of Rs. 2500/- and a merit certificate is given to these students. The following students received this Scholarship:-

1st Semester of AY 2012-13

Sr. No.	Entry No.	Name of the Student
1.	P2009CS1101	Shruti Tripathi
2.	P2009CS1021	Madhu Rani
3.	P2009CS1034	Tania Garg
4.	P2009EE1046	Ankita
5.	P2009EE1039	Kolbudhe Sneha
6.	P2009EE1069	Ankush Jain
7.	P2009ME1062	Gayathri Lakshmi Kulukuru
8.	P2009ME1100	Rajesh Kumar
9.	2010CS1006	Akshat Mittal
10.	2010CS1001	Abhisaar Sharma
11.	2010CS1012	Deepak Garg
12.	2010EE1048	Ashish Jindal
13.	2010EE1042	Aditya Dalakoti
14.	2010EE1057	Kaviya Rawat
15.	2010ME1122	Somyanshu Arora
16.	2010ME1100	Divyanshu Bhardwaj
17.	2010ME1116	Ravi Sharma
18.	2011CS1009	Harsimran Singh
19.	2011CS1012	Jaskaran Singh Virdi
20.	2011EE1068	Pulkit Gera
21.	2011ME1112	Shah Yash Girish
22.	2011ME1101	Nitin Jain
23.	2012MEB1089	Ankit Khokhar
24.	2012CSB1013	Gaurav Mittal
25.	2012CSB1006	Aniket
26.	2012CSB1032	S Deepak Srinivas
27.	2012EEB1046	Amogh Agrawal
28.	2012CSB1034	Savyasachi
29.	2012EEB1045	Amit Goyal
30.	2012EEB1047	Anshuman Yadav

2nd Semester of AY 2012-13

Sr. No.	Entry No.	Name of the Student
1.	P2009CS1021	Madhu Rani
2.	P2009CS1043	Sonu Kumar Giri
3.	P2009CS1101	Shruti Tripathi
4.	P2009EE1085	Jay Kumar Jain
5.	P2009EE1069	Ankush Jain
6.	P2009EE1116	Anshul Garg
7.	P2009ME1062	Gayathri Lakshmi Kulukuru
8.	P2009ME1108	Rahul Gulati
9.	2010CS1087	Abhimanyu R Niroola
10.	2010CS1001	Abhisaar Sharma
11.	2010CS1020	Kshitij Yogesh Gupta
12.	2010EE1048	Ashish Jindal
13.	2010EE1057	Kaviya Rawat
14.	2010EE1042	Aditya Dalakoti
15.	2010ME1122	Somyanshu Arora
16.	2010ME1100	Divyanshu Bhardwaj
17.	2010ME1116	Ravi Sharma
18.	2011CS1057	Gourav Bansal
19.	2011CS1015	Medha Gupta
20.	2011EE1068	Pulkit Gera
21.	2011EE1061	M Raquib Anjum
22.	2011ME1112	Shah Yash Girish
23.	2011ME1103	R Rohan Prasad
24.	2012EEB1046	Amogh Agrawal
25.	2012CSB1013	Gaurav Mittal
26.	2012CSB1020	Mohit Garg
27.	2012EEB1047	Anshuman Yadav
28.	2012MEB1094	Dhruv Kumar Bansal
29.	2012MEB1089	Ankit Khokhar
30.	2012CSB1038	Vipin A
31.	2012EEB1078	Thallati Girish Kumar

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COORDINATOR: **Dr. Nitin Auluck**

Programme offered: B. Tech & Ph. D

No. of Students: **B. Tech: 153**
Ph. D: 06

Name	Designation	Qualification	Area of research
Dr. Nitin Auluck	Assistant Professor	PhD (University of Cincinnati)	Real-Time Systems, Scheduling.
Dr. Apurva Mudgal	Assistant Professor	PhD (Georgia Tech)	Theoretical Robotics, Approximation Algorithms.
Dr. Deepti Bathula	Assistant Professor	PhD (Yale)	Image Processing, Pattern Recognition.
Dr. K. Sreenivasan	Visiting Professor	PhD (University of Pennsylvania)	Cloud Computing, Performance Modelling.
Dr. Sudarshan Iyengar	Visiting Scientist	PhD (IISc)	Cryptology.
Dr. Balwinder Sodhi	Visiting Faculty	PhD (IIT Kanpur)	Cloud Computing, Software Architecture.

❖ **Ongoing Activities**:

- Teaching and research.
- Six research scholars in the department working on problems in theory and systems.

❖ **Thrust Areas**:

- Real-Time Systems
- Parallel and Distributed Computing
- Theoretical Robotics
- Large Scale Optimization
- Approximation Algorithms
- Image Processing and Pattern Recognition
- Computational Geometry
- Cloud Computing
- Software Architecture
- Performance Modelling
- Cryptography

❖ **Facilities available in Department**

- Three computer labs with a capacity of 40 students each.
- Post Graduate research labs.
- High speed internet access.
- Wi-Fi access.
- Open source computer lab.
- Access to high performance computing servers.
- Access to Linux and Windows powered machines.
- State of the art hardware from Cisco.

Lectures by visiting experts:

Name of the Expert	Topic
Dr. Balwinder Sodhi, IIT Kanpur	"Contemporary Computing Platforms: A Software Architecture Perspective"
Dr. Vivek Mishra	"Simulation based Methods for Optimization October 1, 2012.
Prof. Shalabh Bhatnagar, IISC	"Simultaneous Perturbation Algorithms for Optimization via Simulation" February 26, 2013
Prof. N Viswanadham, IISC	"Innovation in Emerging Markets and Challenges of Network Governance" March 4, 2013.
Prof. N Viswanadham, IISC	"Building Research and Innovation Ecosystem" March 5, 2013

Invited Lectures by Faculty:

Name of the faculty member	Institute Visited
Dr. Nitin Auluck	Real-Time Scheduling on Heterogeneous Multiprocessors", Terminal Ballistics Research Laboratory, DRDO, August 30, 2012.
Dr. Nitin Auluck	"Assessing College Education", Infosys Campus Chandigarh, January 18, 2013.
Dr. Nitin Auluck	"Restricted Duplication based MILP Formulation for Scheduling Task Graphs on Unrelated Parallel Machines", High Performance Parallel Computing Workshop, Punjab University, March 22, 2013
Dr. K. Sreenivasan	US-India Research Forum, Cloud Workshop, Coimbatore, Aug. 2012, "Power Consumption by Cloud Configurations
Dr. K. Sreenivasan	"Digitization of School Education in Punjab Schools". Also moderated a Panel Session of many Vice Chancellors and Presidents of Universities , Feb 14, 2013.

Dr. K. Sreenivasan	Invitee at IIT, Gandhinagar, 2 day workshop at "Indian Classical Mathematics" March 16-17
Dr. K. Sreenivasan	IFOSYS conference on Big Data, Was the Chief Guest to ingrate the Workshop and delivered a lecture on "Cloud March, 21Computing", College of Engineering, Kurukshetra
Dr. Sudarshan Iyengar	IISc Bangalore CCS department "Network thinking" 29th September 2012
Dr. Sudarshan Iyengar	IISER Mohali "Human Way finding: A cognitive approach" Jan 10th 2012
Dr. Sudarshan Iyengar	Manasagangotri, Mysore University "Refresher Course in Cryptography" March 19th 2013
Dr. Sudarshan Iyengar	IISER Kolkata "Spirit of Computing", "Navigational Strategies in Problem Solving", "A tour and detour in Network Science" Feb 18, 19, 20, 2013.
Dr. Sudarshan Iyengar	ISI Kolkata "Understanding Human navigation using network analysis" March 1'2013.
Dr. Sudarshan Iyengar	AIT "A novel approach to Rank WebPages" March 21' 2013.
Dr. Sudarshan Iyengar	PEC Chandigarh "The Joy of Computing", March 27' 2013.

Visits abroad by faculty members:

Organization	Faculty Name
National Taiwan University of Science and Technology, Taipei, Taiwan December, 2012.	Dr. Nitin Auluck
University of Mebourne, March 2013.	Dr. Krishnamachar Sreenivasan

DEPARTMENT OF ELECTRICAL ENGINEERING

HEAD OF THE DEPARTMENT: Prof. Sanjoy Roy

Programme offered: B. Tech & Ph. D

No. of Students: B. Tech.: 148

Ph. D : 09

Name & Designation	Qualification	Area of research
Prof. Sanjoy Roy Head of the Department	Ph. D University of Calgary, Canada	Renewable energy systems: planning and economics, Decision making in power network management
Dr. J. S. Sahambi Associate Professor	Ph. D IIT Delhi	Signal processing, image processing, wavelets, biomedical image processing, embedded systems, DSP based systems.
Dr. Ranjana Sodhi Assistant Professor	Ph. D IIT Kanpur	Wide area monitoring and control systems Application of optimization techniques to power systems Voltage stability assessment and control Power system state estimation power system restructuring
Dr. Ch. Chakradhar Reddy Assistant Professor	Ph. D IISc. Banglore	Mechanism of Conduction and Breakdown in Dielectrics Space Charges in Dielectrics Power equipment (Transformers, Machines, HVDC/AC Cables and accessories) Nano-composite Dielectrics
Dr. Ravibabu Mulaveesala Assistant Professor	Ph. D IIT Delhi	Infrared vision and video processing. Signal and image processing techniques for non-invasive imaging methods. Photo-thermal diagnostics of solids. Non-destructive Testing & Evaluation

❖ **Ongoing Activities:**

- Undergraduate programme in Electrical Engineering
- Sponsored projects as detailed in item No.VI
- Undergraduate laboratory development

1. Analog & digital electronics laboratory
2. Electromechanics laboratory
3. Electromeganetics laboratory
4. Communication laboratory
5. Power & energy computation laboratory
6. VLSI design laboratory

❖ **Research laboratory development**

1. Embedded system laboratory
2. Infrared imaging laboratory
3. Dielectrics measurement laboratory

❖ **Thrust Areas:**

- Wide area monitoring, power system optimization, power system deregulation
- Nanodielectrics
- High voltage engineering
- Infrared Imaging, Non invasive testing
- VLSI design, high frequency interconnects
- Biomedical imaging and signal processing
- Renewable energy systems

Lectures by visiting experts:

Name of the Expert	Topic
Prof. Toshikatsu Tanaka Waseda University, Tokyo,18-22 July 2012	a) Nanodielectrics b) Electrical Treeing

Invited Lectures by Faculty:

Name of the faculty member	Institute visited
Dr. C. C. Reddy	Indian Institute of Technology Madras, July 2012.
Dr. Ranjana Sodhi	IIT Kanpur, 13-14 April 2012.
Dr. J.S.Sahambi	Sant Baba Bhag Singh Institute Of Engg. and Tech, Jalandhar, 12 Sept 2012

SCHOOL OF MECHANICAL, MATERIALS & ENERGY ENGINEERING

COORDINATOR: Dr. Harpreet Singh

Programme offered: **B. Tech. & Ph. D**

No. of Students: **B. Tech: 151**
Ph. D : 20

Name & Designation	Qualification	Area of research
Dr. Anshu Dhar Jayal Assistant Professor	Ph. D University of Utah	Sustainable manufacturing technologies
Dr. Anupam Agrawal Assistant Professor	Ph. D IIT Kanpur	Analysis of Metal Forming Processes Deformation Analysis, CAD/CAM
Dr. Ekta Singla Assistant Professor	Ph. D IIT Kanpur	Robotics, redundant manipulators, robot path planning, collision detection, obstacle avoidance, applied optimization methods - classical and evolutionary, optimal mechanical design
Dr. Harpreet Singh Associate Professor	Ph. D IIT Roorkee	Surface Engineering-Degradation of Materials, High Temperature Corrosion and its Protection, Slurry Erosion of Hydraulic Turbines and its Control, Biomedical Coatings
Dr. Himanshu Tyagi Assistant Professor	Ph. D Arizona State University USA	Thermo-fluids, Bio-heat Transfer, Nanofluids, Nanoscale heat transfer, Clean & Sustainable Energy, Solar Energy, Energy Storage, Turbulent Flows, Combustion, Thermodynamics, Biomass Pyrolysis & Gasification, Ignition Properties of Fuels Containing Nano-Particles, Thermal Management and Packaging of Micro-Electronic Devices
Dr.Jitendra Prasad Assistant Professor	Ph. D Michigan State University USA	Biomechanics, Bone Fracture Healing, Mechanotransduction, Structural and Multidisciplinary Design Optimization, Computational Mechanics, and Agent Based Modelling
Prof. M. K. Surappa (Director)	Ph. D IISc Bangalore	Solidification processing of metal matrix composites and tribology
Dr. Navin Kumar Assistant Professor	Ph. D IIT Delhi	Mechanics and dynamics of Bio and Nano materials and structures, computational and experimental studies on Nano and Bio Material Characterization, Noise and Vibration control, Fault diagnosis

Dr. Prabir Sarkar Assistant Professor	Ph.D IISc Bangalore	Product design, Sustainability and eco design, Creativity and innovation, Engineering design and industrial design, Manufacturing
Dr. Ramjee Repaka Assistant Professor	Ph.D IIT Kharagpur	Heat Transfer, Thermal Engineering, Bioheat Transfer
Dr. Ranjan Das Assistant Professor	Ph. D IIT Guwahati	Thermal and Fluids Engineering, Optimization, Renewable Energy
Dr. Satwinder Jit Singh Assistant Professor	Ph. D IISc Bangalore	Applied Mechanics, Numerical Methods

❖ **Ongoing Activities:**

- UG/PG Teaching
- Research in the Various Areas Reported in the Faculty Profiles Above
- Industrial Consultancy

❖ **Thrust Areas:**

- Design and Analysis, Manufacturing and Materials, Thermal Engineering, Bio-medical Engineering

❖ **Facilities Available in Department**

1. X-Ray Diffraction Machine
2. Scanning Electron Microscope (SEM) /Energy Dispersive Spectroscope (EDS)
3. Gas Turbine Test Rig
4. Linear Parabolic Trough Solar Collector
5. Universal Tribometer (UMT-III)
6. Optical Microscope (Leica)
7. Universal Bulk Hardness Tester
8. Micro-hardness Tester
9. Surface Roughness Tester
10. Light Metal Casting Facility
11. Tube Furnace (1100^{o}C)
12. Muffle Furnace (1400^{o}C)
13. Planetary Ball Mill (P-7, Premium line)
14. Hysitron Nano Indenter TI950
15. CNC Milling and Centre

16. 3-D printer
17. Balancing of Reciprocating Masses test Rig
18. CNC Lathe Machine
19. CNC Vertical Mill Machine
20. Centrifugal Pump System
21. Radial Drill Machine
22. Electric Discharge Machine
23. Coordinate Measuring Machine
24. Electro Dynamic Shaker
25. Active Vibration Control System
26. Vibration Exciter
27. Piezoamplifier
28. Noise level Meter
29. Forced Convection Rig
30. Natural Convection Rig
31. Kuka Robotics Arm
32. Versatile TETRIX Kit
33. Lego Kits
34. Experimental facilities for Micro Controller Studies
35. PLC programme logic controller
36. Universal Testing Machine

Lectures by visiting experts:

Name of the Expert	Topic
Dr. Suhasini Gururaja Indian Institute of Science Bangalore	Processing and Secondary manufacturing effects on advanced composites
Dr. Robert Taylor University of New South Wales, Australia	Solar Thermal: Working Fluids & PV/T
Prof. S. K. Das Indian Institute of Technology Madras	Thermal ablation of tumor using nanoparticle assisted LASER irradiation
Prof. Rudra Pratap Indian Institute of Science Bangalore	Initiation and Execution of Big Interdisciplinary Research Projects: The Role of Vision, Teamwork, and Infrastructure Development.
Prof. K. Chattopadhyay Indian Institute of Science Bangalore	Doing research in India: pages from personal experience.
Prof. S. K. Saha Indian Institute of Technology Delhi	RoCK-BEE: Robotics Competition Knowledge Based Education in Engineering

Invited Lectures by Faculty:

Name of the faculty member	Institute visited
Dr. Himanshu Tyagi	School of Photovoltaic & Renewable Energy Engineering, University of New South Wales, Sydney, NSW, Australia, Apr 2012 ("Harvesting Solar Energy Using Nanofluids-Based Concentrating Solar Collection").
Dr. Himanshu Tyagi	RBCEBTW College, as part of Faculty Development Program on 'Emerging Trends in Nanoscience and Technology' sponsored by Punjab Technical University, India, Jul 2012 ("Role of Nanotechnology in Harnessing Renewable Energy").
Dr. Himanshu Tyagi	National Institute of Technology Hamirpur, as part of the National Workshop on Power Generation from Renewable Energy Sources sponsored by Ministry of New & Renewable Energy, India, Mar 2013 ("Utilizing Nanoparticles for Harnessing Solar Thermal Energy").
Dr. Harpreet Singh	RIMT College of Engineering and Technology, Mandi Gobindgarh, Punjab, India,("Slurry Erosion in Hydroturbines and its Protection") during Punjab Technical University sponsored Symposium on "Recent Advances in Emerging Surface Engineering Practices"
Dr. Harpreet Singh	AICTE-sponsored Faculty development Program, CGS Colleges, Ghuraun, India ("Friction Stir Processing of a Mg-based Alloy")
Dr. Harpreet Singh	During International Conference on "Corrosion in Infrastructure & Chemical Industries (CICI 2012)"during December 6-8, 2012 at ITM Universe Vadodara, India("Comparative High Temperature Corrosion Behaviour of Ni-20Cr Coatings deposited by Various Thermal Spraying Techniques")
Dr. Ekta Singla	University Institute of Engineering and Technology, Chandigarh. Jan 21- 25, 2013-08-05
Dr. Ekta Singla	Chandigarh University, Garuan, March 5, 2013
Dr. Ekta Singla	Thapar University, Patiala, March 21-23, 2013
Dr. Ekta Singla	Dr. Ambedkar Institute of Technology, Bangalore, March 25-29, 2013
Dr. Navin Kumar	"Charaterization of nano materials" Recent innovation in engineering and Technology, 2012, Galaxy Global Educational Institutes, Ambala, India.
Dr. Navin Kumar	Inaugural expert lecture in in FQIP Panjab University Chandigarh, 2013

Dr. Anshu Dhar Jayal	Delivered an invited lecture on “Sustainable Manufacturing: Recent Trends and Future Developments” at theInternational Conference on Global Technology Initiatives, Rizvi College of Engineering, Mumbai, 29-30 Mar, 2013, and chaired two sessions at the conference.
Dr. Anshu Dhar Jayal	Delivered an invited lecture on “Sustainable Micromanufacturing” at the Short Term School on Micromanufacturing, IIT Kanpur, 05 – 10 Nov, 2012.

Visits abroad by faculty members:

Name of the faculty member	Topic
Dr. Harpreet Singh	International Conference on X-Rays & Related Techniques in Research & Industry 2012 (ICXRI 2012) at Penang, Malaysia during July 3-5, 2012
Dr. Himanshu Tyagi	Delivered an invited talk and co-organized the ‘Sustainable Energy Fellowship Workshop & Collaborative Projects’ University of New South Wales, Australia.
Dr. Navin Kumar	Glasgow University, Glasgow, UK for joint research collaboration. (May, 2012-June 2012)

DEPARTMENT OF CHEMISTRY

COORDINATOR: Dr. Narinder Singh

Programme offered: Ph. D

No. of Students: Ph. D: 15

No. of Publications: 39

Name & Designation	Qualification	Area of research
Dr. Narinder Singh	PhD (Guru Nanak Dev University, Amritsar)	Nano-particles and calix[4] arene and tripodal frameworks for chemo-sensor development
Dr. Rajendra Srivastava	PhD (National Chemical Laboratory, Pune)	The design, synthesis and catalytic investigation of functional nanoporous materials and ionic liquids
Dr. T. J. Dhilip Kumar	PhD (Indian Institute of Technology Madras)	Electronic Structure Calculations, Chemical Kinetics and Reaction Dynamics
Dr. C. M. Nagaraja	PhD (Indian Institute of Science, Bangalore)	Inorganic and Molecular Materials Chemistry
Dr. D. Mandal	PhD (Indian Institute of Technology Kanpur)	Organic and Organometallics chemistry
Dr. Yashveer Singh	PhD (University of Allahabad, Allahabad)	Design, development, and evaluation of polymeric biomaterials for drug (anticancer), microbicide (HIV-prevention), and biotherapeutic (protein/siRNA) delivery
Dr. Tharamani C. N.	PhD (Bangalore University, Bangalore)	Electrochemistry, fuel cells, nanostructured materials, electrocatalysis, metal finishing.
Dr. Prabal Banerjee	(National Chemical Laboratory, Pune)	Synthetic organic chemistry
Dr. Avijit Goswami	PhD (Heidelberg University, Germany)	Synthetic organic and polymer chemistry

❖ **Ongoing Activities:**

- Teaching to B. Tech students and PhD students.
- Research work involving the training of PhD students of IIT Ropar, In addition to this department is giving training to M. Tech and summer students of other institutes/universities.

❖ **Thrust Areas:**

- Bio materials, catalysis, Sensors and energy.

Lectures by visiting experts:

Name of the Expert	Topic
Dr. Ashok Kumar Patel (Department of Biophysics, John Hopkins University, Baltimore, USA) 01-November-2012	Title: "Understanding structure of Pyruvate kinase for an effective drug for cancers".
Dr. Ananya Debnath (Max Planck Institute for Polymer Research, Mainz, Germany) 03-October-2012	Title: "Multiscale modeling of processes involving biological macro and long chain molecules".
Dr. V. Ramanathan (University of Stuttgart, in the Department of Physics, Germany) 24-September-2012	Title: "Towards label-free tumour diagnostics using Raman microspectroscopy: Identification of nucleic acid markers".
Dr. Sudip Chakraborty (Colorado State University, Colorado, USA) 12-September-2012	Title: "Molecular Modeling and Simulation of Complex Systems: From Biology to Materials".
Dr. Mily Bhattacharya (DST Women Scientist, IISER Mohali, India) 08-August-2012	Title: "Conformational Excursions of Proteins Heading to Nanoscale Amyloid Assembly".
Dr. Venkatakrishnan, P. (University of Alberta, Edmonton, Canada) 01-August-2012	Title: "Functional Organics via Covalent and Non-Covalent Approaches".
Dr. S. R. C. Vivekchand (Northwestern University, Illinois, USA) 09-July-2012	Title: "Adventures with Nanomaterials and Surface Plasmons".
Dr. Santanu Karan (Polymer Materials Unit, National Institute for Materials Science (NIMS), Tsukuba, JAPAN) 18-June, 2012	Title: "Ultrafast Transport of Organic Solvents through Carbon Nanosheet Membranes: Viscous Flow in 1 nm Pore"
Dr. Sounak Roy (Catalysis Center for Energy Innovation, University of Delaware, USA) 30-May-2012	Title: "Efficient catalysts for NOx abatement"
Dr. V. N. Sivanandam (University of Notre Dame, Indiana, USA. 16-May, 2012	Title: "NMR Applications to Biomolecular Structure and Dynamics"

Dr. Phaneendrasai Karri (The Scripps Research Institute, San Diego, CA, USA) 02-May, 2012	Title: "From Carboxylic Acids to Artificial Nucleic Acids: Molecular Design and Synthesis Towards a Better Understanding of Fundamental Organic and Prebiotic Chemistry".
Dr. Syed Masood Husain, postdoctoral fellow at the University of Freiburg, Germany 09th January, 2013	The role of quinone-hydroquinone tautomers in biosynthesis of natural products
Dr. Easwar Srinivasan, Assistant Professor, Department of Chemistry, Central University of Rajasthan 04th February 2013	Rational Design of Onium-tagged Prolines as Organocatalysts for the Asymmetric Aldol Reaction
Dr. Kalyan K. Sadhu postdoctoral fellow Institut de Science et d'Ingénierie Supramoléculaires Université de Strasbourg, France 07th March, 2013,	Development of fluorogenic bio-application based on supramolecular interactions

Invited Lectures by Faculty:

Name of the faculty member	Institute visited
Dr. T. J. Dhilip Kumar	IIT Guwahati, Dec 19-22, 2012 Theoretical Chemistry Conference (TCS12)

V. Visits abroad by faculty members:

Dr. Narinder Singh and Dr. Rajendra Srivastava
(Visit to UNAM Mexico) 21st July 2012 to 30th July 2012

DEPARTMENT OF PHYSICS

HEAD OF THE DEPARTMENT: Prof. P. K. Raina

Programme offered: Ph. D

No. of Ph. D Students: 04

No. of Publications in Journals: 05

No. of Publications in conferences: 03

Name & Designation	Qualification	Area of research
Prof. P. K. Raina Head of Department	PhD (Indian Institute of Technology Kanpur)	Nuclear Physics and Astrophysics
Dr. Subhendu Sarkar Assistant Professor	PhD (Saha Institute of Nuclear Physics, Kolkata)	Low energy ion beam physics, fabrication of nanostructures on semiconductor surfaces using ion beams, and secondary ion mass spectroscopy
Dr. Shubhrangshu Dasgupta Assistant Professor	PhD (Physical Research Laboratory, Ahmedabad)	Physical modeling in quantum optics, nano-systems, and decoherence in physical systems
Dr. Rakesh Kumar Assistant Professor	PhD (Indian Institute of Technology Bombay)	Experimental Condensed Matter Physics
Dr. Asoka Biswas Assistant Professor	PhD (Physical Research Laboratory, Ahmedabad)	Quantum Computing
Dr. Sanjib Shankar Gupta Assistant Professor	PhD (Clemson University, USA)	Nuclear Physics

- **Ongoing Activities:**
  - Teaching & Research
- **Thrust Areas:**
  - Nuclear Physics and Astrophysics
  - Low energy ion beam physics
  - secondary ion mass spectroscopy
  - fabrication of nanostructures on semiconductor surfaces using ion beams
  - Physical modeling in quantum optics
  - nano-systems, and decoherence in physical systems
  - Experimental Condensed Matter Physics
  - Quantum Computing
  - Nuclear Physics

❖ **Facilities available in department**

- Following labs in the Physics Department
- Physics Lab(UG)
- Spm lab
- Optics lab
- High temperature vaccum furnance lab

❖ **Achievements**

- **Ph. D. Completed**

Dr. Surja Ghorai completed Ph. D. on "Double Beta Decay Study of Some Nuclei in the Mass Range A=76 to 150 within the Deformed Hartree-Fock Model" in 2012 in joint supervision with Prof. P. K. Raina and Dr. A. K. Singh (IIT Kharagpur).

Lectures by visiting experts:

Name of the Expert	Topic
Dr. Swastik Mondal University of Bayreuth, Germany	Unraveling mysteries of boronrich solids through electrondensity analysis March 2013
Dr. Sudhir Kumar Sharma Centre for Nano- Science and Engineering Indian Institute of Science, Bangalore	Implementation of NiTi Shape Memory Materials for Micro-device Applications February 2013
Dr. Pintu Das Institute of Physics, J. W. Goethe University Frankfurt am Main, Germany	Magnetization dynamics in nano/micro-structures using micro-Hall magnetometry January 2013
Dr. Vidhu S. Tiwari Edward University of Ottawa, Ottawa	Hollow core photonic crystal fiber based surface enhanced Raman scattering (SERS) biosensors January 2013
Dr. Kartick Tarafder Lawrence Berkeley National Laboratory, Berkeley	Theoretical Investigation of metalorganic interfaces: An approach from first principles January 2013
Dr. Amar Nath Gupta NINT, University of Alberta, Edmonton	Direct observation of protein folding/ Misfolding using singlemolecule force spectroscopy November 2012
Dr. Harsha Raichur Raman Research Institute C. V. Raman Avenue Sadashivnagar, Bangalore	What can we learn from Neutron star X-ray binaries? October 2012
Dr. Amitava Moitra The Pennsylvania State University, University Park	Magnesium Alloy Design: A perspective on multi-scale modelling August 2012

Dr. Md. Manirul Ali Research Center for Applied Sciences, Academia Sinica, Taipei, Taiwan	Quantum-bit engineering and some novel quantum phenomena August 2012
Dr. Siba Prasad Visva-Bharati University, Santiniketan, West Bengal	Signature of Neutrinos and Higgses at Large Hadron Collider June 2012

Invited Lectures by Faculty:

Name of the faculty member	Institute visited	Topic
Prof. P. K. Raina	Gurukula Kangri Vishwavidyalaya, Haridwar	"Inside the Nucleus : Some Fundamental Scientific Discoveries to probe Micro and Macro Cosmos" March 2013
Dr. Shubhrangshu Dasgupta	Indian Institute of Science Education and Research (IISER) Kolkata	Highly efficient quantum-dot biexciton control for entangled photon generation December 2012

DEPARTMENT OF MATHEMATICS

COORDINATOR: Dr. Madeti Prabhakar

Programme offered: Ph. D

No. of Students Ph. D: 10

No. of Publications in Journals: 01

Publications in conferences (Abstract/Proceedings/ Posters): 15

Book Chapters: 01

Name & Designation	Qualification	Area of research
Dr. Madeti Prabhkar Coordinator	Ph.D (Indian Institute of Technology Delhi)	Low-dimensional Topology
Dr. Arvind Kumar Gupta Assistant Professor	Ph.D (Indian Institute of Techhnology Roorkee)	Continuum and lattice hydrodynamic modeling, exclusion processes & Driven diffusion systems
Dr. Manoranjan Mishra Assistant Professor	Ph.D (Indian Institute of Science, Bangalore)	Fluid dynamics, Scientific computing
Dr. Manju Khan Assistant Professor	Ph.D (Indian Institute of Technology Delhi)	Algebra
Dr. S.C. Martha Assistant Professor	Ph.D (Indian Institute of Technology Guwahati)	Fluid dynamics, Mathematical modelling on water waves Phenomena, integral equation
Dr. Partha Sharathi Dutta Assistant Professor	PhD (Indian Institute of Technology Kharagpur)	Nonlinear Dynamics, Mathematical Biology, Theoretical Ecology

❖ **Ongoing Activities:**

- Teaching & Research

❖ **Thrust Areas:**

- Algebra
- Fluid dynamics
- Cellular Automata
- Scientific Computing
- Integral equation
- Mathematical modelling of traffic flow
- Low-dimensional Topology
- Mathematical modelling on water waves
- Nonlinear Dynamics
- Mathematical Biology
- Theoretical Ecology

- **Facilities available in department**
  - Computing Lab for Research scholars
  - Computing lab Facility for UG Courses offered

Achievements/Awards

1. C. Rana received best poster award at the conference "Mathematics in Chemical Kinetics and Engineering (MaCKie 2013)", February 4-6, IIT Madras, Chennai

Lectures by visiting experts:

Name of the Expert	Topic
Dr. Krishnendu Gongopadhyay IISER Mohali	On the Classification of Unitary Matrices March 2013
Dr. Mahender Singh IISER Mohali	Free Rank Of Symmetry Of Manifolds October 2012
Dr. A S Vasudeva Murthy TIFR Centre for Applicable Mathematics	On the string equation of Narasimha September 2012
Dr. K. V. Srikanth IIT Guwahati	Intrinsic determinants and differential forms May 2012
Dr. Ritumoni Sarma IIT Delhi	On the equation $x^n = g$ in a finite group May 2012
Dr. Somdeb Lahiri PDPU, Gandhinagar	The Egalitarian Equivalent and Gain Max- School min Solutions for Package Assignment Problems May 2012
Dr. Sapna Sharma University of Science & Technology of China, Hefei	A talk on Discontinuous Galerkin methods April 2012

Invited Lectures by Faculty:

Name of the faculty member	Institute visited	Topic & Time
Dr. Manoranjan Mishra	Panjab university, Chandigarh	Modeling of miscible viscous fingering instability, February 2013
Dr. Manoranjan Mishra	IIT Madras, Chennai	Mathematics in Chemical Kinetics and Engineering (MaCKie 2013) February 2013
Dr. Madeti Prabhakar	SMVD University, Katra, India	Knot Theory: An Emerging Area of Topology, March 2013
Dr. Manoranjan Mishra	SMVD University, Katra, India	Modeling of Viscous fingering instability between two miscible fluids March 2013

Dr. S. C. Martha	SMVD University, Katra, India	Role of Integral Equation in Nonlinear Flow problems, March 2013
Dr. Manoranjan Mishra	Berhampur University, Odisha	Mathematical Modeling of a Hydro-dynamical Instability in a Porous media, December 2012
Dr. S. C. Martha	Gaya College, Gaya, India	Mathematical Modelling on very large Floating Structures, September 2012
Dr. S. C. Martha	Berhampur University, Berhampur, India	Integral Equation Method applied to Boundary Value Problems, July 2012
Dr. Manju Khan	Bedlewo, Poland	Unit group of group algebra July 2012
Dr. Madeti Prabhakar	Krakow, Poland	Method of Unknotting Torus Knots and Links, July 2012
Dr. Arvind Kumar Gupta	Beihang University China	Continuum approach to non- lane-based traffic flow, July 2012
Dr. S. C. Martha	Kalinga Institute of Industrial Technology University, Bhubaneswar, India	Integral Equation arising in Fluid Flow Problems, May 2012

Visits abroad by faculty members:

Name of the faculty member	Institute visited	Topic & Time
Dr. Madeti Prabhakar	Osaka City University, Japan	KOOK Seminar, February 2013
Dr. S. C. Martha	San Diego, California, USA	Participated and Presented a paper in the APS- Division of Fluid Dynamics Meeting, November 2012
Dr. Manoranjan Mishra	Beijing, China	Participated in the 23rd International Congress of Theoretical and Applied Mechanics (ICTAM2012) August 2012
Dr. Arvind Kumar Gupta	Beijing, China	Delivered an invited talk International Conference on Engineering And Applied Sciences(ICEAS-12)

		July 2012
Dr. Manju Khan	Bedlewo, Poland	Delivered an invited talk in the Group And their Actions, July 2012
Dr. Madeti Prabhakar	Krakow, Poland	Delivered an invited talk in the 6ECM Conference July 2012

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCE

HEAD OF THE DEPARTMENT: Dr. Rajyashree Khushu Lahiri

Programme offered: Ph. D

No. of Students Ph. D: 05

No. of Publications: 10

Name & Designation	Qualification	Area of research
Dr. Rajyashree Khushu lahiri	Ph.D (IIT Kanpur, India)	American Studies, Gender Studies, Cultural Studies, Literature- Linguistics Interface, Postcolonial Studies.
Dr. Rano Ringo	PhD (IIT Roorkee,India)	Gender studies, Postcolonial studies, and Modern fiction
Dr. Kamal Kumar Choudhary	PhD (University of Leipzig, Germany)	Psycho/Neurolinguistics (Language processing, Neurocognition/ Neurosceince of Language, EEG), Typology, Syntax, Cognitive Science, NLP
Dr. Samresh Bardhan	PhD (Jadavpur University)	Financial Markets, Credit Related Issues, Industrial Finance, Development Economics, Applied Econometrics.
Dr. Smruti Ranjan Behera	PhD(Delhi School of Economics)	Applied Econometrics, Panel Data Econometrics, Industrial Economics, Macroeconomics, and International Economics.
Dr. Somdev Kar	PhD (University of Tübingen, Germany)	Phonetics, Computational Phonology, Optimality Theory, Speech Processing, Natural Language Processing, Morphology

❖ **Ongoing Activities:**

- Teaching UG and PG level courses to B.Tech and Ph.D Students respectively
- Research activities

❖ **Thrust Areas:**

American Studies, Gender Studies, Cultural Studies, Literature- Linguistics Interface, Postcolonial Studies, Phonetics, Computational Phonology, Optimality Theory, Speech Processing, Natural Language Processing, Morphology,Gender Studies, Postcolonial Studies, Modern Fiction, Psycho/Neurolinguistics, Typology, Syntax, Cognitive Science

❖ **Facilities available in your department**

- Language and Linguistics Lab for research and UG teaching.

Lectures by visiting experts:

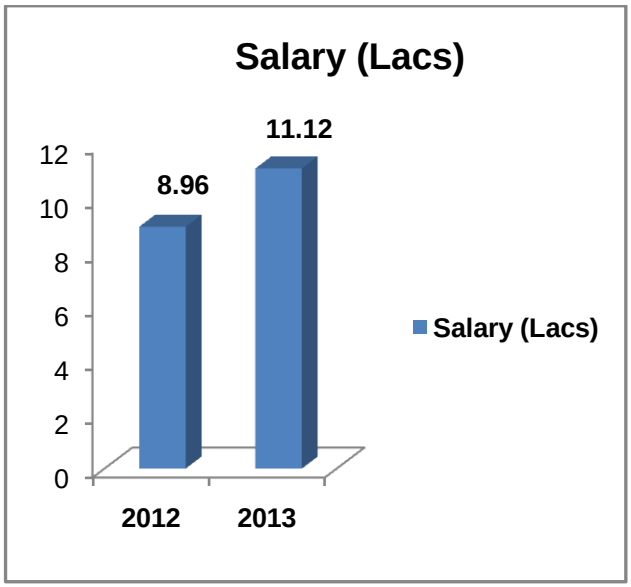
Name of the Expert	Topic
1) Prof. B. N. Patnaik, IIT Kanpur (Former Professor)	Arjuna's Problem and its Resolution in two Mahabharatas
2) Dr. Prema Rajagopalan, IIT Madras	Strategies for the New Knowledge Economy: Towards a Deeper Understanding among Stakeholders.

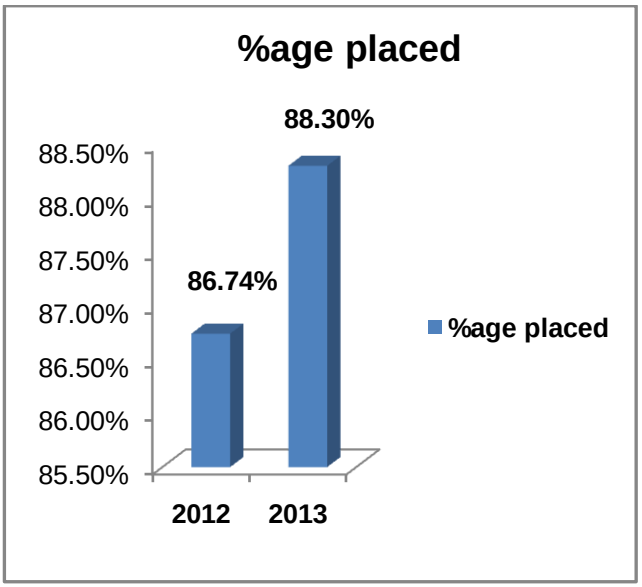
Invited Lectures by Faculty:

Name of the faculty member	Institute visited
Dr. Rajyashree Khushu-Lahiri	a) Birla Institute of Technology and science, Pilani b) Jadavpur University, Kolkata c) IET, Bhaddal
Dr. Kamal Kumar Chaudhary	a) IIT Delhi b) IIT Bombay
Dr. Somdev Kar	a) Thapar University, Patiala

Visits abroad by faculty members:

Name of the faculty members	Institute visited	Topic & Time
Dr. Rajyashree Khushu-Lahiri	University of Illinois at Urban Champaign (UIUC), USA	**Conference in USA** Attended the conference "The Presence of 'America' in India" for paper presentation from 5th to 8th April, 2012
Dr. Somdev Kar	University of Macau, Macau, China	**Workshop in Macau** Invited and attended XI UNL School, workshop organised by the UNDL Foundation March 11-15, 2013.
Dr. Rano Ringo	At IJAS International Conference for Academic Disciplines, held at Ryerson University, Toronto	**Conference in Canada** "RabindraNath Tagore's Treatment of Childhood in his Plays DaakGhar and Achalatayan." 21-24 May 2012.





Our students shone bright on the horizon of the placements and academics too. The placements rose from 86.74% to 88.3%. The most importatnt part was the quality of placements. The average salary last year was 8.96 lpa and this year it was 11.12 lpa.

Our students shone bright on the horizon of the placements and academics.

For the internships too this year a number of students went abroad for internships. The students who went to Aston University UK are:

- Akshat Mittal
- Gurpreet Singh
- Karanpreet Singh
- Ravi Sharma
- Hanit Bansal

Abhisaar sharma from computer science went to école polytechnique de montréal, Quebec, Canada.

Deepak Garg & Kaviya Rawat went to Vetterbi School of engineering, university of south California, USA.

Sanjeev Verma went to national tsing hua university, Taiwan

Gaurav Saini went to Uppsala University Sweden

Ashish Jindal & Somyanshu Arora under the german academic exchange service (daad) went to Germany.

Compared to last year the quality of internships too was very good and a lot of students has gone on a paid internship. The internships in India varied from Rs 4,000 p.m. to 30,000 p.m.

RESEARCH PUBLICATIONS

1. D. A. Fair, J. T. Nigg, S. Iyer, D. R. Bathula, K. L. Mills, N. U. Dosenbach, B. L. Schlaggar,M. Mennes, D. Gutman, S. Bangaru, J. K. Buitelaar, D. P. Dickstein, A. Di Martino, D. N.Kennedy, C. Kelly, B. Luna, J. B. Schweitzer, K. Velanova, Y. F. Wang, S. Mostofsky, F.X Castellanos, M. P. Milham**,** Distinct neural signatures detected for ADHD subtypes aftercontrolling for micro-movements in resting state functional connectivity MRI data, Frontiers in Systems Neuroscience, February 2013.

2. T. G. Costa Dias, V. B. Wilson, D. R. Bathula, S. P. Iyer, K. L. Mills, B. L. Thurlow, C. A. Stevens, E. D. Musser, S. D. Carpenter, D. S. Grayson, S. H. Mitchell, J. T. Nigg, D. A. Fair, Reward circuit connectivity relates to delay discounting in children with attention deficit/ hyperactivity disorder, European Neuropsychopharmacology, 23(1):33-45, January 2013.

3. D. A. Fair, D. R. Bathula, M. A. Nikolas and J. T. Nigg, Distinct neuropsychological subgroups in typically developing youth inform heterogeneity in children with ADHD, Proceedings of the National Academy of Sciences, 109(17):6769-6774, April 2012.

4. Krishnamachar Sreenivasan CSE 2013ASME Packaging Conference Burlingame, CA July 19-23, 2013. "Cooling of Multicore Multiprocessor Chips: Experimental verification for OLTP workloads.

5. S. M. Vijay Mahantesh, Sudarshan Iyengar, M. Vijesh, Shruthi Nayak, Nikitha Shenoy: Prediction of Arrival of Nodes in a Scale Free Network. ASONAM 2012: 517-521

6. Amitash Ramesh, Soumya Ramesh, Sudarshan Iyengar, Vinod Sekhar, C. Pandu Rangan: Obstacles Incentivize Human Learning: A Network Theoretic Study. ASONAM 2012: 1295-1300

7. M. Vijesh, Sudarshan Iyengar, S. M. Vijay Mahantesh, Amitash Ramesh, C. Pandu Rangan, Veni Madhavan: A Navigation Algorithm Inspired by Human Navigation. MASNN 2012: 1309-1314

8. Suhas Venkatesh, Amitash Ramesh, Udaya Shyama, Sudarshan Iyengar: Landmark Identification in Complex Networks. MASNN 2012: 1335-1340

9. S. Roy, "Impact of short duration wind variations on output of a pitch angle controlled turbine". IEEE Transactions on Sustainable Energy, vol. 3, no. 3, July 2012, pp. 566-575..

10. S. Roy, "Inclusion of short duration wind variations in economic load dispatch". IEEE Transactions on Sustainable Energy, vol 3, no. 2, April 2012, pp. 265-273..

11. Ranjana Sodhi, S C Srivastava and S N Singh, "A Simple Scheme for Wide Area Detection of Impending Voltage Instability", IEEE Transactions on Smart Grid, Vol.2, No. 3, pp 818-827, June 2012.

12. Mulaveesala R, Panda S S B, Mude R N, and Amarnath M, Non-destructive evaluation of concrete structures by non-stationary thermal wave imaging, *Progress In Electromagnetics Research Letters*, Vol. 32, 39-48, (30 May 2012).

13. Ghali, V S and Mulaveesala R, Quadratic frequency modulated thermal wave imaging for non-destructive testing, *Progress In Electromagnetics Research M*, Vol. 26, 11-22, (7 Sept 2012).

14. Mulaveesala, R., Ghali, V.S., Arora, V. Applications of non-stationary thermal wave imaging methods for characterization of fibre reinforced plastic materials, *Electronics Letters*, Vol. 49(2), (17 Jan 2013).
15. Rohit Sharma, T. Chakravarty and Kiyoung Choi, "Fast and Efficient Extraction Algorithm for High-Speed Interconnects with Arbitrary Boundaries", Journal of Supercomputing, vol. 62, no. 1, pp.251-264, October 2012.

16. Bhardwaj, V. K., Saluja, P., Hundal, G., Hundal, M. S., Singh, N., & Jang, D. O. (2013). Benzthiazole-based multifunctional chemosensor: Fluorescent recognition of Fe^{3+} and chromogenic recognition of HSO_4^-. Tetrahedron, 69(5), 1606-1610.

17. Kaur, A., Sharma, H., Kaur, S., Singh, N., & Kaur, N. (2013). A counterion displacement assay with a biginelli product: A ratiometric sensor for Hg^{2+} and the resultant complex as a sensor for Cl^-. RSC Advances, 3(17), 6160-6166.

18. Sharma, H., Guadalupe, H.J., Narayanan, J., Höpfl, H., Pandiyan, T., Singh, N. (2013) Pyridyl- and Benzimidazole-Based Ruthenium (III) Complex for Selective Chloride Recognition through Fluorescence Spectroscopy. Anal. Methods, Accepted Manuscript DOI: 10.1039/C3AY40434J,

19. Kaur, K., Bhardwaj, V. K., Kaur, N., & Singh, N. (2013). Fluorescent primary sensor for zinc and resultant complex as secondary sensor towards phosphorylated biomolecules: INHIBIT logic gate. Inorganica Chimica Acta, 399, 1-5.

20. Aguilar, CAH, Narayanan, J, Manoharan, M, Singh, N, Thangarasu P (2013) A Much-Needed Mechanism and Reaction Rate for the Oxidation of Phenols with ClO2: A Joint Experimental and Computational Study, Australian Journal of Chemistry (In Press)

21. Kumar, M., Singh, N., & Singh, H. (2013). Extraction and transport behaviour of tripodal receptor: Selective recovery of Ni^{2+} and processing into nickel nanoparticles. Transactions of the Institutions of Mining and Metallurgy, Section C: Mineral Processing and Extractive Metallurgy, 122(1), 36-41.

22. Kumar. M., Singh. H. and Singh. N., (2013), "Synthesis and Deposition of Ni-20Cr Alloy Powder on SA 516 Steel by Cold Spraying", Surface Engineering. DOI 10.1179/1743294413Y.0000000133

23. Rajkumar Kore, Rajendra Srivastava., A simple, eco-friendly, and recyclable bi-functional acidic ionic liquid catalysts for Beckmann rearrangement * *Journal of Molecular Catalysis A: Chemical* 2013 (376) 90-97

24. Anu Prathap & Thangarasu Pandiyan & Rajendra Srivastava., Cu nanoparticles supported mesoporous polyaniline and its applications towards non-enzymatic sensing of glucose and electrocatalytic oxidation of methanol M. U. *Journal of Polymer Research* 2013 (20) 83

25. Mahesh Tumma, Rajendra Srivastava., Transition metal nanoparticles supported on mesoporous polyaniline catalyzed reduction of nitroaromatics * *Catalysis Communications* 37 (2013) 64–68

26. Rajkumar Kore, R. Sridharkrishna, and Rajendra Srivastava., Synthesis of hierarchical Beta using piperidine based multi-ammonium surfactants * *RSC Advances* 3 (2013) 1317-1322

27. M.U. Anu Prathap, Rajendra Srivastava., Tailoring properties of polyaniline for simultaneous determination of a quaternary mixture of ascorbic acid, dopamine, uric acid, and tryptophan * *Sensors & Actuators: B. Chemical* 177 (2013) 239-250

28. A. Ravindran, R. Kore, R. Srivastava., One-pot synthesis of 3-substituted indole derivatives using moisture stable, reusable task specific ionic liquid catalysts * *Indian Journal of Chemistry: Section B* 52B (2013)129-135

29. M. Samolia and T. J. D. Kumar, "A First-Principles Study of Hydrogen Interaction and Saturation on $ScAl_3$," J. Alloys Compd. 552, 457 (2013)

30. Goh, H., Kim, M. J., Saluja, P., Singh, N., & Jang, D. O. (2012). Dipodal fluorescent chemosensor for Cu^{2+} and resultant complex as a chemosensor for iodide. Tetrahedron Letters, 53(30), 3900-3902.

31. Kaur, K., Bhardwaj, V. K., Kaur, N., & Singh, N. (2012). Fluorescent chemosensor for Al^{3+} and resultant complex as a chemosensor for perchlorate anion: First molecular security keypad lock based on Al^{3+} and ClO_4^- inputs. Inorganic Chemistry Communications, 26, 31-36.

32. Kaur, K., Bhardwaj, V. K., Kaur, N., &Singh, N. (2012). Imine linked fluorescent chemosensor for Al^{3+} and resultant complex as a chemosensor for HSO_4^- anion. Inorganic Chemistry Communications, 18, 79-82.

33. Kaur, K., Kaur, N., & Singh, N. (2012). Imine coupled ZnO based fluorescent chemosensor for the simultaneous estimation of Al^{3+} and Cr^{3+}. Materials Letters, 80, 78-80.

34. Kim, M. J., Kaur, K., Singh, N., & Jang, D. O. (2012). Benzimidazole-based receptor for Zn^{2+} recognition in a biological system: A chemosensor operated by retarding the excited state proton transfer. Tetrahedron, 68(27-28), 5429-5433.

35. Saluja, P., Kaur, N., Singh, N., & Jang, D. O. (2012). A benzimidazole-based fluorescent sensor for Cu^{2+} and its complex with a phosphate anion formed through a Cu^{2+} displacement approach. Tetrahedron Letters, 53(26), 3292-3295.

36. Saluja, P., Kaur, N., Singh, N., & Jang, D. O. (2012). Benzimidazole-based fluorescent sensors for Cr^{3+} and their resultant complexes for sensing HSO_4^- and F^-. Tetrahedron, 68(41), 8551-8556.

37. Saluja, P., Sharma, H., Kaur, N., Singh, N., & Jang, D. O. (2012). Benzimidazole-based imine-linked chemosensor: Chromogenic sensor for Mg^{2+} and fluorescent sensor for Cr^{3+}. Tetrahedron, 68(10), 2289-2293.

38. Sharma, H., Kaur, N., Pandiyan, T., & Singh, N. (2012). Surface decoration of ZnO nanoparticles: New strategies to fine tune the recognition properties of imine linked receptor. Sensors and Actuators, B: Chemical, 166-167, 467-472.

39. Sharma, H., Kaur, N., & Singh, N. (2012). Imine linked 1,8-naphthalimide: Chromogenic recognition of metal ions, density function theory and cytotoxic activity. Inorganica Chimica Acta, 391, 83-87.

40. Sharma, H., Narang, K., Singh, N., & Kaur, N. (2012). Imine linked chemosensors coupled with ZnO: Fluorescent and chromogenic detection of Al^{3+}. Materials Letters, 84, 104-106.

41. Balwinder Kaur, M.U. Anu Prathap, Rajendra Srivastava. Synthesis of transition metal exchanged nanocrystalline ZSM-5 and their application in electrochemical oxidation of glucose and methanol *ChemPlusChem* 77 (2012) 1119-1127

42. R. Kore, R. Srivastava Synthesis of zeolite Beta, MFI, and MTW using imidazole, piperidine, and pyridine based quaternary ammonium salts as structure directing agents *RSC Advances* 2 (2012) 10072–10084 (Accepted 22 August 2012)

43. R. Kore, R. Srivastava Influence of $–SO_3H$ functionalization (N-SO_3H or N-R-SO_3H, where R = alkyl/benzyl) on the activity of Brönsted acidic ionic liquids in the hydration reaction *Tetrahedron Letters* 53 (2012) 3245–3249 (Published on web on 21th April 2012)

44. R. Kore, T.J. Dhilip Kumar, R. Srivastava. Hydration of alkynes using Brönsted acidic ionic liquids in the absence of Nobel metal catalyst/H_2SO_4 *Journal of Molecular Catalysis A: Chemical* 360 (2012) 61–70 (Published on web 26th April 2012)

45. M.U. Anu Prathap, B. Kaur, Rajendra Srivastava. Direct synthesis of metal Oxide incorporated mesoporous SBA-15 and their applications in non-enzymatic sensing of glucose *Journal Colloid and Interface Science* 370 (2012) 144–154 (Published on web on 22th May 2012)

46. Rajkumar Kore, Mahesh Tumma, Rajendra Srivastava. Syntheses and catalytic activities of homogenous and hierarchical ZSM-5 grafted Pd(II) dicarbene complex of imidazole based ionic liquids *Catalysis Today* 198 (2012) 189–196.

47. M.U. Anu Prathap, Bhawana Thakur, Shilpa N. Sawant, Rajendra Srivastava. Synthesis of mesostructured polyaniline using mixed surfactants, anionic sodium dodecylsulfate and non-ionic polymers and their applications in H_2O_2 and glucose sensing *Colloids and Surfaces B: Biointerfaces* 89 (2012) 108–116.

48. Rajkumar Kore, Rajendra Srivastava. Synthesis of triethoxysilane imidazolium based ionic liquids and their application in the preparation of mesoporous ZSM-5 *Catalysis Communication* 18 (2012) 11-15.

49. G. Dutta, D. Mandal, B. D. Gupta, “Pyrazine Bridged Dicobaloximes with Bis(thiophenyl)glyoxime and their Molecular Oxygen Insertion”, *J. Organomet*. *Chem*. 2012, *706-707*, 30-36.

50. S. Panda, S. S. Samantaray and S. C. Martha, Wave Scattering by Small Undulation on the Porous Bottom of an Ocean in the Presence of Surface Tension, ISRN Oceanography, Vol. 2013, Article ID 504879, 6 pages (2013)

51. P. K. Rath, R. Chandra, K. Chaturvedi, P. Lohani, P. K. Raina and J. G. Hirsch. Uncertainties in nuclear transition matrix elements for $\beta^+\beta^+$ and $\varepsilon\beta^+$ modes of neutrinoless double-β decay within projected Hartree-Fock-Bogoliubov model, Physical Review C87, 014301 (2013).

52. G. Bensky, S. V. Nair, H. E. Ruda, S. Dasgupta, G. Kurizki, and P. Brumer, J. "Highly efficient biexciton preparation for quantum-dot entangled photon generation", Phys. B: At. Mol. Opt. Phys. 46 (2013) 055503

53. Deepika, Adrian Balan, Abhay Shukla, Escoffier Walter, and Rakesh Kumar Electronic properties of anodic bonded grapheme.

54. Prabhjeet Kaur Dhillon, Subhendu Sarkar Si nanoripples: A growth dynamical study, Alexis Franquet, Alain Moussa and Wilfried Vandervorst, Appl. Surf. Sci. 258, 9579 (2012).

55. S. K. Ghorui, P. K. Raina, P. K. Rath, A. K. Singh, Z. Naik, S. K. Patra, and C. R. Praharaj Rotational bands and electromagnetic transitions of some Neodymium nuclei in-projected Hartree-Fock model International Journal of Modern Physics E 21, 1250070 (2012).

56. Shweta Garg, and Rajyashree Khushu-Lahiri, "Interpreting a Culinary Montage: Food in Jhumpa Lahiri's Interpreter of Maladies" Asiatic: IIUM Journal of English Language and Literature, Volume 6, Number 1, June 2012, 73-83.

57. Rajyashree Khushu-Lahiri, "Review of Beautiful Thing: Portrait of a Bombay Bar Dancer" Transnational Literature, Vol. 4, Issue 2, May 2012.

58. Urjani Chakravarty and Rajyashree Khushu-Lahiri, "Relevance Theory and New Media: Interpreting Pattern Change in Literary Criticism", Dialog: A Biannual Interdisciplinary Journal, Vol. 22, Spring 2012.

59. Rajyashree Khushu-Lahiri and Shweta Garg. "India on a Platter: a Study of Gurinder Chadha and Paul Mayeda Beres' Cinematic Adaptation of the Mistress of Spices." Postcolonial Text, Reprinted in Contemporary Criticism, Gale Cengage Learning 226 (2012).

60. Rajyashree Khushu-Lahiri and Urjani Chakravarty "A Pragmatic Study of Intercultural Communication in Kiran Desai". Pertanika Journal of Social Sciences & Humanities (JSSH), Volume 21 (1) Mar 2013, 351-360.

61. Choudhary, K. K (2012). Review of the book *English through folktales: A self-study book, by Anand Mahanand & Lalita Goswami (2011)*. New Delhi: Viva Books. Language and Language Teaching, Vol: 1.2, Vidya Bhawan Society Udaipur & Azim Premji University Bengaluru.

62. Kar, Somdev (2013). Slot-specific glide formation in Bangla. International Journal of Dravidian Linguistics, 42(1), 67-83.

63. Kar, Somdev (2012). Voicing agreement in Bangla word-medial clusters. Indian Linguistics, 73(1-4), 175-184.

64. Ringo, Rano."Arvind Adiga's The White Tiger: An Insight into the Facets of a Globalized India." Critical Practice. 19 (2012): 102-115.

65. Arora, H. S., Singh, H. and Dhindaw, B. K., (2013), "Wear Behaviour of a Mg Alloy Subjected to Friction Stir Processing", Vol. 303 (1-2), pp. 65-77.

66. Kaushal, G., Kaur, N., Singh, H. and Prakash, S., (2013), "Effect of Zirconium addition in HVOF-sprayed Ni- 20Cr Coating", Surf. Eng., Vol. 29 (1), pp. 46-54.

67. Grewal, H.S., Arora, H.S., Agrawal, A., and Singh, H., (2013), "Surface Modification of Hydroturbine Steelusing Friction Stir Processing", Appl. Surf. Sci., Vol. 268 (1), pp. 547-555.

68. Grewal, H.S., Singh, H., and Agrawal, A., (2013), “Microstructural and Mechanical Arora, H Characterization of Nickel-Alumina Thermal Sprayed Coatings”, Surf. Coat. Technol., Vol. 216, pp. 78–92.

69. Grewal, H.S., Agarwal, A. and Singh, H., (2013), “Design and Development of High- Velocity Slurry Erosion Test Rig using CFD”, J. Mater. Eng. Perform., Vol. 22, pp. 152–161.

70. Arora, H. S., Singh, H. and Dhindaw, B. K., (2013), “Corrosion Behaviour of a Mg Alloy AE42 Subjected to Friction Stir Processing”, Corros., Vol. 69(2), pp. 122-135.

71. Kumar. M., Singh. H. and Singh. N., (2013), “Extraction and Transport Behavior of Tripodal Receptor :Selective Recovery of Ni^{2+} and Processing into Nickel Nano-particles”, Mineral Processing and Extractive Metallurgy, Vol. 122(1), pp. 36-41.

72. Bhandari, S., Singh, H., Kansal, H. K. and Rastogi, V., (2012), “Slurry Erosion Performance Study of Detonation Gun Sprayed WC-10Co-4Cr Coatings on CF8M Steel under Hydro- accelerated Conditions” J. Thermal Spray Technol., Vol. 21, pp. 1054–1064.

73. Goyal, D., Singh, H., Kumar, H. and Sawhney, B.K., (2012), “Slurry Erosive Wear Evaluation of HVOF- Spray Cr_2O_3 Coating on Some Turbine Steels”, J. Thermal Spray Technol., Vol. 21, pp. 838-851.

74. Grewal, H. S., Singh, H., Agrawal, A. and Arora, H. S., (2012), “Friction Stir Processing of Mild Steel to Enhance its Surface Hardness”, Adv. Mater. Res., Vol. 620, pp. 117–121.

75. Goyal, D., Singh, H., Kumar, H. and Sawhney, B.K., (2012), “Slurry Erosion Behaviour of HVOF Sprayed WC-10Co-4Cr and Al_2O_3 + 13TiO_2 Coatings on Turbine Steel”, Wear, Vol. 289, pp. 46–57.

76. Arora, H. S., Singh, H. and Dhindaw, B. K., (2012), “Numerical Simulation of Temperature Distribution using Finite Difference Equations and Estimation of the Grain Size during Friction Stir Processing”, Mater. Sci. Eng. A, Vol. 543, No. 1, pp. 231–242.

77. Grewal, H.S., Bhandari, S. and Singh, H., (2012), “Parametric Study of Slurry-Erosion of Hydroturbine Steels with and without Detonation Gun Spray Coatings using Taguchi Technique”, Metall. Mater. Trans. A, Vol 43 (9) , pp. 3387-3401.

78. Grewal, H.S., Singh, H., Agrawal, A., and Arora, H.S., (2012), “Friction Stir Processing of Mild Steel to Enhance its Surface Hardness”, Advanced Materials Research, Volume 620, pp. 117-121.

79. Kumar. M., Singh. H. and Singh. N., (2012), “Extraction and Transport Behavior of Tripodal Receptor: Selective Recovery of Ni2+ and Processing into Nickel Nano- particles”, Mineral Processing and Extractive Metallurgy, DOI: 10.1179/1743285512Y.0000000030.

80. Singh, T. P., Singh, H. and Singh, H., (2012), “Characterization and In-Vitro Corrosion Investigations of Thermal Sprayed Hydroxyapatite and Hydroxyapatite-Titania Coatings on Ti-Alloy”, Metall. Mater. Trans. A, Vol 43 (11) , pp. 4365-4376.

81. Soni, S., Tyagi, H., Taylor, R. A., and Kumar, A.,(2013), "Role of Optical Coefficients and Healthy Tissue Sparing Characteristics in Gold Nanorod Assisted Thermal Therapy”, International Journal of Hyperthermia, Vol. 29(1), pp. 87-97.

82. Taylor, R., Coulombe, S., Otanicar, T., Phelan, P., Gunawan, A., Lv, W., Rosengarten, G., Prasher, R., and Tyagi, H., "Small Particles, Big Impacts: A Review of the Diverse Applications of Nanofluids”, Journal of AppliedPhysics, Vol. 113(1), pp. 011301

83. Khullar, V., Tyagi, H., Phelan, P. E., Otanicar, T. P., Singh, H., and Taylor, R. A., (2012), "Solar Energy Harvesting UsingNanofluids-Based Concentrating Solar Collector”, ASME Journal of Nanotechnology in Engineering & Medicine, Vol. 3(3), pp. 031003.

84. Khullar, V. and Tyagi, H., (2012), "A Study on Environmental Impact of Nanofluid-Based Concentrating Solar Water System", International Journal of Environmental Studies, Vol. 69(2), pp. 220-232.

85. Phelan, P., Otanicar, T., Taylor, R., & Tyagi, H., (2013), "Trends and Opportunities in Direct-Absorption Solar Thermal Collectors”, ASME Journal of Thermal Science & Engineering Applications, Vol. 5(2), pp. 021003.

86. Agrawal, A., Ziegert J., Smith, S., Woody, B. and Cao, J., (2012), “Study of Dimensional Repeatability and Fatigue Life for Deformation Machining Bending Mode”, accepted for publication in Transactions of The ASME:Journal of Manufacturing Science and Engineering, Vol 134(6),PP. 61009

87. Das, R., and Dutta, P.P., (2012), “Application of simulated annealing for simultaneous estimation of parameters in a cylindrical fin”, Numerical Heat Transfer: Part A, Vol. 61 (9), pp. 699-716.

88. Das, R., (2012), “Application of genetic algorithm for unknown parameter estimations in cylindrical fin”, Applied Soft Computing, Vol. 12 (11), pp. 3369-3378.

89. Das, R., and Ooi, K.T., (2013), “Predicting multiple combination of parameters for designing a porous fin subjected to a given temperature requirement”, Energy Conversion & Management, Vol. 66, pp. 211-219.

90. Gogoi, T.K., and Das, R., (2013), “Inverse analysis of an internal reforming solid oxide fuel cell system using simplex search method”, Applied Mathematical Modelling, Vol. 37 (10-11), pp. 6994-7015.
91. Gogoi, T.K., and Das, R., (2013), “Inverse analysis of an internal reforming solid oxide fuel cell system using simplex search method”, Applied Mathematical Modelling, Vol. 37 (10-11), pp. 6994-7015.

92. Mallick, A., and Das , R.,(2013), "Application of simplex search method for predicting unknown parameters in an annular fin subjected to thermal stresses", Journal of Thermal Stresses, (Accepted on 18 February 2013).

93. Das, R., and Ooi, K.T., "Application of simulated annealing in a rectangular fin with variable heat transfer coefficient", Inverse Problems in Science & Engineering, (DOI: 10.1080/17415977.2013.764294), 2013. (29 January 2013).

94. Das, R., "Three parameter estimation studies in a radial fin geometry using FDM based simplex method", Heat Transfer Engineering, (Accepted on 18 February 2013), 2013.

95. Mehandia, V., Gautam, J. K., and Nott, P. R., (2012), "Anomalous Stress Profile in Sheared Granular Column", Physical Review Letters, Vol. 109(12), pp. 128002.

96. Varunkumar, S., Rajan, N. K. S., and Mukunda, H. S., (2012), "Experimental and computational studies on a gasifier based stove", Energy Conversion and Management, Vol. 53(1), pp. 135-141.

97. Shukla, A., Singla, E., Wahi, P., and Dasgupta, B., (2013),"A Direct Variational Method for Planning Monotonically Optimal Paths for Redundant Manipulators in Constrained Workspaces, Robotics and Autonomous Systems", Volume 61 (2), pp. 209–220.

98. Kumar, Navin., and Singh, S. P., (2012),"Vibration Control of Curved Panel Using Smart Damping Mechanical Systand Signal Processing", Vol 30, pp. 232–247.

99. Bhowmik, A., Singh, R., Ramjee Repaka, and Mishra, S. C., (2013), "Conventional and newly developed bioheat transport models in vascularized tissues - A review", Therm. Biology Vol 38, p. 107-125.

CONFERENCES PROCEEDINGS/PRESENTATIONS

100. Daya Gaur, Apurva Mudgal, Rishi Ranjan Singh. Routing Vehicles to Minimize Fuel Consumption. Paper/Case presentation at AWTOR '12 (Advanced Workshop and Tutorial on Operations Research 2012), IIM Indore.

101. Jagpreet Singh, Bhargav Mangipudi, Betha Sandeep and Nitin Auluck, "Restricted Duplication based MILP Formulation for Scheduling Task Graphs on Unrelated Parallel Machines", The IEEE International Symposium on Parallel Architectures, Algorithms and Programming, Taipei, Taiwan, December 17-20, 2012, pp. 202-209.

102. Krishnamachar Sreenivasan CSE 2013ASME Packaging Conference Burlingame, CA July 19-23, 2013[Present a paper on chip temperatures and Chair a session]

103. Krishnamachar Sreenivasan Indian Classical Mathematics Workshop, IIT Gandhinagar, Gujarat, April 15-19, 2013.

104. Krishnamachar Sreenivasan, Punjab Digital Education Initiative, Chandigarh, April 21-23, 2013.

105. Krishnamachar Sreenivasan, University of Melbourne, Melbourne, Australia, Virtualization and Remote Learning Conference, April 10-17, 2013.

106. Krishnamachar Sreenivasan, Medical Data bases, Virtualization, Indian Mathematics, Workshop, IIT, Guwahati, May 2-19, 2013.

107. Balwinder Sodhi, Ashish Agrawal and Prabhakar Tadinada. A Multi-dimensional Measure for Intrusion – the Intrusiveness Quality Attribute. In Ninth International , ACM Sigsoft Conference on the Quality of Software Architectures QoSA 2013, Vancouver, Canada, June 17-21, 2013

108. Ranjana Sodhi, S C Srivastava and S N Singh, "Teager Energy based Dynamic Phasor Estimation," INDICON 7-9 Dec.2012

109. Reddy,C C 'Condction and Space Charges in Polymeric Dielectrics and Nanocomposites', IEEE ICIIS 2012, Paper No. 401

110. Reddy, C.C. , "On the thermal breakdown of AC cables and transformer bushings," Properties and Applications of Dielectric Materials (ICPADM), 2012 IEEE 10th International Conference on the , vol., no., pp.1-4, 24-28 July 2012

111. Chahal, J.S., Reddy, C.C., "Simulation of pulsed electro acoustic method of space charge measurement," *Properties and Applications of Dielectric Materials (ICPADM), 2012 IEEE 10th International Conference on the* , vol., no., pp.1-4, 24-28 July 2012

112. Reddy, C.C., "Effect of diffusion on space charge formation in dielectrics under steady-state DC conditions," *Properties and Applications of Dielectric Materials (ICPADM), 2012 IEEE 10th International Conference on the* , vol., no., pp.1-6, 24-28 July 2012

113. Md. Imran Sharieff and Ranjana Sodhi, "PMU Measurements based Voltage Stability Assessment," Nationa Power System Conference 12-14 Dec. 2012, IT-BHU.

114. Mulaveesala, R., V.S. Ghali., and Amarnath M., Matched excitation for thermal nondestructive testing of carbon fiber reinforced plastic materials, Proc. SPIE, 8354-7 (2012).

115. Mulaveesala, R., Venkata Nagarjuna P., Dadda Ravi and Amarnath M., Non-stationary thermal wave imaging techniques for inspection of wooden materials , Proc. SPIE, 8354-11 (2012).

116. V.S. Ghali and Mulaveesala, R., Defect sizing by non-stationary thermal wave imaging, Proc. NDE 2012,ISNT, India (2012).

117. Arora and Mulaveesala, R., Frequency domain based matched excitation approach for non-destructive characterization of carbon fibre reinforced polymers, Proc. NDE 2012,ISNT, India (2012).

118. Rohit Sharma, Erdal Uzunlar, Vachan Kumar, Rizwan Bashirullah, Azad Naeemi and Paul Kohl, “Design and Fabrication of Air-clad TSVs in Silicon Interposer”, *Proceedings of the TechCon Conference*, pp. 1-4, Austin, USA, September 2012.

119. K. Chaturvedi, R. Chandra, P. K. Rath, P. K. Raina Study of neutrinoless positron double beta decay including induced currents in the nuclear structure calculation within PHFB model Proce. of DAE-BRNS Symp. on Nucl. Phys. 57, 194-195 (2012).

120. S. K. Ghorui, S. K. Patra, C. R. Praharaj, P. K. Raina, P. K. Rath Low-lying deformed rotational bands in N = 50 Ge nucleus Proce. of DAE-BRNS Symp. on Nucl. Phys. 57, 362-363 (2012).

121. Soumik Das, Somnath Nag, P. K. Raina, P. K. Rath Large scale shell model calculation for 120−130Sn Proce. of DAE-BRNS Symp. on Nucl. Phys. 57, 356-357 (2012).

122. C. Rana and M. Mishra, "Spatio-temporal behaviour of Viscous fingering on the adsorbed analyte", "Mathematics in Chemical Kinetics and Engineering (MaCKie 2013)", February 4-6, IIT Madras, Chennai

123. S. Pramanik, M. Mishra, (2013), Viscous fingering of a miscible slice with Korteweg stresses: A linear stability theory, Mathematics in Chemical Kinetics and Engineering (MaCKie 2013), February 4-6,Chennai, India.

124. C. Rana, A. De Wit, M. Martin and M. Mishra, (2013) Coupling of viscous fingering and adsorption in chromatographic column, Mathematics in Chemical Kinetics and Engineering (MaCKie 2013), February 4-6, Chennai, India.

125. S. Panda and S. C. Martha, Solution of Cauchy type Singular Integral Equation, 40th Annual conference of Orissa Mathematical Society (OMS-2012) & National conference on Fourier Analysis and Differential Equations, Sambalpur University, Odisha, India, December 29-30, 2012

126. S. Panda and S. C. Martha, Oblique wave scattering by small undulation of the porous bottom in a two-layer fluid, Proc. of 57th Congress of ISTAM, Defence Institute of Advanced Technology, Pune, India, December 17-20, 2012

127. Pramanik, S., and Mishra, M. “Effects of Korteweg stresses on the viscous fingering of a miscible slice in porous media.” 57th congress of Indian Society of Theoretical and Applied Mechanics (ISTAM 2012), December 17-20, Pune, India.

128. S. Panda, S. C. Martha and A. Chakrabarti, Boundary value problems involving flow of multi-layered fluid over undulating bottom in a channel, 2nd International conference on Mathematical Sciences and Applications, India International Centre, New Delhi, India, December 15-16, 2012

129. Mishra, M., De Wit, A., and Sahu, K. C. “Double Diffusive effects between two miscible fluid flows in a channel.” Bulletin of the American Physical Society, 57.17, 65th Annual Meeting of APS Division of Fluid Dynamics (DFD 2012), San Diego, California USA, November 18-20, 2012

130. S. C. Martha and S. Panda, Water-wave diffraction by small undulation on a porous ocean-bed in the presence of surface tension in a two-layer fluid, 65th Annual Meeting of the American Physical Society (APS) Division of Fluid Dynamics, San Diego, California, USA, November 18-20, 2012

131. Pramanik, S., Kulukuru, G. L., and Mishra, M. “Miscible Viscous Fingering: Application in Chromatographic Columns and Aquifers.” COMSOL conference, 2012, November 1-2, Bangalore, India. (Awarded the ‘Best academic paper – Runner-Up’).

132. Pramanik, S., and Mishra, M. “Stability of miscible displacement in porous media: Effect of Korteweg stress”, EUROMECH Fluid Mechanics Conference (EFMC9), 2012, September 9-13, Rome, Italy.

133. Rana, C., Mishra, M., De Wit, A., and Martin, M. "Dispersion in chromatographic columns with non-isoeluotropic." EUROMECH Fluid Mechanics Conference (EFMC9), 2012 September 9-13, Rome, Italy.

134. Sahu, K. C., De Wit, A., and Mishra, M. "Double diffusivity on miscible fluid flow in a channel." 23rdInternational Congress of Theoretical and Applied Mechanics (ICTAM2012), 2012 August 19-24, Beijing, China.

135. Gupta, A. K. "MODELING OF VEHICULAR TRAFFIC FLOW ON HIGHWAY INTERCHANGE USING SECTION APPROACH" International Conference on Engineering and Applied Science at Beijing, China, 24-27 July, 2012.

136. S. Panda, S. S. Samantaray and S. C. Martha, Water Wave Scattering by Small Undulation of the Porous Bottom of an Ocean in the Presence of Surface Tension, National Conference on Industrial Mathematics & Computing, Kalinga Institute of Industrial Technology University, Bhubaneswar, India, May 26-27, 2012

137. Karanvir Saini and Navin Kumar, "Mechanical Response of Gold Nano-wires under Torsion", The 7th Annual IEEE International Conference on Nano / Micro Engineered and Molecular Systems (IEEE-NEMS from 5-8 March), 2012 Kyoto, Japan.

138. Karanvir Saini and Navin Kumar, "Effect of Axial Relaxation on the Torsional Behavior of Cracked Nano-wires", 4th International Conference on Structural Stability and Dynamics (ICSSD-12 from January 4-6), 2012, MNIT, Jaipur, India.

139. Grewal, H.S., Arora, H.S., Agrawal, A., and Singh, H., "Evaluation and Development of Economically viable coatings for Erosion Protection of Hydroturbines", International Conference on Advances in Materials and Processing challenges and opportunities (AMPCO 2012), Organized by Department of Metallurgical and Materials Engineering, Indian Institute of Technology Roorkee, Roorkee, 2–4 November 2012.

140. Grewal, H.S., Arora, H.S., Agrawal, A., and Singh, H., "Cavitation Erosion Studies on Friction Stir Processed Hydroturbine Steel", Fifth International Conference on Solidification Science and Processing, Organized by Indian Institute of Technology Bhubaneswar (ICSSP 2012), Bhubaneswar November 19- 20, 2012

141. Grewal, H.S., Arora, H.S., Agrawal, A., and Singh, H., "Friction Stir Processing of Mild Steel to Enhance Its Surface Hardness", International conference on X-Rays and Related Techniques in Research and Industry (ICXRI 2012), Organized by School of materials and Minerals Resources Engineering, Universiti, Sains Malaysia, Malaysia, July 3-5th, 2012.

142. Grewal, H.S., Arora, H.S., Agrawal, A., and Singh, H., (2012), "Development of Novel Mathematical Model for Slurry Erosion Prediction", Proc. Third Asian Conference on 'Mechanics of Functional Materials And Structures (ACMFMS 2012)', December 5-8, held at Department of Mechanical Engineering, Indian Institute of Technology Delhi, India.

143. Kumar, M., Singh, H., and Singh, N., (2012), "Study of Air Oxidation Behavior of Ni-20cr Alloy Powder Coatings on T22 Boiler Steel", Proc. 'International Conference on Corrosion in

Infrastructure & Chemical Industries (CICI-2012)', December 06-08, held at ITM Universe, Vadodara (Gujrat), India.

144. Joshi, R. S., and Singh, H., (2012), "Modulation Assisted Machining: A Way Out for Particulate Production", 4th International and 25th National 'All India Machine Tool Design and Research (AIMTDR 2012)',December 14-16, held at Jadavpur University Kolkata, India.

145. Joshi, R. S., and Singh, H., (2012) "Deformation in Brass Particulates Produced by Modulation Assisted Machining", 'The European Powder Diffraction Conference (EPDIC 13)', October 28-31, held at Congress Center of MINATEC, Grenoble, France. (Abstract Published).

146. Kaushal, G., Kaur, N., Singh, H., and Prakash., S., (2012), "Analysis of Zirconium Additions in the HVOF Thermal Spray Ni-20Cr Coating for High Temperature Applications," International 'Corrosion Conference And Expo (CORCON 2012)', September 26- 29, Goa, India, Abstract-67.

147. Kaushal, G., Kaur, N., Singh, H., and Prakash., S., (2012), "Comparative High Temperature Corrosion Behaviour of Ni-20Cr Coatings deposited by Various Thermal Spraying Techniques" InternationalConference on 'Corrosion in Infrastructure & Chemical Industries (CICI-2012)', December 6-8, ITM Universe Vadodara, India.

148. Sagi, S., Patel, A. R., Hornung, A., Singh, H., Apfelbacher, A. and Berry, R.F., (2012) "Decentralised Off-Grid Electricity Generation in India using Intermediate Pyrolysis of Residue Straws", 'World Renewable Energy Forum', May 13-17, 2012, held at Denver, Colorado, USA.

149. Sagi, S., Hornung, A., Apfelbacher, A., Patel, A. and Singh, H., (2012) "Conversion of Residue Straws Using Intermediate Pyrolysis for Decentralised Off-Grid Electricity Generation in India", Proc. of '20th European Biomass Conference', June 18-22, held at Milano, Italy, paper code 2DO.11.5.

150. Sagi, S., Hornung, A., Apfelbacher, A., Patel A., and Singh, H. (2012) "Conversion of Agricultural Residues via Intermediate Pyrolysis/CHP with Combined Biochar Application for Rural India" Proc. of '19th International Symposium on Analytical and Applied Pyrolysis', May 21-25, 2012, held at, Linz, Austria.

151. Arora, H.S, Singh, H., Dhindaw, B.K. and Grewal, H.S, (2012) "Improving the Tribological Properties of Mg Based AZ31 alloy Using Friction Stir Processing" accepted for 'Advances in Materials and Processing Challenges and Opportunities (AMPCO 2012)', November 2-4, to be held at Indian Institute of Technology Roorkee, Roorkee, India.

152. Grewal, H.S., Agarwal, A., Singh, H. and Arora, H.S., (2012) "Friction Stir Processing of Mild Steel to Enhance its Surface Hardness" Proc. 'The International Conference on X-Rays and Related Technique in Research & Industry (ICXRI 2012)', June 2-4, held at Universiti Sains Malaysia (USM), Malaysia, pp. 79-80

153. Bala, N., Singh, H., and Prakash, S., (2012), "X-Ray Diffraction Study of Cold Sprayed Ni-20Cr and Ni-50Cr Coatings", Proc. 'International Conference on X-Rays & Related Techniques in Research & Industry 2012 (ICXRI 2012)', July 3-5, held at Penang, Malaysia, pp. 107-108.

154. Tiwari, A.K., and Prasad, J., (2012), “Investigating the Role of Shear Strain in Bone Adaptation,” International Conference on Design of Biomaterials (BIND-12), December 9-11, 2012, Indian Institute of Science (IISc), Bangalore.

155. Bhowmik, A., Singh, R., Ramjee Repaka, and Mishra, S.C., (2012), “ Ultra-Short Pulse Laser: A Potential Tool for Breast Cancer Detection”, 9th International Conference on Flow Dynamics, September 19-21, 2012 at Sendai, Japan.

156. Kapoor H., Gupta S., and Singla E., (2012) "Optimal Synthesis Of Robotic Arm With Degrees Of Freedom As Variable", ASME 2012 Int. Mech. Engg. Congress and Exposition November 2012.

157. Singh S., Gupta S., and Singla E., (2012) "Design Strategy for Modular Customized Manipulators", ASME 2012 Int. Mech. Engg. Congress and Exposition November 2012.

BOOK CHAPTERS:

1. Rohit Sharma, Rajarshi Saha and Paul Kohl, “Low-Loss, High-Performance Chip-to-Chip Electrical Connectivity using Air-Clad Copper Interconnects,” in *High-speed Photonics Interconnects*, Lukas Chrostowski and Krzysztof Iniewski (Eds.), CRC Press, 2013 (invited).

2. Narinder Singh, Navneet Kaur, and Suban Sahoo Quantum Dot Probes Based on EnergyTransfer Mechanisms John F. Callan, Bridgeen McCaughan, Colin Fowley, Quantum Dot Sensors: Technology and Commercial Applications (2013) Pan Stanford Publishing Pte. Ltd.

3. C. M. Nagaraja, Homochiral Metal-Organic Frameworks (MOFs) for Asymmetric Catalysis; “Modern Aspects of Functional Materials” International Journal of Science Research, Tumkur University, 2013, P17-28.

4. Yashveer Singh, Pierre Murat, Nicolas Spinelli, and Eric Defrancq Oligonucleotide conjugates: rationale, synthesis, and applications, , In: From Nucleic Acid Sequences to Molecular Medicine (Volker A. Erdmann and Jan Barciszewski, Eds.), Springer-Verlag, Berlin Heidelberg, Germany, 2012, pp. 85-120

5. Srikumar Panda and S. C. Martha, Water Wave Scattering by Small Undulation of the Porous Bottom in a Two-layer Fluid, Mathematics and Computing: Current Research and Developments, Narosa Publishing House Pvt. Ltd., New Delhi, India, pages 87

6. Rajyashree Khushu-Lahiri & Urjani Chakravarty, “Transforming Language Learning: A Study of Social Networks and Language Learning”. Interfacing ELT with Culture and Technology: Directions for New Classrooms Edited by Pushp Lata, Devika and Gajendra Chauhan. New Delhi: Jain Brothers, October 2012, 99-108.

7. Rajyashree Khushu-Lahiri, ‘’English in India: An Overview’’ Language and Society Edited by Gurpreet Kaur. Bhaddal Tech. Publications, January 2013

SPONSORED RESEARCH PROJECTS:

Sr. No.	Title of the Project	Funding Agency
1.	Algorithms in Computational Geometry by Apurva Mudgal	Department of Science and Technology (D.S.T).
2.	SERC/ET-0083/2012 entitled "Enhancement of Power system Monitoring and stability assessment using synchrophasor Technology	Department of Science and Technology under Young Scientist Scheme.
3.	Detection and prevention of Impending power system voltage stability	Indian Institute of Technology Ropar under IRISD Grant
4.	Design and Optimization of an Ultra Low-loss Interconnect Link on Silicon Interposer	DST, SERB
5.	Smart Phone Based Real-Time Remote Monitoring of Cardiac Patients From Hospital Coronary care unitss (CCI's)	Department of Science and Technology (DST)
6.	Research on Pulsed Electro-acoustic Method of Space Charge Measurements in Dielectrics	Indian Institute of Technology Ropar under ISIRD grant
7.	Synthesis and catalytic applications of crystalline mesoporous materials prepared using hierarchical structure directing agents Principle investigator: Dr. Rajendra Srivastava	Department of Science and Technology (DST)
8.	Synthesis and application of nanoporous π-conjugated polymer-silica nanocomposite materials Principle investigator: Dr. Rajendra Srivastava	CSIR, New Delhi
9.	Synthesis and Catalytic Applications of Hierarchical/Nanocrystalline Zeolite Catalysts Project cost: 33.5 Lakh Principle investigator: Dr. Rajendra Srivastava	DST
10.	Design and Synthesis of New Ratiometric Fluorescent Chemo-sensors: Excited State Proton Transfer involving Keto-Enol	CSIR, India

	Tautomerism. Principle investigator: Dr. Narinder Singh	
11.	Design and Synthesis of Quantum Dot-Based Benzimidazole-Coupled Chemosensors Principle investigator: Dr. Narinder Singh	Indo- Korea
12.	Synthesis of Au(I) complexes luminescent based benzimidazole, pyridyl and amine: Gold nano-particles for sensor development Principle investigator: Dr. Narinder Singh Co-PI: Dr. Rajendra Srivastava	DST-CONACYT
13.	"H_2 storage and Fuel cell materials for renewable energy: Fundamental study on metal hybrid nanostructures." PI: Dr. Dhilip Kumar	DST, New Delhi(13.2 Lakhs)
14.	"Development of porous Metal-organic frameworks for H_2 storage" PI: Dr. C. M. Nagaraja	BRNS, BARC, Mumbai, India, (2013-2016)
15.	"Development of novel transition metal complexes with pincer-type ligands for splitting of Water" PI: Dr. C. M. Nagaraja	CSIR, Govt. of India (2013-2016)
16.	"Development of Porous Chiral Metal-Organic Frameworks (CMOFs) for Heterogeneous Asymmetric Catalysis" PI: Dr. C. M. Nagaraja	DST, Govt. of India, (2012-2015)
17.	Design and development of Schiff base-based pH-sensitive hydrogels for vaginal microbicide delivery PI: Dr. Yashveer Singh	ISIRD
18.	Design and Syntheses of A New Class of Salen Based Metal Complexes: A Search for Catalytic Activity PI: Dr. Avijit Goswami and Co-PI: Dr. Narinder Singh	CSIR, India
19.	Development of [3+3]-cycloaddition of Azomethine Ylide towards the Construction of Piperidine Ring System: Application to the Alkaloids Synthesis PI: Dr. Prabal Banerjee	DST, New Delhi
20.	Scaling and related studies on chemically eroded silicon surfaces	CSIR
21.	Simulation, NTME Calculation and half life measurement for Double Beta Decay of Sn nuclei.	DST, GOI and Italian Ministry of Foreign Affairs (MAE) 2012-2015

22.	Computation Nuclear Transition Matrix Elements calculation for neutrinoless double beta decay within Deformed Hartree-Fock Model	CSIR, GOI 2012-2015, Rs. 20 lacs
23.	Energy and coherence dynamics in photo-synthetic bacteria	SERB, Dept of Science and Technology, Govt of India 2013-2016, Rs.13.62 lacs
24.	Research Activities between IIT Ropar – Imperial College London	UKIERI
25.	Hyper Velocity Impact Induced Deformation of the Target-Projectile System	DRDO, New Delhi
26.	Sustainable Energy Fellowship Workshop & Collaborative Projects	University of New South Wales, Australia
27.	Assessment of Thermally Induced Damage of Healthy Cell Volume During Radiofrequency Ablation of Breast Malignant Tissues	DST, New Delhi
28.	Hyper Velocity Impact of Projectile through molecular simulation	DRDO
29.	Design Noise Barrier for Baffle Range	DRDO

OTHER THAN RESEARCH PROJECT

(Amount in Lacs)

Sr. No.	Title of Project	Projct Investigator	Funding Agency	Total funds approved for Project
1.	Protototype Development and Innovation Fund	Dr. Nitin Auluck, Assistance Professor Dept. of CSE	Punjab Technical University Jalandhar	Rs. 220 Lacs
2.	Expansion of Technology Incubation & Development of Enterpreneurs (TIDE)	Dr. Nitin Auluck, Assistance Professor Dept. of CSE	Dept. of Electronics & Information Technology Innovation & IPR Division, Govt. of India	Rs. 155 Lacs
3.	Rural Technology Action Group (RuTAG)	Dr. Harpreet Singh, Associate Professor, (SMMEE)	Department of Science & Technology, Govt. of India	Rs. 119.98 Lacs
4.	National Knowledge Network (NKN)	Dr. Ekta Singla, Assistance Professor (SMMEE)	National Informatics Center Servides Inc., Ministry of Communicatio & Information Technology, Govt. of India	Rs. 98.76 Lacs

INDUSTRIAL CONSULTANCY

Sr.No.	Title of Project	Project Invenstigator	Funding Agency	Total funds approved for Project (Rs.)
1	Design an effective Noise barrier for the baffle range	Dr. Navin Kumar Assistant Professor SMMEE	DRDO- TBRL	17,10,000/-
2	Microsoft Machine Translation and Speech Research	Dr. Somdev Kar Assistant Professor Humanities & Social Science	Microsoft Corporation USA and Appen Butler Hill Group, USA	USD $8,750/-

FACULTY INITIATION GRANT

IIT Ropar provides grant under faculty initiation grant. The grant is sanctioned to new faculty members for developing his/her research infrastructure for a period of three years and funding for this grant will be met from ISIRD fund. The new faculty members must apply for this grant within one year from the date of joining the institute. The grant is utilized for the purpose of laboratory equipment, consumables, software and for technical visits.

The following faculty members have been sanctopned gramts for carrying out research projects.

Sr.No.	Title of Project	Project Investigator	Total Outlay (Rs.)
1	Research on Pulsed-Electro-Acoustic Method of Measurement of Space Changes in Dielectric Materials	Dr. C.C. Reddy Assistant Professor Electrical	57,50,000
2	Online Language Comprehension	Dr. Kamal Kumar Choudhary Assistant Professor Humanities and Social Science	59,00,000
3	An Investigation of use of active infrared thermography for non-invasive imaging applications	Dr. Ravibabu Mulaveesala Assistant Professor Electrical	70,00,000
4	Modeling and Performance Optimization of 3D Chip to Chip Interconnect Pathway	Dr. Rohit Y Sharma Assistant Professor Electrical	39,81,111
5	Detection and Prevention of Impending Power System Voltage Instability	Dr. Ranjana Sodhi Assistant Professor Electrical	9,00,000
6	Development of Porous Metal-Organic Coordination Polymers for H2 Storage and Selective CO2 Adsorption	Dr. Nagaraja Mallaiah Assistant Professor chemistry	36,00,000
7	Development and characterization of highly active cathode materials for polymer electrolyte membrance fuel cells	Dr. C. N. Tharamani Assistant Professor Chemistry	41,00,000

STUDENTS ACTIVITIES

Zeitgeist'13

The mega cultural festival of IIT Ropar saw huge participation from colleges across the country. The three day amalgamation ofentertainment, excitement and puisance was full of unique events ranging from regional culture, music, dance, art and dramatics to literary. Innaugrating with the regional cultural event of 'Gathka' Zeitgeist scaled new heights, the The local Train- The band' charged the atmosphere with their electrifying musicwhen they performed at the 'Star event'.Punjabi flavour was given to the festival by a rocking performance by latest punjabi sensation 'Jassi Jasraj' supporting the event, to the concluding part with a professional DJ- 'DJ Li'l B' Zeitgeist made every single breath unforgettable.

Freshers' Night

IIT Ropar is a very special place and studentsjoining this institution deserve a warm welcome. After years of hardworkput in by them to crack one of the toughest entrance examinationin the world, IIT-JEE, Freshers' Night was a welcome break for them. The enthusiasm and the fervor of the event that was replete with scintillating dance and dramatics performances was a great treat for the eyes. The second year students welcomed the fresh batch of students with great vigour.

Dandiya night

On the very occasoion of 'Durga Pooja' or some call it as dussehra, The celebration of the victory of good over bad was renewed with a dandiya night where all the students showed their best participation in enjoying and making others enjoy the event even if they knew the rituals or not.

Deepawali Celebration

With the Examinations reaching at a great pace and unlike other times most of the people not getting a chance to pay visit to their parents, everyone made great contribution with ultimate enthusiasm to make the whole campus a clean and glowing homely structure with the lights shining at every wall, diyas glowing at every roof and rangolis present all around.

Lohri celebration

The celebration of upcoming agricultural winter festival was also celebrated collectively by students and faculty from all corners of India at IIT-Ropar. The dance event was followed up after completing all the religious event associated with the festival.

Farewell

With the students of 2009 batch ready to pass out and move on with their lives, their juniors from 2010 batch had a memorable night for them. The seniors received a pleasant treat full of entertainment, energy, and superb feelings with a memento and wishes for their great life ahead.

Holi

In the festival of colours, the festival of feelings, the festival of sharing, the festival of forgiveness all the students just forgot about any tensions or grudges and enjoyed to the fullest with the family they created at IIT- Ropar.

Rashmi (Poetry event)

Continuing the success of our poets, this time Rashmi got a huge participation. It proved a better entertainment and a new inspiration to the emerging ones.

Inter IIT Sports Meet 2012

A group of 95 contingents participate in the 47th inter IIT sports meet held at IIT Kharagpur. This Year a new girls team in basketball also participated. We were at 5th position in march past among all 15 IIT's. Seven days of inter IIT sports meet was nice and peaceful in IIT Kharagpur.

Inter Year Sports Tournament 2012

We organized a sports tournament among all the boys hostels. In every sport each hostel's team participated and distributed trophies in each game to the winning hostels.

Cricket League-PPL (Punjab Permier League)

We collected names of all cricket players from all the batches and made 5 icon players that was owner of each team. Next we had auction for all players and completed 5 teams. Like IPL, we settled matches among all the teams and the winning team got the trophy.

Football Premier League

Along the lines of PPL, we organized a league in football also. 4 teams made and textures among all teams.

Mixed Matches

We organized fun-filled, Cricket, Football and Volley ball mixed matches for boys and girls.

OTHER ACTIVITIES

A plethora of other activities were organized throughout the year including Fresher's Nite, Liteerary Week, Chess competition, Independence Day celebrations and saraswati Pooja.

The academic year saw the intiation of the IIT Roar chapter of Spice-Macay were its highlight. A couple of performances by Monisha Nayak and Mangniyar Group.

Finally, the year witnessed the introduction of the Inter-Hostel General Championship. The week-long event had most of the students participating in several cultural activities.

CENTRAL LIBRARY

1. INTRODUCTION

Central Library of IIT Ropar is an invaluable source of information services which plays a vital role in furthering the academic and research mission of Institute by acquiring, processing, preserving and disseminating of knowledge and information resources. The objective of the library is to provide its users the required information resources such as monographs, books, reports, multi-volume reference works, dictionaries, encyclopedias, handbooks, periodicals with the appropriate delivery systems and services in order to support the Institute to achieve excellence in teaching, learning and research and community service.

2 COLLECTIONS DEVELOPMENT

Development of collection is one of the important functions of the library which includes books, journals, reports, pamphlets and other reading material in science, engineering, technology, humanities and social sciences. The growing collection which binds the user with the library comprises of various kinds of books viz., textbooks, reference works, dictionaries, handbooks, encyclopedias, reports of research monographs, multi-volume reference works etc. in print as well as electronic form; e-journals, CDs/DVDs of various information resources etc. The library currently has a collection of more than 9600 books which include books on Hindi language. Library also having BTB (B. Tech. Project) reports in print and digital format.

3 Electronic Resources

The Central Library facilitates online access to thousands of e-journals through direct subscription and participation in consortia, such as INDEST-AICTE. The library also provides online access to citations and scientometric database such as Scopus and MathSci.Net. The library presently provides access to the following publishers' Electronic Resources.

*3.*1 Full-Text Electronic Journals and Books:

- Access Engineering Library (DEL) - McGraw-Hill's E-Books
- ACLS Humanities E-Books
- ACM Digital Library
- ACS Archive and Current Journals
- AIP Digital Archive and Current Journals
- ANS Journals and Magazines
- Annual Reviews
- APS Journals with PROLA
- ASME Digital Library
- Association for Psychological Science Journals
- ASTM Standards and Digital Library
- Cambridge University Press Selected Journals
- IEL Online (IEEE Xplore Digital Library)

- IMechE Digital Archive and Current Journals
- IOP Science Digital Archive and Selected Current Journals
- JSTOR
- Nature Journals
- Optical Society of America Online
- Oxford University Press Mathematics and Physical Sciences Journals
- Project MUSE
- Royal Society of Chemistry Digital Archive and Current Journal
- Royal Society Proceedings A: Mathematical, Physical and Engineering Sciences
- Sage selected Journals
- ScienceDirect
- Science Online
- SIAM Digital Archive and Current Journals
- Springer Lecture Notes in Physics
- Springer Online Journals
- Taylor & Francis Journals- Science & Technology Library
- Thieme Selected Journals
- Wiley-Blackwell Selected Journals
- World Scientific Selected Mathematics Journals

3.2 Bibliographic Resources

- Scopus (Scientometric database)
- MathSciNet
- ICCC

4 LIBRARY SERVICES

The main function of the library is to provide information services and access to bibliographic and full-text digital and printed sources to support scholarly and information needs of students and research scholars. The library currently provides following services on regular basis:

4.1 Circulation

The library circulation operations are automated using LIBSYS software. During the academic year 2012-13, a total of 9151 documents were issued to all categories of users.

4.2 Reference Service

The library has a separate reference section meant for in-house reading with a seating capacity for 120 students. Reference queries are responded to immediately by qualified library professionals on one-to-one and e-mail basis.

4.3 Library OPAC (Online Public Access Catalogue)

The OPAC is one of the most widely used services of the library and is accessible 24X7 via library web page. The library facilitates following two types of OPAC services:

4.3.1 Web-OPAC

The Web-OPAC, besides listing all the documents available in the library, allows on-line status of an individual's account, reservation of desired documents, and current status of a particular book. OPAC is searchable by author, title, publisher, subject and several other fields.

4.3.2 Union OPAC

The Union-OPAC of library, in addition to its own database, also provides access to other library databases, such as that of other IITs, Research Centers, and WorldCat etc. It has been integrated with Google Web Technology which covers pages from Google books and offers "my cart" facility to selectors.

4.4 Digital Library

A separate facility of digital library is provided for users in order to access online full-text journals and electronic books.

5 WORKING HOURS

5.1 Issue/Return Timings

- On weekdays: 09:00 AM - 1:00 PM and 1:45 PM - 5:30 PM (except holidays)

5.2 Reference Timings

- During Academic Session: 09:00 AM - 12:00 MIDNIGHT
- During Minor and Major Exams: 09:00 AM - 02:00 AM
- During Vacation: 09:00 AM - 06:00 PM

6 LIBRARY AWARDS

The library was awarded for highest usage of online resources by following publishers:

- **Nature Journals:** Best new IIT user-INDEST consortia.
- **Science Direct:** For highest "Science Direct" usage among new IIT's.
- **Scopus:** For highest "Scopus" usage among new IIT's.

PIONEER BATCH (2009) OF IIT ROPAR

	Computer Science & Engineering	Electrical Engineering	Mechanical Engineering
Placed in India	28	27	22
Placed abroad	4	0	0
Higher studies (India)	4	5	3
Higher studies (Abroad)	0	2	1

LIST OF DEGREE AWARDEES

DEPARTMENT COMPUTER SCIENCE & ENGINEERING

Sr. No	Entry No.	Student Name
1.	P2009CS1001	Pravesh Jain
2.	P2009CS1002	Prateek Mukati
3.	P2009CS1003	Gupta Chirag Devakinandan
4.	P2009CS1004	Sachin Gajraj
5.	P2009CS1005	Rishi Aggarwal
6.	P2009CS1006	Dhara Singh
7.	P2009CS1007	Pankaj Verma
8.	P2009CS1008	Deepak Kumar Sharma
9.	P2009CS1009	Sumit Nimiwal
10.	P2009CS1011	Kamaldeep Singh Thethi
11.	P2009CS1012	Kapil Kumar
12.	P2009CS1013	Dinesh Kumar
13.	P2009CS1014	Shashank Verma
14.	P2009CS1015	Anuj Jain
15.	P2009CS1016	Santosh Kumar
16.	P2009CS1017	Arink Verma
17.	P2009CS1019	Gaurav Chand Katoch
18.	P2009CS1021	Madhu Rani
19.	P2009CS1022	Vikas Yadav
20.	P2009CS1024	Shikhar Srivastav
21.	P2009CS1027	Shashank Gupta
22.	P2009CS1028	Praneeth Yenugutala
23.	P2009CS1030	Akinapally Praveen
24.	P2009CS1033	Arpit Sharma
25.	P2009CS1034	Tania Garg
26.	P2009CS1036	Vikas Mittal
27.	P2009CS1037	Rohit Agarwal
28.	P2009CS1043	Sonu Kumar Giri
29.	P2009CS1068	Ankita
30.	P2009CS1072	Aayush Bahuguna
31.	P2009CS1092	Sumit Bansal
32.	P2009CS1101	Shruti Tripathi
33.	P2009CS1110	Deepak Sachdeva
34.	P2008CS1010	Gaddam Sunil Kumar

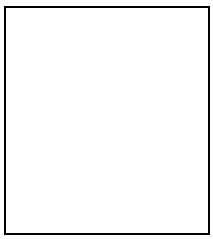
DEPARTMENT ELECTRICAL ENGINEERING

Sr. No.	Entry No.	Student Name
1.	P2009EE1038	Nahar Piyush Anil
2.	P2009EE1039	Kolbudhe Sneha
3.	P2009EE1040	Katkar Shubhankar Milind
4.	P2009EE1041	Madan Lal Bhari
5.	P2009EE1042	Mukul Daga
6.	P2009EE1044	Kuldeep
7.	P2009EE1045	Bhairu Dan Barhath
8.	P2009EE1046	Ankita
9.	P2009EE1047	Ashish Pathak
10.	P2009EE1048	Vikas Lakhanpal
11.	P2009EE1049	Kuldeep Singh
12.	P2009EE1050	Sidhant Duggal
13.	P2009EE1051	Prashant Kumar
14.	P2009EE1053	Arun Singh
15.	P2009EE1055	Ashish Kumar Chowdhary
16.	P2009EE1056	Shivam Rajput
17.	P2009EE1057	Mayank Pratap Singh
18.	P2009EE1058	Asmita Singh
19.	P2009EE1059	Saurabh Agrawal
20.	P2009EE1060	Krishna Hitesh P
21.	P2009EE1061	Vidhatre Venkat Gathey
22.	P2009EE1064	Surla Aravind Kumar
23.	P2009EE1065	Navneet
24.	P2009EE1066	Ankit Bansal
25.	P2009EE1069	Ankush Jain
26.	P2009EE1070	Himanshu Popli
27.	P2009EE1071	Anita Puar
28.	P2009EE1073	Aditya Arora
29.	P2009EE1078	Jasvin Duryodhan Raut
30.	P2009EE1080	Anurag Dadheech
31.	P2009EE1085	Jay Kumar Jain
32.	P2009EE1107	Kunal Goyal
33.	P2009EE1112	Nikant Vohra
34.	P2009EE1116	Anshul Garg
35.	P2009EE1118	Malekar Rutvik Ravindranath
36.	P2008EE1016	Mithlesh
37.	P2008EE1082	Randhir Kumar

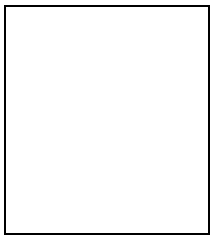
DEPARTMENT MECHANICAL ENGINEERING

Sr. No.	Entry No.	Student Name
1.	P2009ME1018	Deepak Raj
2.	P2009ME1025	Jyotiraj Thakuria
3.	P2009ME1029	Yashpal Chowki
4.	P2009ME1062	Gayathri Lakshmi Kulukuru
5.	P2009ME1074	Abhishek Ghosh
6.	P2009ME1075	Neeharika Kushwaha
7.	P2009ME1076	Shah Tejas Pradeep
8.	P2009ME1077	Narkhede Shridhar Wasudeo
9.	P2009ME1079	Ajay Kumar Verma
10.	P2009ME1081	Tahir Sheikh
11.	P2009ME1082	Shiv Kumar
12.	P2009ME1084	Vikas Jawaria
13.	P2009ME1086	Aditya Khokhar
14.	P2009ME1088	Lalit Kumar Aggarwal
15.	P2009ME1089	Vivek Dharnia
16.	P2009ME1090	Ajeet
17.	P2009ME1091	Kartikey Grover
18.	P2009ME1093	Akash Deep Badhawan
19.	P2009ME1096	Mudit Verma
20.	P2009ME1097	Ankush Kumar
21.	P2009ME1099	Lal Singh
22.	P2009ME1100	Rajesh Kumar
23.	P2009ME1102	Sashwat Tanay
24.	P2009ME1103	Manish Anand
25.	P2009ME1104	Salibindla Ashwanth K. Reddy
26.	P2009ME1106	Puneet Mahananda
27.	P2009ME1108	Rahul Gulati
28.	P2009ME1109	Harshpreet Singh Bhatia

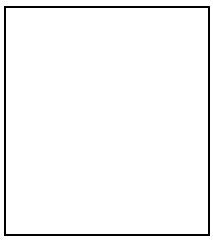
LIST OF MEDALS AWARDEES



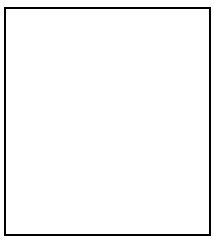
The PRESIDENT GOLD MEDAL for obtaining the highest CGPA among the graduating students of the bachelor of Technology in the year 2012-13 has been awarded to _____ of _____.



The DIRECTOR GOLD MEDAL for the best all rounder amongst the graduating students of the bachelor of Technology in the year 2012-13 has been awarded to _____of _____.



The INSTITUTE SILVER MEDAL for obtaining the highest CGPA amongst the students graduating under the Bachelor of Technology programme in _____has been awarde to_____.



The INSTITUTE SILVER MEDAL for obtaining the highest CGPA amongst the students graduating under the Bachelor of Technology programme in _____has been awarde to_____.

CAMPUS AMENITIES

The Institute has the following facilities in addition to the classrooms, laboratories in the transit campus.

- Separate Hostels for boys and girls with dining facilities, recreation facilities, indoor games and internet connectivity.
- Medical Centre with basic medical facilities
- Sports facilities like Cricket Ground, Football Ground, Volley ball Ground, Hockey Ground and Tennis Court indoor games like Table Tennis & Badminton,etc.
- Residential accommodation for faculty and staff
- Guest house
- State Bank of India IIT Ropar Branch
- Post office