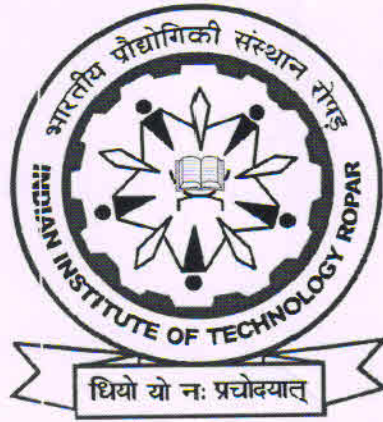# INDIAN INSTITUTE OF TECHNOLOGY ROPAR

EXTERNAL PEER REVIEW OF IIT ROPAR

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INDIAN INSTITUTE OF TECHNOLOGY ROPAR

EXTERNAL PEER REVIEW

I. PREAMBLE

1. Composition of the Committee :

The External Peer Review Committee was constituted by the Council of IIT with the following members:-

i)   Prof. R. Natarajan, former Director, IIT Madras
ii)   Prof. L. M. Patnaik, Professor in Dept of Science & Automation, IISc. Bangalore
iii)   Prof. Y. S. Rajan, Honorary Distinguished Professor, ISRO/DOS Bangalore.
iv)   Dr. Kota Harinarayana, former VC, University of Hyderabad.
v)   Prof. Gautam Barua, former Director, IIT Guwahati

Prof. Harinarayana and Prof. G. Barua could not attend the meeting due to unforeseen circumstances. Hence committee consisting of Prof. Natarajan, Prof. Patnaik and Prof. Rajan conducted the peer review of IIT Ropar.

2. The Tasks :

The Peer Review Committee's main task is to review the academic/research and other activities of Ropar with respect to but not limited to the following.

i)   New Academic Programmes; specially efforts at promoting collaborative, interdisciplinary academic programmes.
ii)   Faculty recruitment, retention and faculty development.
iii)   Infrastructure Development, especially development of laboratories and in particular UG labs.
iv)   Research & Innovation including Translational Research and Technology Transfer.
v)   Students Welfare.

In addition the committee may also consider any other issue, activity/parameter in the interest of overall growth of IIT Ropar.

3. The Process :

The committee members held detailed reviews of various activities on 29th & 30th September 2014 at IIT Ropar. While the committee was free to use any format, the members reviewed the methodologies used by some of the other IITs for such purpose, such as IIT Kanpur, IIT Gandhinagar and a few other reports available. They arrived at a structure based on the institutional grid for assessment. The report will be presented in that format. Accordingly, they also decided on the type of issues, activities and parameters which need to be addressed during the review.

On 29th Sept. 2014 there was a detailed presentation by the Director regarding the various academic aspects, processes and outcomes from IIT Ropar. There was a good interactive discussion. During the presentation, the departmental heads and coordinators were also present to provide supplementary information/ data to the questions posed by the members of the review committee.

It was followed by detailed presentations by the department heads and coordinators. Well before coming for the review, detailed reports prepared by the department about their activities were already available with the members. In addition, the members had the advantage of external peer review done for each of the departments by eminent experts. The committee had studied these reports, and also used them as materials while interacting with the Heads of the departments/coordinators during their presentations.

Subsequently, the committee members visited the library, various laboratories and sports facilities, hostel and gymkhana. The structure of the report was evolved from the Institutional Grid for Assessment.

On the next day 30.09.2014 the committee members had separate meetings with faculty members, staff members and students. Director introduced the committee members and later withdraw from the discussions so that free discussions could follow. There were a number of inputs available from such interactions as well. These are also reflected in the report of the committee in the appropriate sections.

The reports starts with overview of the reports by the peer groups for the individual departments. The subsequent sections are the findings of this external review committee as per the structure.

II- MAJOR FEATURES OF IIT ROPAR (INPUTS FROM DIRECTOR)

Strengths and Weakness

High quality faculty, bright students, modern under graduate laboratories and excellent research infrastructure are the strengths of IIT Ropar. This has resulted in high impact research as evidenced by H-index of 18 and average citations of 3.71 during the last five year period. Placements of first two batches of B.Tech Students have been very good. Perhaps the only weakness of IIT Ropar is the absence of adequate number of senior faculty. Presence of senior faculty would help in mentoring young faculty in their research plans and also in sharing administrative responsibilities of the Director.

Collaboration

Inter-Departmental Research Collaboration amongst faculty members as well as with scientists outside IIT Ropar has been reasonably good and is growing with time. More than 15 faculty members have collaborated with other departments and organizations and published nearly 100 papers.

Sponsored Research Projects

More than 75% of faculty members have secured at least one sponsored R&D project within two years of joining IIT Ropar. Presently there are nearly 90 R&D projects with total grant of 18 crores which are being executed at IIT Ropar of these five projects are worth more than 75 lakhs each, eight projects are of value more than 30 lakhs (less than 75 lakhs each). In addition, Institute has received consultancy projects worth 50 lakhs.

Incentive for Principal Investigators (PI)

PI's are allowed to retain and use 20% of the overheads of their Govt. sponsored R&D projects for professional development expenses as incentive. Further, in consultancy projects, 70% of the consultancy fees can be retained by P.I.

Special help for weak students

Institute has taken pro-active role in providing all academic help to weak students by way of extra coaching and counseling.

Distinctiveness of IIT Ropar

At the early stages of its development of IIT Ropar with an aim to achieve excellence in Research, Teaching and Innovation, the following strategies were followed:-

1. Recruitment of adequate number of high quality faculty to teach and train UG students, and thereby avoid dependence on mentor IIT.
2. Ramped up research infrastructure quickly so that faculty can continue their research soon after joining IIT Ropar. This is done by providing generous seed grants to all the new and young faculty.
3. Admitted Ph.D students in good number so that Faculty can engage in their creative research activities in addition to their teaching.

   In addition, Institute embarked on emerging Inter-disciplinary areas to tackle 21st century grand challenges. These include Bio-medical Engineering, Bio-energy and Cognitive Sciences with a view to bring synergy between Science/Technology and Medicine. Collaboration was forged between IIT Ropar and PGIMER Chandigarh. Nearly 20 IIT faculty members in various disciplines of Science and Technology are now working with Doctors of PGIMER, Chandigarh.

This has already resulted in several R&D projects related to affordable healthcare and also in joint Research Publications. In this respect, IIT Ropar appears to be unique. IIT Ropar has also taken initiative in addressing regional issues that require R&D inputs. Recognizing the detrimental affect of open burning of agricultural residue, IIT Ropar has developed Technology to convert agricultural waste into energy. This is being demonstrated on pilot scale.

Average time taken for completion of Ph.D

Presently one student has been awarded Ph.D degree in Engineering; six more are expected to be awarded this year. Average time taken for completion of Ph.D degree is slightly less than four years.

S.No.	Name of the department	No. of faculty	No. of publications in (SCOPUS indexed journals) 2014	Information on collaborative Sponsored projects			Teaching load	Sponsored research (2010-2014)	
				No. of Projects	No. of projects		L-T-P	Institute funding ISIRD (in-lacs)	External funding (in lacs)
					Interdepart-mental	Inter-institutional			
1	SMMEE	18	30	12	1	7	43-06-40	75.56	353.54
2	EE	09	07	10	3	1	32-5-0	202.36	277.53
3	CSE	07	03	03	0	0	27-2-20	27	52.62
4	Physics	9	13	11	1	1	39-2-4	309.6	177
5	Chemistry	10	62	20	1	2	32-10-12	174.8	553
6	HSS	07	04	03	0	0	28-5-0	68.33	50
7	Mathematics	10	23	07	0	3	27-7-4	69.1	138.295

III AN OVERVIEW OF REPORTS OF EXTERNAL EXPERT COMMITTEES FOR DIFFERENT DEPARTMENTS

The individual departments were reviewed by two experts each during Jan-Feb 2014. A summary of their observations and recommendations are provided here:

1. DEPARTMENT OF CHEMISTRY:

Experts: (i) Prof. A.S. Brar
Vice Chancellor
GNDU Amritsar

(ii) Prof. N. Sathyamurthy
Director
IISER Mohali

I. MAJOR OBSERVATIONS:

- The department is working in diverse research areas with particular focus on energy, sensors, and catalysis, which are highly relevant to local needs and hold immense potential at national & international levels. In addition, the department has initiated research work in health care area. The department is executing many research projects in interdisciplinary areas. The department is offering courses relevant to its thrust in healthcare areal. Such courses are Chemistry of Life – An Introduction and Environmental Science & Engineering.

- The Institute offers seed money to newly recruited faculty through ISIRD grant to establish research laboratories and initiate research. The faculty of the department is encouraged to write projects. The department has already raised approximately Rs. 4.00 crores through external funding.

- The department is equipped with sophisticated instruments, which are maintained as per the standard operating procedures. The cell culture and laboratory for synthetic chemistry has been added recently.

- The internal review report presented by the coordinator presents the list of publications and sponsored research projects and it indicate a good progress during the last five years.

- The faculty of the department contributes towards the cause of contribution towards improving quality of technical education in other engineering institutes by participating in the activities of other institutions / universities of the region.

II. MAJOR RECOMMENDATIONS:

- The committee recommended that the department should initiate a course on electronic materials, with emphasis on material characterization. The members also suggested that the contents of the syllabus should be available in standard books. It was further suggested that the department should consider splitting the core course CYL101 into two branch-specific core courses.

- The committee members were of the view that the department should launch a Masters program in chemistry, with minimum intake of 30 students. The department should first start a M.Sc. / M.S. program and later a M.Tech. program.

- Faculty members should be encouraged to do collaborative work within the department, institute and other institutes/institute.

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2. DEPARTMENT OF ELECTRICAL ENGINEERING

Experts: (i) Prof. S. S. Murthy
Vice Chancellor, University of Karnataka
Gulbama, Karnataka

(ii) Prof. Bhim Singh
Professor of Electrical Engineering
Indian Institute of Technology Delhi
New Delhi

I. MAJOR OBSERVATIONS:

- Overall, the review committee was impressed by the activities and the performance of the department despite several constraints and handicaps resulting from transit campus and initial stage of growth of IIT Ropar.

- Department is dealing with all major areas of electrical, electronics and communication engineering. While the department is keen to start masters program it is constrained due to lack of faculty, student accommodation and space.

- It is also recognized that IIT Ropar provides encouragement to faculty to pursue research through seed money and other facilities.

- All the faculty members of the department are very active in research despite their other teaching and administrative responsibilities.

- There are a few externally funded research projects. A few new research laboratories on high voltage, power systems, embedded systems, thermal imagining, dielectrics are setup by the faculty which is commendable.

- Faculty members are contributing to lecture under TEQIP for other institutes. Besides this the department faculty have undertaken several academic activities to help institutions in the region (NITs, CSAC, Kurukshetra University, Guru Nanak Dev Engineering College, Ludhiana, etc.

- In summary, the committee is satisfied with the performance of the department as regards teaching, laboratory development and research considering the constraints of infancy and temporary campus.

II. MAJOR RECOMMENDATIONS:

- Department can effectively use NKN facilities to network with sister institutions and industries in the region to augment teaching and research.

- While the department is interacting with the local entities in a limited way, there is a considerable scope to network with larger organizations of Punjab, Haryana and Chandigarh such as Punjab Electricity Board, Semiconductor Complex, Limited CSIO and DRDO, etc. Some of the local industries can be utilized for student projects and summer research projects. There are opportunities for networking among local institutions such as Punjab Engineering College, Chandigarh, Thaper University, Patiala and NITs at Jalandhar, Hamirpur and Kurukshetra. NKN facility can be used to synergize and enlarge the academic potential.

- Faculty recruitment, retention and development is a crucial area needing immediate attention for the department.

- Administrative structure must be streamlined similar to well established IITs.

- Faculty time spent on non academic matters need to be reduced.

- Automation, such as MIS, learning management system, ERP and student feedback system in the functioning of IIT Ropar must be accelerated.

- Faculty teaching awards may be instituted.

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3. DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

Experts: (i) Prof. G. Neelakantan
Professor of HSS
IIT Kanpur

(ii) Prof. Surajit Sinha
Professor of HSS
IIT Kanpur

I. MAJOR RECOMMENDATIONS:

- A clear vision statement for achieving academic excellence and societal relevance needs to be put in place.

- In identifying thrust areas and recruiting faculty, be mindful of the diverse HSS offerings required for the Undergraduate Programme as well as the Department's own commitment to outstanding scholarship and research excellence.

- The Department needs to be proactive in recruiting quality doctoral candidates, providing them with a nurturing research environment and training them for productive careers in academics and related social organizations.

- While the research output of the Department is fairly impressive, the faculty needs to be encouraged to publish in major international journals.

- Since most faculty members are young, it may be a good idea to give them the benefit of mentorship, either with renowned faculty in the country or overseas.

- Workshops in Research Methodology and Academic Writing can also be arranged atleast once a year for the benefit of young faculty and Ph.D scholars.

- Faculty should be encouraged to bring in sponsored projects, wherever possible. The few projects available in the Department are noteworthy.

- There is serious need to augment the existing library resources. Besides books and journals, electronic journals archives and databases such as CMIE are necessary.

- Parity in Ph.D scholarship with the Physical Sciences must be maintained, as is done in other IITs and UGC.

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4. DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING:

Experts: (i) Prof. N. Viswanadham
             INSA Senior Scientist
             Department of CSA
             IISc Bangalore

         (ii) Prof. Sandeep Sen
              Professor
              Department of Computer Science & Engineering
              IIT Delhi

I. MAJOR OBSERVATIONS:

- The faculty is engaged in conducting a high quality intensive CS undergraduate program, carrying out edge research in diverse areas of Computer Science and Engineering, mentoring Ph.D. students, as well as establishing linkages with industry and participating in IT initiatives in the local context.

- The department is running a four year B.Tech. programme with a state-of-the-art curriculum (closely abiding by the ACM recommendations) having a good mix of theoretical and hands-on education. The graduating students have been recruited by the leading Computer Science/IT industries as well as some Multinationals.

- The Committee was happy to note that the department has made arrangements to provide special help for the weaker students.

- The department is currently maintaining multiple teaching labs for undergraduates and Ph.D. students.

- Despite a small size faculty, they are extremely dynamic in pursuing research in diverse areas including Multi-processor Scheduling, Geometric Algorithms, Neuroimaging, Cloud Computing, Data Mining, Big Data, Knowledge Discovery, Social Networks, Software architecture, and Cyber physical systems. All the faculty have Ph.D. students who are making good progress.

- The faculty retention has also been very good (unlike some of the other new IITs) and only one person had left after joining.

II. MAJOR RECOMMENDATIONS:

- For future expansion of IT support like Cloud and High Performance Computing, the Department (and more generally the Institute) should explore involving a professional IT Company (like TCS, Wipro) so as not to further distract the already over-burdened faculty.

- Reach out to IIT Delhi Computer Services Center, that has been able to build some impressive in-house IT infrastructure in recent years.

- Start planning an ERP system to simplify and lessen administrative burden.

- Introduce part-time Ph.D. external registration program in view of local industry in Chandigarh.

- Allow joint research guidance for students enrolled in other institutions.

- Encourage faculty to engage in inter-institution research projects with a large component to support travel.

- Approach some of the leading IT-CS companies to set (using MoU) to set up endowments supporting this. Further the same companies may be encouraged to support International travel of faculty and Ph.D. students.

- IIT Ropar must explore alternate models of faculty induction who may not necessarily stay in the institute on a permanent basis but nevertheless play an important role in institution development. May be pursued.

- Identify strong and talented teachers in neighbourhood institutions like PEC, who are willing to teach courses. This alleviates some teaching burden from an undersized faculty and lets them focus more on research.

- Contract retired and experienced faculty from other IITs/IISc who are willing to spend time here as Visiting Faculty / Adjunct Faculty or under inter-IIT faculty exchange programme.

- Institute Chair Professorship for attracting eminent researchers who can come as long term Visiting Faculty on sabbatical from their parent institutions.

- Facilitating faculty exchange programme between IITs/IISc.

- Faculty members of the department can engage with local industry and government agencies for identifying opportunities for consulting / project collaboration, for example in the areas of agriculture.

- The review committee encourages the faculty and staff members to plan for an IIT Ropar Housing Society.

- We feel that the IIT Ropar administration could meet the faculty using open house sessions to address the common concern.

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5. DEPARTMENT OF MATHEMATICS

Experts: (i) Prof. I.B.S.Passi
IISER Mohali, Punjab

(ii) Prof. B.S. Panda
IIT Delhi

I. MAJOR OBSERVATIONS:

- The department of Mathematics apart from establishing a robust teaching environment also runs a well designed PhD programme. The academic programme leading to the PhD degree is broad based and involves a minimum course credit requirement, comprehensive examination, synopsis seminar and thesis submission.

- A PG laboratory for the 20 Ph.D students is under construction. Expected date of completion is May 2014.

- For all courses, both UG and PG level offered by the department, feedback from the students is taken twice during each semester.

- From the list of publications and the other research activities undertaken by the department, it comes out that the faculty and research scholars have been actively involved in research, regularly publishing articles in journals of repute and participating in national and international conferences held in India and abroad.

- The performance of the department regarding its teaching and research output compares favorably with that of the departments of the institutes with similar standing.

- From the discussion with the faculty it emerged that the department has the following plans for the future:

    i. To start a four year B.Tech. programme in Mathematics and Computing.

    ii. To start a two year Master programme in Mathematics.

    iii. To offer new courses for UG and PG with a view to train students handling cutting edge technology used in industry.

    iv. To organize quality improvement programmes for faculty members from various engineering colleges.

    v. To have more interdisciplinary research within and outside the institute.

II. <u>MAJOR RECOMMENDATION</u>:

- The committee is strongly of the view that the institute should take urgent steps to start a two year Master programme in Mathematics and a four year B.Tech. programme in Mathematics and Computing. This will naturally require augmenting the faculty strength and necessary computational lab with high performance workstations and various computational softwares.

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6. SCHOOL OF MECHANICAL, MATERIALS AND ENERGY ENGINEERING (SMMEE)

Experts: (i) Prof. M. L. Munjal
IISc Bangalore

(ii) Dr. R. R. Sonde
Executive Vice president
Thermax India Pvt. Ltd.

I. <u>MAJOR OBSERVATIONS</u>:

- Energy and health and more particularly solar-bio-energy and bio-medical programme are initiated as research initiatives which are immediately relevant to the local needs while they hold immense potential at national & global scale.

- The research in concentrated solar thermal technologies (CSP) and energy extraction from the biomass based agro residue programme launched under various subtitles is being carried out as interdisciplinary academic programme and research projects.

- The corresponding courses offered under energy & health are Biomechanics, Medical devices and equipment, introduction to bio medical engineering, Clean and sustainable energy engineering. Energy science and technology.

- Eighteen faculty in five years (only one has moved on to IITM) with diverse expertise and skill sets shows a very good recruitment strategy.

- The faculty is young, passionate and appeared committed to the cause of setting up the infrastructure in their respective laboratories while also taking up0 research projects.

- The institute offers seed money (ISIRD grant) even beyond the set limit of 5 lac to each young faculty and this provides a very good platform for the young faculties joining the institute.

- The UG laboratories are put in place and necessary infrastructure for manning the laboratories, their maintenance and O&M of the instruments are maintained as per the standard operating procedures.

- Forty five papers over 15 faculties (three joined only one month ago) indicating three per faculty is a good measure of research output.

- The student to teacher ratio in SMMEE is about 9 which is a reasonable number and young teachers appear fully committed to mentor the students.

- Students carry out internship in a number of industries and the bonding between industry and IIT Ropar is shaping up.

- In summary, the Department of Mechanical, Materials and Energy Engineering of the IIT Ropar has made substantial progress despite odds of infancy and temporary location of the campus.

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7. **DEPARTMENT OF PHYSICS**

Experts: (i) Prof. S.V. Bhat
Professor of Physics
IISc. Bangalore

(ii) Prof. Anurag Shárma
Dean Academic
IIT Delhi

I. MAJOR OBSERVATIONS:

- The department has a number of state-of-art research facilities, such as : Variable Temperature Ultrasonicator, High Temperature Vaccum Furnace, Scanning Probe Microscope, Electrostatic deposition setup for Graphene synthesis, Optical Miscroscope and wet chemical etching facility for isotropic and anisotropic surface nanostructuring, thus catering to the needs of various ongoing research activities in the department.

- Since its establishment, the department has contributed significantly towards teaching and research & development.

- The department is proposing to set up the following facilities for their own research as well as for use by researchers in the Institute or in other institutions:

  i. e-beam lithography
  ii. Spectrophotemeter

- In order to enhance the department's contribution in both research and teaching, the department has identified future thrust areas of research and initiated activities to set up research laboratories at the transit campus.

- The department aims to start a B.Tech. in Engineering Physics, an integrated BS-MS program in near future, and an M.Sc.-MS-PhD program as its first priority.

- In summary, inspite of being a new Department, initially heavily involved in setting up labs and programmes, has done quite well in establishing research culture at the department.

- The department has very exciting proposals for new teaching programmes, which is very welcome.

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IV. INSTITUTIONAL GRID FOR ASSESSMENT

The Institutional Grid for Assessment evaluates the infrastructure /resources, and processes and analyses the outcomes.

I.   Infrastructure Resources—Academics and Pedagogy, R&D

The infrastructure/resources are evaluated based on Academics and Pedagogy and R&D activities. Based on the various parameters collected, the infrastructure/resources are good, considering the Institution to be of 5 years old. There are adequate number of classrooms for instruction. All the 10 class rooms are equipped with LCD projectors, for a student strength of 471. The student-faculty ratio is 8:42:1. The average size of a group in a project/lab work is 3. The number of students/Technical Assistant is 15. In the library, there about 10,000 books, 5000 e-books, 20 Magazines and 7057 Journals. There is one students' workshop to pursue their own ideas.

Regarding the infrastructure for Research and Development, one computer is provided for each PhD scholar. The library housing the above Journals and books is meant for PhD students as well. A total amount of Rs.9.85 crore has been granted as seed money for young faculty members. It is suggested that the Institute makes provision to recruit Post-Doc scholars. There are 3 Post-Docs from other agencies working at the Institute. It is desirable to have international Ph.D scholars and Post-Docs in the Institute.

II.   Processes--Academics, Pedagogy and R&D

Based on an assessment of processes for Academic& Pedagogy and R&D, it is noted that the number of theory credit /courses per semester is 180/53, the average number of lab courses/credits per semester is 12/40, the average no. of minor/major projects per semester is 39, average no. of assessments/semester is 200, average number of HSS courses is 9, periodicity of curriculum review is 4 years. There is provision for on-line course evaluation every semester; there is a typical delay of 10 days between the conduct of examination and announcement of results.

Regarding research work, a minimum of 3 courses are mandated; and an average 2 conferences are attended by a research student. On an average, the guide spends about 20 hours/per week per Ph.D student.

III.   Outcomes-Academic & Pedagogy and R&D

A.   Academics & Pedagogy

Industry perception of students' employability/performance is satisfactory as seen from the feedback after internship and interviews for placement. Some industries prescribe improvement in basics. M.Tech. programmes are yet to start due to space constraints. For the first batch of students passing out, 14 MNC's, 1 PSU and 8 private companies visited the campus. The ratio of the number of students

placed through campus to the total number of students was about 52.8%, with an average salary of Rs. 12.8 lacs p.a.

On the whole, this is satisfactory performance for the first batch in a situation of difficult industrial/economic growth during the year. Institute may explore various methods to increase its engagement with potential employers. A few suggestions were given to the faculty and the Director.

B.   Research and Development

The range of research activities is very good in volume and breadth with good citation index, in the overall for the institution. Publications per faculty and Ph.D students are not uniform for all departments, some being excellent, and in the overall satisfactory for all. Some mechanism for further incentivizing better performers will be useful.

Only two Ph.D's have been completed; one has gone abroad. Almost all of those pursuing Ph.D programme indicated during the interactions that they would like to take up teaching as a profession. They need to be nurtured and mentored, if necessary, to encourage them to take up academics.

The technology developments presented are at initial stages. Three patents have been awarded and 10 have been filed. From the research publications and presentations it appears there is a potential for further patenting. The Institute may give special attention to these.

Inspite of the severe space constraints due to the present location in a temporary campus, time taken to set up a laboratory by faculty is very fast, as can be seen by the operation of the equipment in the laboratories. Retention is quite high as so far 13 have left, one to become a vice chancellor.

In the overall, the demonstrated performance in R&D is commendable.

IV.   Infrastructure/Resources-Governance & Management

The infrastructure and resources available for governance and Management are quite good. There is no shortage of staff in various areas and there is adequate workspace available for staff members. Every administrative staff member is equipped with a computer with internet access. A range of services such as online support portal, and two virtual class rooms with a capacity of 120 each are supported. A system is in place for RTI requests. Though there is no commercial ERP software, inhouse software is operational for computerization of various administrative jobs. The administrative /technical staff student ratio is 1:7.

V.   Processes –Governance & Management

Regarding processes for governance and management, 8 processes, non-core processes have been outsourced. Many processes have been automated The procurement norms are as per IIT Delhi/GOI norms. Seven Finance Committee (FC) of 13 BOG meetings have

been conducted, average attendance is 92% in FC & 77% in BOG. The number of RTIs addressed is 151 at PIO level, 12 at Appellate level, 13 at CIC level.

VI. Outcomes-Governance & Management

The outcomes for governance and management have been arrived at based on the following parameters. Eight non-core activities have been outsourced and six processes have been automated using the inhouse software. On an average 100-120 hits are noticed on the Institute website and it is suggested that a provision be made to provide suitable feedback on the website. On an average the time spent to provide information under RTI is 20 days.

VII. Infrastructure/Resources—Internal Stakeholders

Based on the processes relevant to internal stakeholders (faculty, non-faculty, students, and families), the engagement outside the field of administration and academics has been satisfactory. Three sports and cultural events have been conducted. There have been 50 interactions among the warden and students during the past one year.

However, it is suggested that personality development workshops and lectures by eminent people on issues related to general understanding of public life, career management etc. be organized. This was also evident during the feedback with the UG students and faculty members.

VIII. Processes—Internal Stakeholders

Sufficient infrastructure for the Internal Stakeholders (faculty, non-faculty, students etc.) is available within the constraints of transit campus.

IX. Outcomes—Internal Stakeholders (Faculty, Non-faculty, Students, Families)

X. Infrastructure/Resources-External Stakeholders (Industry, Alumni, Community, Government/Parliament)

XI. Processes-External Stakeholders

XII. Outcomes-External Stakeholders

Outcomes internal stakeholders (faculty, non-faculty, students, families) as well as engagement with external stakeholders (industry, alumni, community, Govt. parliament) in terms of infrastructure/resources, processes and outcomes, were not assessed as these are at the fledgling stages. However, it is noticed that the Punjab Government is fully supporting the institution to tide over a number of problems due to the slow progress of the construction of new campus. The institution having competed 5 years may begin putting in place mechanisms for the above, as they move to the new campus.

V. DISCUSSIONS WITH FACULTY, STUDENTS AND STAFF:

I. FACULTY:

- The location of Ropar offers both locational advantages (in terms of proximity to Chandigarh) and disadvantages (in terms of being located in a semi-urban area).
- There are space constraints in the current location; this should be removed when the campus shifts to the new location.
- The institute is highly research-focused, causing less attention to be given to teaching and student activities.
- The decision making is too centralized.
- There is lack of senior faculty members such as Professors, Associate Professors.
- The institute provides generous seed money for the new and young faculty members to enable them to write research proposals for submission to sponsoring agencies.
- Some of the faculty members complain of too much administrative work.
- The freshman students should be given personality development inputs so that they may fare better in placement interviews.
- The faculty feel that the students do not devote enough attention to fundamental concepts.
- The curriculum which was proposed by IIT Delhi and which is being followed now requires a major overhaul. The number of credits also needs to be reduced.
- It is difficult to get funds for some minor items of expenditure, although high value equipment for research is more easily sanctioned.

II. STUDENTS:

- The release of funds from UGC for research fellowships takes a lot of time.
- The UG students believe that there is inadequate faculty-student interaction.
- Only 50% of the faculty members upload their course materials.
- There is severe space deficit in the hostels.
- The number of electives are too small, with the result the electives offers become compulsory courses.
- There are delays in getting administrative approvals.
- There should be representation for the students in the Senate.
- The grading process lacks transparency.

III. STAFF:

- The staff seemed to be quite happy to work at IIT Ropar, but are discouraged by the lack of opportunities for promotion.

VI SUMMARY ASSESSMENT:

- In a short period since inception, under the pro-active and dynamic leadership of the Director, IIT Ropar has achieved commendable progress in creating a culture of research in the Institute. Very good infrastructure has been established even in the temporary campus and young faculty members with excellent credentials have been recruited. The faculty members are very enthusiastic and participate in institutional development.

- Several faculty members have an impressive record of publications in reputed journals, and are involved in sponsored projects.

- The paucity of senior faculty has resulted in absence of mentoring of the young faculty and inability to fill senior administrative positions, such as Deans. Almost all the responsibility falls on the shoulders of the Director.

- The space constraints currently being faced by the Institute should be removed on moving to the new campus next year.

- A Strategic Plan should be developed urgently, in order to provide the road map and strategies for achieving the desired outcomes.

- The assertive leadership style of the Director and the lack of decentralization of powers because of absence of senior faculty may lead to lack of motivation and loss of morale among the young faculty and students.

- The bright young faculty should be encouraged to compete for Academy and Professional Society Fellowships.

- All in all, there are many positive factors which are projecting IIT Ropar as an institution with a strong potential for achieving Excellence in the near future.

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