Part II – The Evaluative Report

A – Executive Summary

The Institute

The International Institute of Information Technology, Hyderabad (IIIT-H) is an autonomous university founded in 1998. It was set up under a not-for-profit public private partnership (N-PPP) and is the first IIIT to be set up under this model in India. Government of Andhra Pradesh helped set it up and supported it through the grant of land and buildings. The governance of the institution is entrusted to a Governing Council consisting of representatives of government and eminent people from academia, industry, and other stake holders.

The Mission of IIIT-H is to contribute to the transformation of industry and society, in India and the world over, by delivering world class research and education, and promoting innovation and human values.

Academics

The institute has thriving academic programmes at the undergraduate and postgraduate levels which combines course work with research and development. Students get involved with technology development, some of which has gone out into the industry. The institute has four-year B. Tech. and 5-year dual degree programme in Computer Science and Engineering (CSE) and Electronics & Communication Engineering (ECE), Computational Natural Sciences (CNS) and Computational Linguistics (CL). A new trans-disciplinary dual degree programmes has been added from the academic year 2010-11: Exact Humanities. The institute also has a large number of postgraduate programmes in IT and its applications to various related fields as listed below:

<table>
<thead>
<tr>
<th>Programme Areas</th>
<th>Post-graduate Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science and Engineering</td>
<td>M. Tech., MS., Ph.D.</td>
</tr>
<tr>
<td>Electronics and Communication Engineering</td>
<td>MS, PhD</td>
</tr>
<tr>
<td>Computer Science and Information Security</td>
<td>M. Tech.</td>
</tr>
<tr>
<td>Computer Aided Structural Engineering</td>
<td>M. Tech., MS., Ph.D.</td>
</tr>
<tr>
<td>Computational Natural Sciences</td>
<td>M.Tech, MS., Ph.D, MSc</td>
</tr>
<tr>
<td>&amp; Bioinformatics</td>
<td></td>
</tr>
<tr>
<td>Computational Linguistics</td>
<td></td>
</tr>
<tr>
<td>- Language Stream</td>
<td>PG Diploma, MPhil, Ph.D</td>
</tr>
<tr>
<td>- Computer Science Stream</td>
<td>M. Tech., M. S., Ph.D.</td>
</tr>
<tr>
<td>IT for Power Systems</td>
<td>M. S., Ph.D.</td>
</tr>
<tr>
<td>Exact Humanities</td>
<td>PhD</td>
</tr>
<tr>
<td>Cognitive Science</td>
<td>PhD</td>
</tr>
<tr>
<td>Spatial Informatics</td>
<td>PhD</td>
</tr>
<tr>
<td>Post B.Sc Dual Degree</td>
<td>B.Tech in CSE and MS</td>
</tr>
<tr>
<td>Applied Agriculture and Information Technology</td>
<td>PGDAAIT</td>
</tr>
</tbody>
</table>

The institute not only imparts broad and interdisciplinary IT Education of high academic quality, but also aspires to turn out people of whom society will be proud of. The overall nurturing of each student is achieved through an integrated curriculum that consists of
wide-ranging IT courses, relevant research projects, interaction with the industry, and preparation in entrepreneurship, courses in languages and humanities and social sciences, as well as a strong programme in human values. The Institute is being regularly rated among the top 10 technology schools in the country by the annual survey in magazines such as Outlook, India Today.

Research

Research Centres and Labs below are listed area-wise and grouped based on their focus on technology domains. At times, technology centres foray into domains, and domain centres into technology. Development centres use technology in innovative ways or in unusual domains.

Technology

Communications (CRC)
Data Engineering (CDE)
Language Technologies (LTRC)
  - Natural Language Processing & Machine Translation (NLP-MT)
  - Search and Information Extraction (SIEL)
  - Speech
  - Anusaaraka
Robotics (RRC)
Security, Theory and Algorithms (C-STAR)
Software Engineering (SERL)
Visual Information Technology (CVIT)
VLSI and Embedded System (C-VEST)
Compilers (CL)

Domains

Agriculture and Rural Development (ARD)
Building Science (CBS)
Cognitive Science (CS)
Computational Linguistics (see under LTRC)
Computational Natural Sciences and Bioinformatics (CCNSB)
Earthquake Engineering (EERC)
Education (cITe)
Education Technology and Learning Sciences (CETLS)
Exact Humanities (CEH)
Power Systems (PSRC)
Spatial Informatics (LSI)

Development Centres

Engineering Technology and Innovation Centre (ENTICE)
Center for Innovation and Entrepreneurship (CIE)
Center for Open Software (COS)
Societal and Human Applications of Artificial Intelligence (SAHAAI)

The centers have teams of researchers consisting of faculty, undergraduate, postgraduate, PhD students and research scientists/post doctoral fellows working on cutting
edge research. Many centres have developed systems and technologies and transferred them to industry and society. IIIT-H also helps students in incubating companies based on innovative technologies that are developed in the centers. Besides industrial projects, a number of societal projects are at various stages of development. Theoretical and practical research at the institute has been recognized by the community of peers and various national and international agencies and industries. Several research papers are regularly contributed to international journals and conferences. Research centers have received funding from several national agencies such as Ministry of Communications and IT, Department of Science & Technology, MHRD, Ministry of Earth Science, Naval Research Board, Central Institute of Indian Languages, National Agricultural Improvement, Department of Atomic Energy, Rashtriya Sanskrit Samsthan, AICTE, UK India Education and Research Initiative. Research collaborations are ongoing with leading companies such as GE Global Research, Dr. Reddy’s Laboratories, TCS, Intel, Yahoo, Amazon, Infosys, Honeywell, NVIDIA, Rockwell Collins, IBM. There are also active collaborations with Carnegie Mellon Univ., Univ of Penn, University of Colorado, Stanford Research Institute International etc.

### Joint Research Projects

<table>
<thead>
<tr>
<th>Research Area</th>
<th>Collaboration with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biophysical Chemistry</td>
<td>Prof. Jiří Šponer, Institute of Biophysics, Academy of Sciences of the Czech Republic</td>
</tr>
<tr>
<td>Theoretical chemistry and chemical physics</td>
<td>Prof Gabriel G Balint-Kurti, School of Chemistry, University of Bristol</td>
</tr>
<tr>
<td>Quantum chemical computations of non-covalent interactions in RNA</td>
<td>Dr. Jiří Šponer, Institute of Biophysics, Academy of Sciences of the Czech Republic</td>
</tr>
<tr>
<td>Speech Processing</td>
<td>Prof. Herve Boulard, IDIAP Research Institute, Switzerland</td>
</tr>
<tr>
<td>Speech analysis and synthesis</td>
<td>Dr. Simon King and Prof. Steve Renals, CSTR, University of Edinburgh, UK</td>
</tr>
<tr>
<td>Computer Vision</td>
<td>Prof. Narendra Ahuja, ECE University of Illinois Urbana-Champaign</td>
</tr>
<tr>
<td>Image &amp; Video retrieval</td>
<td>Prof. Andrew Zisserman Dept. of Engg. Science, University of Oxford</td>
</tr>
<tr>
<td>Treebank for Hindi/Urdu</td>
<td>Prof Martha Palmer, Dept of Linguistics, University of Colorado at Boulder</td>
</tr>
<tr>
<td>Machine Translation Parsing and Discourse Processing</td>
<td>Prof Aravind K Joshi - Computer &amp; Information Science, University of Pennsylvania, USA</td>
</tr>
<tr>
<td>Modeling user behavior in web navigation</td>
<td>Prof. Herre Van Oostendorp, Utrecht University, Utrecht, The Netherlands</td>
</tr>
<tr>
<td>Visual Metaphors</td>
<td>Prof. Arnaud de La Fortelle, Ecole des Mines, Paris, France</td>
</tr>
<tr>
<td>Robotics</td>
<td>Prof. Shuji Hashimoto, Waseda University, Tokyo, Japan</td>
</tr>
<tr>
<td>Modeling Creativity</td>
<td>Prof. Armand Hatchuel, Ecole des Mines, Paris, France</td>
</tr>
<tr>
<td>Music and Cognition</td>
<td>Prof. Jean-Christophe Buisson, ENSEEIHT-IRIT, Toulouse, France</td>
</tr>
</tbody>
</table>
Research at IIIT-H has resulted in several key achievements and many core technologies which are being perfected for use in several applications:

a) IIIT-H team “Mission Gaganyaan” won the first place at CANSAT-2010 competition held at Amarillo, Texas., USA.

b) Sampark, the Indian Language machine translation system developed by a IIIT-H led consortium of 11 Indian institutions is slated for national launch at the end of August 2010.

c) IIIT-H’s research students won the top two ranks at the Association of Computational Linguistics (ACL) organized Word Sense Disambiguation (WSD) in the unsupervised category at the International contest SemEval 2010.

d) Also figured among the top 3 winners, in three major online programming contest.

e) IIIT-H’s research students five technical papers were accepted at the North American Association of Computational Linguistics (NAACL) 2010’s Student Research Workshop.

f) SETU Software Systems, a IIIT-H incubated firm was adjudged the Best Product Startup at the 18th Annual Software Products Showcase, Awards and Conference 2009 (March 2010), Hyderabad.

g) IIIT-H student team represented India and participated in the 34th Annual ACM ICPC World Finals, Harbin, China in Feb 2010.

h) Prof. Rajeev Sangal, Director, IIIT-H figures among the 50 most illustrious alumni of IIT-Kanpur, announced on the eve of the institute’s 50th anniversary celebrations in 2010 by the Alumni Association.

i) Prof. Rajeev Sangal, Director, IIIT-H and Head of Language Technologies Research Center (LTRC), has, in recognition of his contribution to engineering research in India – particularly his pioneering work in machine translation and language technologies – been named a Fellow of the Indian National Academy of Engineering (INAЕ), (October 2009).

Outreach Education

A separate outreach division was established in July 2004 with the objective of further strengthening executive education, interface with industry, statutory bodies, professional societies and conduct of research focus workshops, seminars and conferences. The mission of outreach division is to assist in further strengthening initiatives in the area of IT education, research and spreading awareness of information technology for industry and society.

The Outreach Education Division of the institute has taken a number of education initiatives. Some of the programs are the following:

1. Through the Consortium of Institutions of Higher Learning (CIHL) setup by AP Govt., IIIT-H participates in MSIT program in which digital course-ware is used along with specially trained mentors to impart professional IT education. Student who might have
missed on opportunities earlier, go through the program preparing them for industry. It uses learning by doing methodology with self paced learning enabled through digital course-ware. However, this is not a distance education program as the students have labs and mentors and spend full time in labs.

2. IIIT-H provides support to Rajiv Gandhi University of Knowledge Technologies (RGUKT), an ambitious initiative of AP Govt. This has been setup for the rural students with an intake of 3000 students per year after class 10 for a 6-year program. IIIT-H has prepared the curriculum, prepares digital course-ware, and trains 300-400 teachers every year.

3. IIIT-H is also involved in training teachers of engineering colleges through a Ministry of Communications & Information Technology project. 100 teachers from 24 engineering college are undergoing 4-month training. They will carry digital course-ware with them and use the material in their colleges.

4. The Institute organizes a workshop called ‘Excitement of Research’ every year and invites top ranking students of various engineering colleges to participate in it. Typically about 150 students participate in the workshop every year from about 40 colleges all over India.

5. The Institute conducts an event called ‘R&D Showcase’ every year to exhibit research and development activity at the institute. This event attracts people from both industry and academic including students.

6. The Institute runs an annual workshop on robotics called "Robocamp" to introduce basic robot building techniques, sense & control, microcontroller programming, wireless robo control and autonomous navigation to the participating Engineering students.

IIIT-H has been a host, as well as organizer of major international conferences like 20th International Joint Conference on Artificial Intelligence (IJCAI-07), 3rd International Joint Conference on Natural Language Processing (IJCNLP-08), 1st International Conference on Software Engineering (ISEC-08), 10th International Conference on Distributed Computing and Networking (ICDCN-09), 22nd IEEE-CS Conference on Software Engineering and Education Training (CSEET-09), 14th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD-2010), International Conference on Natural Language Processing (ICON) and Role of Apex Institutions in Higher Education (Sept. 2009). Forthcoming conferences: WWW (W3C) in March/April, 2011 will be held at IIIT-H, as the organizer. Many of these are international conference series that have come to India for the first time. IIIT-H has played a major role in winning bids to get these conferences to India.

Special Distinguished Lectures as part of IIIT-H 10th Anniversary series were conducted during 2008-10 with eminent International and National speakers like Prof UR Rao and Dr Kasturi Rangan (ISRO), Dr Prabhakar Raghavan (Yahoo), Dr APJ Abdul Kalam (HE former President of India).

People

The institute is proud to have eminent people associated with it. Dr. A. P. J. Abdul Kalam, the former president of India, is a Distinguished Faculty member. The Governing Council is chaired by Prof. Raj Reddy, the Mozah Bint Nasser University Professor of
Student Life

Education is not only about academics, it is about creating empowered citizens who can think independently with responsibility. For the past few years we have been addressing this goal by utilizing both curricular as well as extracurricular space. In the curricular space, we have designed humanities courses and humanities projects. Through these, our faculty has been making conscious efforts at drawing student attention towards human values and of participation in relationship building within one’s own family and community, and in the society at large.

The student parliament, formed through a micro-democratic process within the student body, deals with extracurricular space.

In sports, the involvement of students has been on the upswing. Our football team won the ‘7’ a side Foot Ball tournament at Muffkham Jha Institute, Hyderabad and the Runner Up trophy in the first A.P.Inter Engineering College Foot Ball Tournament organized by IIIT,Hyderabad. In table tennis, our girls team won the runner up trophy in the ICFAI UNIVERSITY Tournament, and our boys team won the Second runner up trophy in VNR VJIE T Tournament.

The Cultural Council, along with its different groups, has been active round the year providing the students with ample opportunities to practice and upgrade their performing skills and showcase their talents. The Music Group held vocal, violin and guitar classes throughout the year. Our students composed their original theme music for Felicity. Fine arts club organized visits to museums and art competitions amongst students. Dance Club held dance workshop for students for improving their skills.

Our students and faculty have played active role in providing education and health to under privileged section of society in the nearby areas through Ashakiran. A major drive on collection of used clothes has been carried out by Suraksha, successfully. As part of technical outreach, the Institute has student branches like IEEE and CSI. Annual workshops like Excitement of Research (ExOR), R&D Showcase and Robo Camp were conducted regularly for the benefit of engineering students in the region.

Students Placement

The research culture of the institute is attracting the attention of industry. Our students have also been selected for International fellowships & scholarships to pursue higher studies in various universities. We are now recognized among the top institutions engaged in research in the IT-related area. While 145 companies registered for placement, 85 of them were given slots. Our students have landed job offers from companies like Microsoft, Amazon, Google, Yahoo!, Rediff, Adobe, Computer Associates (CA), Capital IQ, Nvidia, and Infosys SETlabs. IIIT-H has registered the highest average annual compensation in India for B Tech (CSE).
Major New Initiatives

IIIT-H has consistently been ranked among the top 10 technology schools in the country by a number of national surveys conducted by leading magazines such as Dataquest, Outlook, India Today, etc. It is the only institution from AP to achieve this distinction.

The institute's ambitious Research Exchange Programme (RExP) with leading research groups in the world is going on smoothly. Under this programme, PhD students spend as much as 6 months or more at the participating university abroad. The goal of the Institute is to become the pre-eminent institution in the country in IT education, research, and technology transfer, and make a difference to society.

The Institute is steadily moving forward in its goal to reach 100 PhD admissions per year. This would place the Institute right in the forefront, side by side with the leading institutions in the world.

In terms of campus infrastructure, 40 quarters for faculty and staff have been completed and occupied. This is enriching the life in the campus immensely. Some new additions to infrastructure are in progress. However, for many of these to be realized fully, significant resources are needed. Institute is trying to raise funds for these.

Since 2005, the alumni have raised Rs. 26 lakhs in donations which has provided financial support to 15 students in their education at IIIT-H. It is significant as our alumni are very young and are at the early stages of their career. Faculty and staff have donated a part of their salary arrears towards institutional development this year.

Summary

In summary, in the past twelve years, foundation for a strong institution has been laid. It has an innovative academic programme which is now being discussed in various quarters in the country for adoption. Research and technology development activity is firmly in place. A number of new initiatives are being taken to transfer new technologies to the industry and incubate several companies. A number of national and international linkages are in place, more are being pursued. A large research activity is focusing on societally relevant technologies. It has linked with the Government initiatives to benefit the common man in rural areas. Hopefully, it will lead to breakthrough technologies that help the masses, as well as serve as a ground for transforming students into socially conscious human beings.
Part II - B – Criterion-wise Evaluative Report

Criterion I: Curricular Aspects

1.1 Curriculum Design and Development

1.1.1 State the vision and mission of the institution.

- To train and educate, at both undergraduate and postgraduate levels, engineers of outstanding ability who can become leaders in the IT industry and profession.
- To carry out advanced research and development in information and software technologies and their societal, scientific, industrial and financial applications.
- To develop a larger humanistic vision of self and society within the institute and outside

To be able to inculcate research endeavor in students, to help establish research culture in the institute and to develop a larger humanistic vision of self and society.

1.1.2 What are the major considerations addressed by the goals and objectives of the institution? (Intellectual, Academic, Training, Access to the Disadvantaged, Equity, Self development, Community & National Development, Ecology and environment, Value orientation, Employment, ICT introduction, Global demands, etc.)

The key aspects on which the institute’s goals and objectives are driven by are that our graduating students must be

- Competent - know ‘what’, ‘why’ and ‘how’ of concepts
- Creative – acquire thinking required for problem solving, and vision to define future
- Caring – get insight into larger issues in life – coexistence with humans and nature, nurturing the planet

The above three components encompass the wider issues of intellectual, academic, self development, community and national development, ecology and environment, and ethical dimension of human life.

1.1.3 How are the institutional goals translated into the academic programmes, research and extension activities of the institution?

The goals of the institute are implemented by a novel institutional structure, an innovative curriculum, a project based pedagogy and an environment of inquiry all built carefully to meet the requirements. The institute is structured as research centers and not departments, the curriculum has flexibility allowing even the undergraduates to do research, many of the courses have projects and term papers, there is an environment of questioning and inquiry, and discussion on issues of ethics. The institute conducts extension activities to spread the research culture and ethics in the country.

1.1.4 How does the university guide its colleges to develop programmes based on their regional needs? (Not applicable for Unitary Universities)

Not Applicable
1.1.5 Specify the steps undertaken by the institution in the curriculum development process. (Need assessment, development of information database from faculty, students, alumni, employees and academic experts, and formalizing the decisions in statutory academic bodies.)

The institute has academic council that oversees the curriculum development process.

The institute undergoes major curriculum revision process once in ten years, and fairly extensive incremental changes in between.

The institute takes feedback from all the stakeholders in deciding the curriculum.

1.1.6 How do the Boards of Studies ensure the currency and relevance of the programme offerings?

The academic council ensures the currency and relevance of the programme offering, further inputs are taken from industry and graduating students, and alumni.

1.1.7 How employability is ensured through Curriculum design and development?

The institute prepares the students to take up a job, and industry specific skills that are needed will be acquired by the student as and when needed. The students are sufficiently trained in their ability to learn new concepts and apply them. The institute aims to train students not only for their first job but also for their last job.

1.1.8 State the curricular design and model adopted by the University in the organization of its curricula.

The institute uses choice based credit system, with semester based curricula. Each graduating student has to achieve minimal cumulative grade point average, and meet the credit requirements. A student takes recommended number of credits each semester. There is considerable flexibility provided to the student in choice and scheduling of courses.

1.1.9 How are the global trends in higher education reflected in the curriculum?

As a research institute, the faculty of the institute incorporates many of global trends in their courses. All the faculty are researchers and most attend international conferences and bring in the new ways of teaching to be incorporated in the courses.

1.1.10 How does the institution ensure that the curriculum bears some thrust on national development?

A number of advanced courses relate to issues and problems faced nationally. Research of faculty members relates to societal and industrial needs. Such research easily comes into courses through lectures and particularly through projects and term papers in courses.

In human values and in humanities courses there is emphasis on societal problems and ethical issues pertaining to our nation and society. (All UG engineering
students are required to take at least 5 Humanities and Social Science courses.) Further, students can take independent projects to work on technologies that lead to national development.

1.1.11 What is the composition of the Board of Studies? Specify PG and UG representation in the BOS if there is only one BOS for both?

Composition of Academic Council (in place of Board of Studies)

<table>
<thead>
<tr>
<th>Role</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
<td>Chairman</td>
</tr>
<tr>
<td>Dean (Academics)</td>
<td>Member-convener</td>
</tr>
<tr>
<td>Professors from IIIT-H</td>
<td>4 Members</td>
</tr>
<tr>
<td>Heads of Research Centres</td>
<td>4 Members</td>
</tr>
<tr>
<td>Visiting / Adjunct Processors</td>
<td>1 Member</td>
</tr>
<tr>
<td>An academic member from corporate schools</td>
<td>1 Member</td>
</tr>
<tr>
<td>Member to be co-opted from among those who have achieved distinction in academic research or industry</td>
<td>4 Members</td>
</tr>
</tbody>
</table>

1.1.12 Does the institution use the UGC/ AICTE guidelines for developing or restructuring the curricula?

The institute uses various guidelines including ACM/IEEE guidelines for forming its curricula.

1.1.13 What percentage of the courses focus on experiential learning including practical and work experience? For overall development of students, what measures have been taken in the Curriculum design?

About sixty percent of courses have project and/or practical work experience. These are the core technology courses, stream courses, and specific project courses. By providing institute breadth in engineering, sciences, maths, and humanities overall development of students is addressed.

1.1.14 What are the courses aiming to promote value education or social citizenship roles?

The institute has human values courses, strong humanities courses, and general environment in the institute to promote social citizenship. For example, there are two compulsory courses on human values (HS 1001, HS 1002) in the first two semester of UG Curriculum. These are followed by elective courses relating to Human Values.

Enormous effort has been put on developing the Human and ethical aspects. For example, the entire incoming UG class is divided into small groups of 10-12 students. A faculty member and a senior (PhD or MS) student is attached to each group, which
meets twice a week. The purpose of involving as many as 25 mentors is to make an impact by giving personal attention to these aspects. In fact, this effort has had transformational effect on students and general atmosphere.

1.1.15 **Is there a provision for computer skills to be incorporated in the curriculum for all students?**

As an Information Technology institute ICT skills are prevalent in all courses taught.

1.1.16 **Are women’s issues incorporated in the curriculum? If yes, what are the initiatives taken to introduce women related courses/topics in the curriculum?**

As part of human values and humanities courses, women’s issues are discussed. The gender issues integrate very naturally with the material in the courses.

1.1.17 **What programmes are developed for differently abled students and how the same is implemented?**

There are no specific programmes for differently abled students.

1.1.18 **What programmes are developed for distance education in the corresponding units?**

There are no distance education programmes.

1.2 **Academic Flexibility**

1.2.1 **What is the range of programme options available to learners in terms of Degrees, Certificates and Diplomas? Give the cut off percentage for admission at the entry level.**

For Under Graduate Programme, there are 7 programmes in 5 areas. The admission for the programme is through AIEEE, based on the All India Rank on merit basis only. Cutoff ranks (Lower and Higher) for the UG programmes are given below:

<table>
<thead>
<tr>
<th>Programme</th>
<th>Lower</th>
<th>Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.Tech CSE</td>
<td>88</td>
<td>2834</td>
</tr>
<tr>
<td>B.Tech CSD</td>
<td>3097</td>
<td>4134</td>
</tr>
<tr>
<td>B.Tech ECE</td>
<td>1127</td>
<td>4236</td>
</tr>
<tr>
<td>B.Tech ECD</td>
<td>3682</td>
<td>4571</td>
</tr>
<tr>
<td>B.Tech CND</td>
<td>3443</td>
<td>5618</td>
</tr>
<tr>
<td>B.Tech CLD</td>
<td>3825</td>
<td>5186</td>
</tr>
<tr>
<td>B.Tech EHD</td>
<td>5985</td>
<td>6633</td>
</tr>
</tbody>
</table>

For PG Programme, there are 28 programmes in 7 areas. The admission is through Post Graduate Entrance Examination conducted on all India basis through merit only.

1.2.2 **What other programmes are offered for employees/professionals in terms of training for career advancement?**

1. Part Time (All the degree programmes)

A large number of professionals working in the IT industry in Hyderabad are constantly looking for opportunities to further their knowledge, upgrade their skills, and
obtain higher qualifications. The Institute has made its courses available to the professionals in the Hyderabad area on a part-time basis. A part-time student takes 1 or 2 courses of their choice at the institute every semester. The degree programmes offered have exactly the same eligibility, breadth, and depth requirements as the institute’s full-time programmes.

2. PGSSP (Non-degree programmes)

The Institute conducts PG Student Status Programme (PGSSP) for the professionals in the Hyderabad area to enroll on a part-time basis.

PGSSP allows professionals to take individual courses of their interest without needing to enroll in a degree programme. This is suitable for professionals interested in acquiring new knowledge in chosen areas without regard to any degree. Students awarded the PGSSP status can take a maximum of two courses each semester. If they choose, based on their performance in the courses, professionals may be formally admitted into a part-time (or full-time) degree programme. The courses taken under the PGSSP scheme will then count towards the formal degree.

In case a candidate is interested in part-time research programmes (MS or PhD), they additionally meet relevant faculty members and discuss their research plans and/or do a project with them.

3. Continuing Education Programmes.

a. Training faculty and students from other engineering colleges as part of “Enhancing quality of IT education in engineering colleges”. Presently working with 15 engineering colleges. Around 65 faculty members from 15 colleges have been trained over 3 months each. They are distributed in the following districts: (Prakasam -2, Nalgonda-1, Guntur-1, Karimnagar-2, Khammam- 1, Kadapa-1, Warangal-1, Medak-2, Rangareddy-4)

b. Conducting various workshops for faculty and students of engg. colleges. For example, a workshop was held on open source tools to improve the productivity of the faculty and students of engineering colleges. Faculty and the students at the rural colleges are exposed to these productivity enhancement tools. They are being involved even after training to use the tools for their own work and projects.

1.2.3 Give the list of programmes offered by the University for the Colleges to choose from.

Not applicable – no affiliated colleges

1.2.4 What programmes are available for international students?

UG Programmes – From the academic year 2010

For Under Graduate programme the Institute has a 10 of the seats to students abroad on direct admission.

- B.Tech (Computer Science and Engineering) – 4 year Programme
- B.Tech (Electronics and Communications Engineering) – 4 year Programme
MSc:
  - M.Sc (Computational Natural Sciences)

All PG Programmes and PhD programs are available to international students.

1.2.5 Does the university provide twinning programmes? Give details

No

1.2.6 Does the institution offer any self-financing programmes in the institution? If yes, list them.

The Institute was setup as a not-for-profit public private partnership (N-PPP). All the programmes run by the Institute are self-financing which are listed below:

Under Graduate:
  - B.Tech (Computer Science and Engineering)
  - B.Tech and MS dual-degree (Computer Science and Engineering)
  - B.Tech (Electronics and Communications Engineering)
  - B.Tech and MS dual-degree (Electronics and Communications Engineering)
  - B.Tech (Computer Science) and MS (Computational Linguistics)
  - B.Tech (Computer Science) and MS (Computational Natural Sciences)

MSc:
  - M.Sc (Computational Natural Sciences)

Post BSc:
  - B.Tech (Computer Science & Engg) and MS (Computational Natural Sciences)

Post Graduate:
  - M.Tech (Computer Science and Engineering)
  - M.Tech (Computer Science and Information Security)
  - M.Tech (VLSI and Embedded Systems)
  - M.Tech (Computer Aided Structural Engineering)
  - M.Tech (Bioinformatics)
  - M.Tech (Computational Linguistics)

PG Diploma:
  - Post Graduate Diploma in Agriculture and Information Technology

MPhil:
  - M. Phil (Computational Linguistics)

MS by Research
  - MS by Research (Computer Science and Engineering)
  - MS by Research (Electronics and Communications Engineering)
  - MS by Research (Computational Natural Sciences)
  - MS by Research (Computational Linguistics)
  - MS by Research (Computer Aided Structural Engineering)
  - MS by Research (Bioinformatics)
  - MS by Research (IT in Building Science)
  - MS by Research (IT in Power Systems)
PhD:
- PhD (Computer Science and Engineering)
- PhD (Computational Natural Sciences)
- PhD (Electronics and Communications Engineering)
- PhD (Computational Linguistics)
- PhD (Computer Aided Structural Engineering)
- PhD (Bioinformatics)
- PhD (IT in Power Systems)
- PhD (Spatial Informatics)
- PhD (Cognitive Science)
- PhD (Exact Humanities)

1.2.7 What is the procedure adopted to extend additional programmes of studies to affiliated institutions?

Not applicable (no affiliated colleges)

1.2.8 Does the institution follow Annual System, Semester System, Trimester System and Choice Based Credit System (CBCS)?

The Institute follows semester system with credits earned in each semester. A student has to fulfill the required credits for award of the programme. We truly follow Choice Based Credit System (CBCS) with a large amount of flexibility (in choices) available to the student, both in terms of courses to choose from and in sequencing of compulsory or core courses.

1.2.9 Does the institution provide flexibility to pursue the programme with reference to the time frame (flexible time for completion)?

Our Programs have minimum and maximum time limit. The minimum is specified through minimum number of credits and residency requirements. A normal schedule for completing the minimum is also provided. A student can take longer time if needed, by going through the program in relaxed manner or take a semester or two off to pursue other things.

1.2.10 Does the institution have any provision for slow and disadvantaged learners? If yes for what courses?

The institute monitors all students and those not faring well in academics are provided with guidance from faculty mentor and help from student mentor. No specific courses are offered but special guidance is provided. They may also be advised or asked to reduce the number of credits in a given semester, if it is felt they cannot cope with the normal load.

1.2.11 How does the institution identify slow and advanced learners? How are the advanced learners facilitated to meet the challenges?

For UG1:

If a student gets CGPA < 5.5, his/her case is placed before Dean (Academics) and/or Academic Affairs Committee. Each case is looked at individually with a view to help the student improve his/her academic performance in future. In case, the student
gets poor grades (C- or below) in the core courses, he/she has to repeat the 1st year to build stronger foundation and also to satisfy prerequisites for 2nd year courses. For students who are asked to repeat the first year, all the old grades in courses are superseded by the new grades.

**Rules for students repeating the 1st year**

The student as well the parent has to give an undertaking with the following conditions.

a. Should get the minimum CGPA 5.5 in each semester of the repeating UG 1st year.
b. Should obtain grade [C] or above in core courses.
c. Any other condition decided by looking at the weaknesses of the student.

The student will be given only one chance to repeat the 1st year. His performance is checked at the end of each semester for possible action and advice. If the student fails to satisfy the above and also fails to satisfy any other condition(s) as given to him in writing the student will be terminated from the Institute at the end of any semester.

**For other years:**

If any student gets SGPA/CGPA < 5.5 or his SGPA falls by more than 2 points, he will be under probation in the next semester. The student has to give an undertaking as per the terms and conditions of the Institute. In case the student fails to satisfy the condition(s) as given to him in writing the student will be terminated from the Institute in any semester.

The students who have failed in courses, or have got low semester grade point average, or low cumulative grade point average are put under academic probation, and special guidance is provided as stated in 1.2.10.

**1.2.12 Does the institution provide flexibility to the students to move from one discipline to another? Give details.**

Yes. Only first year students of the Under Graduate programme are considered for branch change with the following conditions.

a. Student should have a minimum CGPA of 8 at the end of I year
b. Change of branch is permitted from branch p to branch q provided the change does not result in student strength in branch p falling below 10% of sanctioned strength and branch q does not go 10% above sanctioned strength.
c. Grades in the following courses are used to draw up the priority list:
   - Electrical Science, Basic Electronic Circuits for students wanting a change to ECE programme.
   - Computer Programming, Data Structures for students wanting a change to CSE programme.
d. In case of a tie, CGPA computed on courses other than English will be used.
e. And outcome of Interview with programme coordinator of CSE and ECE.
1.2.13 Does the institution provide facilities for credit transfer, if the students migrate from one institution to another institution in or outside the country?

For Post Graduate programs the institute provides credit transfer. Unused credits from other reputed institutions may be transferred to a target programme at IIIT. Application with supporting documents is to be made to the Dean for this. Decision is taken on each case after examining the documents. The institute does not accept transfer students for undergraduate programs.

1.2.14 Does the institution provide a) Core options b) Elective options c) Enrichment courses?

Yes. Distribution of Courses

Institute Core

Institute core consists of compulsory courses taken in specific semesters of the program. All students of the institute must satisfy the institute core requirement.

Program Core

Program stands for the individual student joins. The programs have certain compulsory courses to be taken in specific semesters of the program. All students must satisfy the respective program core requirement.

Institute Flexi-Core

The Institute states that some courses must be taken by all the students, but the semester in which they can be taken is not fixed. Students can flexibly schedule these courses. All students must satisfy the institute flexi-core requirement.

Program Flexi-Core

Program stipulates that some program courses must be taken by all the students but the semester in which they can be taken is not fixed. Students can flexibly schedule taking of these courses. All students must satisfy the respective program flexi-core requirement.

Electives

The institute offers a suite of electives that students need to take for any of the programs. There are minimum limits set on the number of credits that need to be taken for these electives.

Institute Electives - offered by the institute, do not belong to any specific program.

Program Electives - offered by different programs of the institute.
Other Than Program (OTP) Electives - every student belongs to a home program, and electives offered by programs other than the home program are Other Than Program Electives.

The above provide only the minimum requirements to graduate. All students are free to take any course offered in the Institute over and above the minimum requirements as long as they meet the pre-requisites of the course.

1.2.15 Does the institution provide the flexibility of combining the conventional and distance mode of education for students to make use of the combination of courses they are interested in?

The institute prepares digital content for courses that can be offered by instructors in remote location. Institute itself does not run any such degree programs.

The institute runs MSIT program which uses e-learning and sophisticated learning methodologies. Following are its significant features.

- No live lectures- only recorded lectures with other support material.
- Uses learning by doing methodology. Learning is based around problem solving and not around lectures.
- Self paced. As the lectures are all recorded, the student has considerable control over the pace of learning.
- Mentoring. Although there are no live lectures, it is not a distance education program. Students are required to be in their workspace and are provided mentoring. Mentors help in problem solving.

1.3 Feedback on Curriculum

1.3.1 How does the University obtain feedback from

a) students
b) alumni
c) employer
d) community
e) academic peers
f) industry
g) parents

The institute has curriculum revision committees and Academic Council that evaluate the curriculum. The student feedback is conducted formally and informally through town hall meetings called FSIS or Faculty Student Interaction Sessions slotted every week. The industry feedback is taken during placement time and in Academic Council itself. Alumni is a live and active group connected to each other through email mailing group. They are prompt in giving vociferous feedback.

Academic peer feedback is taken formally through their presence in Academic Council itself and informally when they visit for MS and PhD Viva.

There is no mechanism to obtain structured feedback from community at large and parents. However, there are some occasions on which informal feedback is taken.
1.3.2 How are the feedbacks used for significant changes in the curriculum?

The inputs to changes in curriculum are discussed at the course instructor level, the program level, the Institute level and appropriate changes made.

In the first five years of its existence (starting from 1998) the curricula have been updated almost every 2 years. When B.Tech in ECE program was started in 2003, it also brought about some amount of curricular changes to B.Tech in CSE to achieve a tighter integration (including common first year) between the two programs. ECE program also evolved similarly.

A major and total review of the curriculum was initiated in 2007. The new revised curriculum was implemented from the academic year starting in 2008.

1.3.3 Which courses had major syllabus revision during the last five years? (with change in title and content)

Courses undergo changes constantly. Core courses have a syllabus update every few years. Advanced courses change every year.

As an example, the syllabi of IT workshop course (3 course series) has undergone major updates in 2001, 2004, 2006 and 2008. Courses such as Problem Solving, Data Structures and Algorithms have been updated a few times.

Any faculty member teaching a course can initiate a process to change the course description etc.

It should be noted that institute provides considerable flexibility to its faculty in the conduct of courses, given the syllabi.

1.3.4 How do the affiliated institutions give feedback to the University on curricula?

Not applicable (no affiliated colleges)

1.4 Curriculum Update

1.4.1 Does the institution refer UGC/National/International models while updating curricula?

The institute checks the prevailing ACM and IEEE curriculum norms in deciding its curriculum and adapts to suit Indian conditions.

1.4.2 What are the interdisciplinary courses introduced during the last five years?

The institute has interdisciplinary programs as listed below:

M.Tech / MPhil / MS by Research / PhD in Computational Linguistics.
MS by Research / PhD in Computational Natural Sciences
M.Tech / MS by Research / PhD in Bioinformatics
M.Tech / MS by Research / PhD in Computer Aided Structural Engineering
MS by Research / PhD in Power Systems
1.4.3 How are the existing courses modified to meet the emerging needs?

The institute prepares its students for their first job as well as their last job. Emphasis is on self-learning, problem solving and in-depth understanding of the concepts.

1.4.4 What value added courses are introduced which would
a) develop skills
b) offer career training
c) promote community orientation?

Institute’s UG curriculum is designed to make the students highly skilled in their area of study in IT (both CSE and ECE), and the students are highly sought after by higher-end IT industry. Institute has taken several steps in making students more responsible. A unique aspect of the curriculum is the introduction of Human Values courses which connect the student to their own self and family, society and nature as described below.

Today's technical education, in its widely prevalent form, is not able to adequately empower students to think independently. Consequently, being driven by peer pressure, it is leading to a blind race for jobs that are intellectually and mentally unfulfilling, and wealth that breeds chaos in family and in society. However, education is not just about learning skills (how to) but also about developing the ability to decide on what (what to do?) and why (why to do?). It should lead to the development of critical ability in students towards distinguishing between essence and form, or between what is of value and what is superficial, in life. It should develop their understanding which is a prerequisite for a movement from rule based society to a relationship based society. In this regard, IIIT Hyderabad has introduced a compulsory course on Human Values in the undergraduate core curriculum. Rather than aiming at 'teaching' values, the course is structured to encourage students to discover what are of value for them and for the society. Thus the aim of the course is to enable students to discriminate between the valuable and the superficial in real situations in their life.

The course is conducted through discussions in small groups each mentored by a faculty member. There are no formal lectures in the course. During every class the faculty mentor introduces a topic and initiates the discussion. While analysing and discussing the topic, the faculty mentor's role is in pointing to essential elements to help in sorting them out from the surface elements. In other words, help the students understand the important or critical elements. For the above topics, scenarios are used to initiate discussion. Depending on the nature of topics, worksheets, home assignment and/or activities are included. What makes it challenging is the fact that the ability is to be developed not for a narrow area or field of study, but for everyday situations in life. Therefore, one week long intense workshop on Jeevan Vidya is conducted which allows students to reflect on questions pertaining to life.
1.4.5 Does the institution focus on multi skill development in its programmes? If yes, illustrate.

Effective communication is a primary skill for any graduating student. Language should not become a barrier or a hurdle in the natural progress of a deserving student. India is a multilingual nation and highly talented students may come with a background where English was not a medium of instruction. IIIT-H believes that not being adequately proficient in English should not become a disadvantage for such students. Thus, a course on English as a skill is offered for those students who may find it difficult to communicate in English initially. The purpose of the course is to train the students in English as a skill so that they are able to understand and participate in technical discussions effortlessly and without any hesitation. The course is offered in the first semester of the B.Tech program and carries two credits.

IIIT-H also offers courses to the students to develop skills in performing arts and to participate in community service. All undergraduate students have to complete at least six credits of courses which cover areas such as music appreciation, fine arts, dance etc. They also have the option to take up a two credit project on community service, thus working on a project which involves working on a socially relevant theme and gaining real time experience on the chosen topic.

1.4.6 What thrust is given to ‘Information Communication Technology’ in the curriculum for equipping the students for global demands?

This is an institute for information technology. ICT is pervasive in the institution. All students whether UG or PG, irrespective of their discipline or program, are given a training in use of IT. It includes not only how to use their computer for browsing office, networking, user accounts etc but also programming, databases, and specialized utilities needed by them.

1.4.7 How often is the curriculum pertaining to the affiliated institutions updated and diversified?

Not applicable (no affiliated colleges)

1.4.8 What were the initiatives to restructure the UG courses to make them socially relevant and / or job oriented?

IIIT-H programs are already professional preparing students for a career in industry or research.

Majority of UG students entering IIIT, have had at least two years of very rigorous and highly disciplined work ethics. However, they have also undergone extreme strain and tension which sap away their energies prior to joining the institute. Most of them attend coaching institutes for getting trained to secure high rank in very selective competitive exams (IIIT selects 175 students among top ranker's out of 750000 students who take All India Engineering Entrance Examination). The institution admission process ends at about top 2500 ranks. The achievement of getting into IIIT is a mixed feeling for most of these accomplished students, they are happy that they could get into a top institute in India, but they are also disappointed because with some more luck and hard work they could have gone into IITs.
The mentality of quite a few students was to spend four/five years at the institute to complete the degree requirements and then get a job or go for higher studies. The institute was used as a stepping stone for their global plans. This was contrary to the institute goals and ideals of involving students in academics, getting them to do research in their undergraduate years, and getting them to absorb the sense of belonging to the institute and society at large. In order to address these issues Human Values course along with weekly faculty interaction has been able to address issues related to identifying academic purpose as part of life purpose.

Our students today are a lot less worried about grades and more about the learning they have got out of the courses. By their 3rd year of study they realise that understanding of the material is valued and will take them forward in their life. They are able to decide the areas of specialization they would want to pursue and why. In fact, the students are able to eliminate some career paths because they have better understanding of their capabilities and desires. Quite a few students have taken early decisions (like end of second year) to pursue a research career by shifting from course driven B.Tech program to thesis driven Dual-Degree program of B.tech and Masters by Research.

The aim of the institute to be a serious academic place in the world where all round development of students is supported by the strong human values component in the academic program.

1.5 Best Practices in Curricular Aspects

1.5.1 What are the quality sustenance and quality enhancement measures undertaken by the institution during the last five years in curricular aspects with reference to curricular design and development / academic flexibility / feedback from stakeholders / curriculum update?

The institute has an innovative undergraduate curriculum. The key principle is to get students to see the big picture and acquire skills to immerse themselves in doing things. Following are the salient points about the curriculum, and how it benefits the research-led focus of the institute.

a. Layered learning

Layered learning approach means that theory and practice are learnt in layers one after another. This ‘practice, theory, practice’ pedagogy, as we call it, provides the requisite impetus for our students to join and do research at undergraduate level. The core fundamental concepts come at their own pace. The skills are taught side by side. These are followed up with projects where they apply skills using concepts learnt without waiting for complete theory to be taught. This ensures that learning is hands-on. Another advantage is that when they learn more theory, they are able to relate to practice (including errors they might have made), and become more motivated to learn theory. This is again followed by practice and so on.

This is implemented by having all UG students do skill courses along with theory during the first three semesters thus enabling them to do a project in their 2nd or 3rd semester. These are followed up with appropriate theory courses which in turn lay the basis for courses with strong project components. They can also take independent projects in 4th and 5th semester. The enhancement of the abilities of the students gets
clearly reflected in the quality of their B.Tech projects, which they do in their 6\textsuperscript{th} and 7\textsuperscript{th} semesters.

b. Area Courses Early

Core courses of the program area start early on in the curriculum along with Maths, Science and Humanities. Broad courses in engineering or sciences come later. This prepares students with the necessary fundamentals of their respective programs and enables them to derive maximum returns from advanced courses in their streams of interest starting from fifth semester.

c. Research option

The students can do research in a specific stream within a program by joining the honours program after fourth semester. For example, a student can work in Language technologies in computer science program. The mechanism to enable the students involves three steps: (i) lean set of core courses - we used the concept of bouquet core wherein a student has a choice of taking six out ten core courses, and fundamental concepts of these eight courses are covered in the earlier courses. (ii) flexible scheduling of core courses - the students can take necessary stream electives earlier in their program by replacing some of the core courses, identified as ‘flexi-cores’, which they can take later (iii) Provide early slots for elective courses: The students can opt for elective courses even in their fourth semester. These steps facilitate students to opt for research option (i) by providing students in getting the necessary background early on and (ii) by allowing them to design and pace their curriculum according to their research interests.

d. Strong Humanities and Social Sciences

The students have to take six courses from humanities and social sciences. These courses help students gain a broader perspective on fundamental societal issues at the national level. We feel that such a perspective can enable the students to transcend the confines of a purely technology driven paradigm and allow them to plan their career goals and objectives from a ‘social good’ point of view.

e. Human Values

Most students who come to the institute have had rigorous academic and technical training at their 10+2 level and have seldom had the opportunity to understand the larger issues relating to life. With compulsory human values courses in 1\textsuperscript{st} year, we draw the attention of the student towards their own thoughts and to their relationships in society and in nature. We introduce these issues to the students, and help them decide their choices on the basis of their own understanding rather than by peer pressure.

f. Breadth

The curriculum includes courses on large engineering systems telling them about how they work, and how 24x7 working of these systems are ensured. The students get the exposure to the block level analyses of these systems and get to evaluate the goodness of such systems.
The science courses are also designed differently. Rather than having separate courses in Physics, Chemistry, Biology etc., the science courses try to present a unified picture of nature and of methods to understand natural processes.
Criterion II: Teaching – Learning and Evaluation

2.1 Admission Process and Student Profile

2.1.1 How does the institution ensure wide publicity and transparency in the admission process?

Till the academic year 2009-10, UG admissions to the Institute are through Central Counseling Board (CCB) / AIEEE conducted by MHRD, Govt. of India. For the academic year 2010-11, admissions through “Institute Counseling” using the ranks of AIEEE.

For PG admissions the Institute conducts its own entrance test followed by interview. Advertisements are released in leading news papers in the country to give wide publicity to the programmes and to attract students from all parts of the country. In addition the Institute sends the programme details, admission procedures etc., to engineering colleges of the country to give wide publicity of the programmes.

2.1.2 How are the students selected for admission to the following courses?

a) General
b) Professional
c) Vocational

We have Professional courses only except for MSc in Computational Natural Sciences (CNS) and PhD in Exact Humanities & CNS. Admission details are in 2.1.1

2.1.3 What strategies are adopted to create access to?

a) Disadvantaged community
b) Women
c) Differently-abled
d) Economically-weaker sections of the Society
e) Athletes and sports persons

The institute admits all students as per open category on merit system only. However few scholarships are provided for students from economically weaker sections.

2.1.4 How many applications were received and how many were granted admissions for the following courses?

<table>
<thead>
<tr>
<th>No. of Applications</th>
<th>No. Admitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Professional courses</td>
<td></td>
</tr>
<tr>
<td>b) General courses</td>
<td></td>
</tr>
<tr>
<td>c) Vocational courses</td>
<td></td>
</tr>
<tr>
<td>d) Post-graduate courses</td>
<td></td>
</tr>
<tr>
<td>e) Undergraduate courses</td>
<td></td>
</tr>
<tr>
<td>f) For all courses</td>
<td></td>
</tr>
</tbody>
</table>

The admissions usually close around the all India rank of 2500 in AIEEE. The number who write the AIEEE exam are more than 7 lakhs. We are the MOST sought after institution out of AIEEE / CCB. For PG programmes for the academic year 2010-11, the number of applications received were 3552, and number of students admitted were 100.
2.2 Catering to Diverse Needs
2.2.1 Is there a provision for assessing student’s knowledge/ needs and skills before the commencement of the teaching programme?

The institute conducts English proficiency test for Under Graduate students on their arrival to identify students who are weak in English and offer them a course in English.

2.2.2 Does the institution provide bridge courses to the educationally-disadvantaged students?

No separate programs

2.2.3 What programmes are offered to the students from the disadvantaged communities?

No separate programs

2.2.4 What specific strategies are adopted for facilitating

a. Advanced students?

For advanced learners we have honours program where the students can pursue a specific area of interest and do research even while being an undergraduate.

b. Slow learners?

See 1.2.10 and 1.2.11 for support extended to slow learners.

2.3 Teaching-Learning Process

2.3.1 How does the institution plan and organize the teaching learning evaluation schedule into the total scheme? Does the University have an academic calendar? How is it prepared?

The university announces its academic calendar well in advance every year. The calendar is prepared taking into account the following considerations:

* Each course should have roughly 42 hours of lectures in a semester.
* The university follows national and state government holidays.
* There is provision for two mid-semester exams and one end semester examination.
* There should be scope for academic and cultural events such as R&D Showcase, Excitement of Research Workshop, Felicity, Sports meet, etc.

The academic calendar is prepared by the co-ordinator of the almanac committee and is discussed in the Academic Affairs Committee (AAC). The AAC consist of the Director, Dean(Academics), Dean (R&D), the Student Life Committee Chair, and UG and PG Program chairs.

Once discussed in the AAC in detail, the calendar is presented at the faculty meeting for discussion and finalization.
2.3.2 What are the courses which predominantly use the lecture method? Apart from classroom interactions, what are the other methods of learning experiences provided to students?

The curriculum favors the practice, theory, practice pedagogy. This means that there are core skills courses, followed by a project in the first three semesters. In the next two semesters courses that cover the theoretical basis behind the skills learned are taken. In the last three semesters, advanced courses, along with a one year project, will dictate the practice component. This pedagogy helps students doing Honours and Dual-Degree to take up projects/thesis in their fifth and eight semesters.

2.3.3 How is ‘learning’ made student-centered? Give a list of the participatory learning activities adopted by the institution, which contribute to self-management of knowledge development and skill formation?

The students are asked to work on projects either individually or in a group setting wherein they have to come up with solution on their own and learn how to solve problems on their own. Most of the projects whether as part of courses or B.Tech projects are done in ‘self-learning’ mode. Annual R&D showcase is conducted for students to showcase their work to audience inside and outside of IIIT-H.

2.3.4 What are the modern teaching aids used in classroom instruction? What are the other student learning experiences?

The students are taught using LCD projectors, page projectors, tablet PCs, and traditional OHP and black boards. The students have monitored lab sessions using recommended equipment. In case of human values, small gurukul like gathering with mentor and about dozen students are conducted.

2.3.5 Is there a practice of having tutorial classes for the students? If yes, for what courses?

Tutorials are conducted extensively in many courses. In case of first 3 semesters of undergraduate, tutorials are scheduled in time table.

Many courses such as UG flexi-core and 1st semester M.Tech courses, tutorials are organized by the instructor and TAs. With an extensive system of TAs, tutorial help is available in almost all courses.

The details of the courses are given below:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CS 3111</td>
<td>Advanced Algorithms</td>
</tr>
<tr>
<td>2.</td>
<td>CS 3000</td>
<td>Advanced Problem Solving</td>
</tr>
<tr>
<td>3.</td>
<td>CS 3110</td>
<td>Algorithms</td>
</tr>
<tr>
<td>4.</td>
<td>EC 3300</td>
<td>Analog &amp; Digital Communications</td>
</tr>
<tr>
<td>5.</td>
<td>EC 3050</td>
<td>Analog and Digital Circuits</td>
</tr>
<tr>
<td>6.</td>
<td>CS 3705</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>7.</td>
<td>IEC 103</td>
<td>Basic Electronic Circuits</td>
</tr>
<tr>
<td>8.</td>
<td>MA 4505</td>
<td>Bio Statistics</td>
</tr>
<tr>
<td></td>
<td>Course Code</td>
<td>Course Title</td>
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<td>---</td>
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<td>----------------------------------------</td>
</tr>
<tr>
<td>9</td>
<td>EC 3800</td>
<td>Communication Networks</td>
</tr>
<tr>
<td>10</td>
<td>CS 3155</td>
<td>Compilers</td>
</tr>
<tr>
<td>11</td>
<td>CS 3350</td>
<td>Computer Networks</td>
</tr>
<tr>
<td>12</td>
<td>ICS 101</td>
<td>Computer Programming</td>
</tr>
<tr>
<td>13</td>
<td>CS 3301</td>
<td>Computer Systems</td>
</tr>
<tr>
<td>14</td>
<td>ICS 104</td>
<td>Computer Systems Organization</td>
</tr>
<tr>
<td>15</td>
<td>ICS 103</td>
<td>Data Structures Programming</td>
</tr>
<tr>
<td>16</td>
<td>CS 3400</td>
<td>Database Management Systems</td>
</tr>
<tr>
<td>17</td>
<td>IEC 101</td>
<td>Digital Logic Processors</td>
</tr>
<tr>
<td>18</td>
<td>ECC 4100</td>
<td>Digital Signal Processing</td>
</tr>
<tr>
<td>19</td>
<td>MA 3201</td>
<td>Discrete Maths &amp; Algorithms</td>
</tr>
<tr>
<td>20</td>
<td>CS 2270</td>
<td>DSP for Computer Scientists</td>
</tr>
<tr>
<td>21</td>
<td>ET 1000</td>
<td>Electrical Science-I (Half Course)</td>
</tr>
<tr>
<td>22</td>
<td>EE 3001</td>
<td>Electromagnetic Theory</td>
</tr>
<tr>
<td>23</td>
<td>IEC 104</td>
<td>Electronic Workshop 1</td>
</tr>
<tr>
<td>24</td>
<td>EC 2051</td>
<td>Electronic Workshop II</td>
</tr>
<tr>
<td>25</td>
<td>ET 3280</td>
<td>Embedded Systems 1</td>
</tr>
<tr>
<td>26</td>
<td>CS 3109</td>
<td>Formal Foundation of VLSI Design</td>
</tr>
<tr>
<td>27</td>
<td>CS 5476</td>
<td>Info. Security, Audit &amp; Assurance</td>
</tr>
<tr>
<td>28</td>
<td>SC 3201</td>
<td>Introduction to Biology</td>
</tr>
<tr>
<td>29</td>
<td>ET 5600</td>
<td>Introduction to VLSI design</td>
</tr>
<tr>
<td>30</td>
<td>CS 1010</td>
<td>IT Wkshp-1: Comp. Sys &amp; Environment</td>
</tr>
<tr>
<td>31</td>
<td>CS 2010</td>
<td>IT Wkshp-3: Software Techniques</td>
</tr>
<tr>
<td>32</td>
<td>ICS 105</td>
<td>IT Workshop -2</td>
</tr>
<tr>
<td>33</td>
<td>CS 3001</td>
<td>IT WS 1A</td>
</tr>
<tr>
<td>34</td>
<td>MA 3100</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>35</td>
<td>EE 6501</td>
<td>Linear Control Systems</td>
</tr>
<tr>
<td>36</td>
<td>IMA 102</td>
<td>Mathematics II</td>
</tr>
<tr>
<td>37</td>
<td>MA 1000</td>
<td>Mathematics I</td>
</tr>
<tr>
<td>38</td>
<td>MA 3200</td>
<td>Mathematics III</td>
</tr>
<tr>
<td>39</td>
<td>EC 3200</td>
<td>Microprocessors based system design</td>
</tr>
<tr>
<td>40</td>
<td>CS 3300</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>41</td>
<td>MA 3500</td>
<td>Probability and Random Processes</td>
</tr>
<tr>
<td>42</td>
<td>CS 3003</td>
<td>Problem Solving and Programming</td>
</tr>
<tr>
<td>43</td>
<td>ET 3105</td>
<td>Signals &amp; Systems</td>
</tr>
<tr>
<td>44</td>
<td>CS 3600</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>45</td>
<td>CS 3002</td>
<td>Software Technologies –ITWS 1B</td>
</tr>
<tr>
<td>46</td>
<td>CS 3105</td>
<td>Theory of Computation</td>
</tr>
<tr>
<td>47</td>
<td>AM 6101</td>
<td>Theory of Elasticity</td>
</tr>
<tr>
<td>48</td>
<td>EC 3600</td>
<td>VLSI Design</td>
</tr>
</tbody>
</table>
2.3.6 Is there a provision for counsellors / mentors/ advisors for each class or group of students for academic and personal guidance? If yes, specify.

Academic curriculum has "Human Values" course which is essential component in first year. The course is conducted through discussions in small groups each mentored by a faculty member. During every class the faculty mentor introduces a topic and initiates the discussion. While analyzing and discussing the topic, the faculty mentor’s role is in pointing to essential elements to help in sorting them out from the surface elements. In other words, help the students focus on the important or critical elements.

While discussing different topics, the mentor encourages the student to connect with one's own self and do self observation. The student is encouraged to take up "ordinary" situations rather than "extra-ordinary" situations. Such observations and their analyses are shared and discussed with other students and faculty mentor, in a group sitting.

Later in second year, if any student is performing below the acceptable limits or if observed under severe pressure, then that student will be mentored by a faculty and a senior student.

2.3.7 How is the academic progress of each student monitored by the faculty?

For Under Graduate Students:

If a student gets CGPA < 5.5, his/her case is placed before Dean (Academics) and/or Academic Affairs Committee. Each case is looked at individually with a view to help the student improve his/her academic performance in future. The student may be asked to repeat the first year in which case all the old grades in courses would be superseded by the new grades. In case, the student gets poor grades (C- or below) in the core courses, he/she has to repeat the 1st year to build stronger foundation and also to satisfy pre-requisites for 2nd year courses.

Rules for students repeating the 1st year

The student as well the parent has to give an undertaking with the following conditions.

a. Should get the minimum CGPA 5.5 in each semester of the repeating UG 1st year.

b. Should obtain grade [C] or above in core courses.

The student is given only one chance to repeat the 1st year. His performance is checked at the end of each semester for possible action and advice. If the student fails to satisfy the above and also fails to satisfy any other condition(s) as given to him in writing the student is terminated from the Institute at the end of any semester after a review on a case by case basis.

For other years:

If any student gets SGPA/CGPA < 5.5 or his SGPA falls by more than 2 points, he is placed under probation in the next semester. The student has to give an undertaking as per the terms and conditions of the Institute. In case the student fails to
satisfy the condition (s) as given to him in writing the student will be terminated from the Institute in any semester.

Monitoring of Academic Performance of Students

At the end of each semester all the students who gets CGPA < 5.5 are given a written warning regarding their poor performance in terms of minimum credit requirements, poor CGPA/SGPA and the maximum duration of stay at the Institute, as applicable.

The performance of all these would be monitored by the Dean, Academics who would try to assess the causes for poor performance of each student, and advise him/her accordingly for improving the performance in subsequent semester. In addition, he would refer their cases to the respective teachers and faculty advisors for close observation/monitoring. Faculty advisors would be asked to advise these students regarding choice of courses, number of courses to be taken, and total credits to be registered by them as well as observe their performance closely.

In case any student fails to satisfy the criteria and also fails to satisfy any other condition(s) as given to him in writing shall forfeit his/her registration and his/her programme shall be terminated.

2.3.8 Give details of the course by sessions of work assigned and implemented in the tutorial session?

Details of courses are given in 2.3.5

The Tutorial sessions are problem solving sessions on material presented in Lectures.

The lab sessions are skills development sessions where in students learn practical implementation aspects of the material taught in the lectures.

2.3.9 How do the students and faculty keep pace with the recent developments in the subjects?

Faculty are involved in research and attend conferences which allows them to keep pace with latest developments. Faculty also conduct tutorials on latest research topics at national and international conferences.

2.3.10 Are there departmental libraries for the use of faculty and students? If yes, give details

We don’t have departmental libraries in general. We prefer to have a main library as ours is a University institution.

2.3.11 On an average, how many students and faculty use the library per week?

Students and faculty use library on an average of 1050 students and 60 faculty members.
2.3.12 What are the initiatives taken to make optimum utilization of INFLIBNET/DELNET facility by the students and faculty?

At present we are the member of INDEST Consortium only for which. We provide link on our Web page of all the subscribed e-journals through INDEST Consortium for easy access to the users. As ours is a research institution, students and faculty themselves seek out the journals and conference proceedings that they need. Electronic access is used extensively.

2.3.13 How does the library collect books and journals for all departments?

We procure the books by conducting the exhibitions, by displaying publisher’s catalogue and forwarding the mails received from the publishers about new upcoming titles to faculty and also through recommendations from faculty and students. In regard to the journals we are subscribing to the journals as per the request from the faculty.

2.3.14 How does the library manage to cater to the needs of teachers and students with access to books and journals and timings?

We follow an open access system of racks. Loan facility is provided as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Time Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>6 months</td>
</tr>
<tr>
<td>PhD students</td>
<td>2 months</td>
</tr>
<tr>
<td>M.Tech Students</td>
<td>14 days</td>
</tr>
<tr>
<td>M.S. and B.Tech students</td>
<td>14 days</td>
</tr>
</tbody>
</table>

All the back volumes of journals are provided on loan for one week to the Faculty and students.

Our library functions from 9.00 A.M. to 12.00 P.M. for all working days and 10.00 A.M. to 5.00 P.M. on public holidays to access the reading material.

2.4 Teacher Quality

2.4.1 What is the faculty strength of the University? How many positions are filled against the sanctioned strength? How many of them are from outside the State?

Strength of the faculty: 71
Outside Andhra Pradesh State: 34

2.4.2 How are the members of the faculty selected? Does the University have the required number of qualified and competent teachers to handle all the courses for all departments? If not, how does the University cope with the requirements?

The Institute advertises in leading newspapers and through Institute web page. The short listed applicants are required to give a talk in their area of research and to have one-to-one discussions with the existing faculty and the Director of the Institute. Thereafter a feedback from the faculty is taken before offering appointment.
2.4.3 Does the University appoint substitutes/additional faculty to teach existing and new programmes? How many such appointments were made during the last year?

The Institute appoints guest faculty for Humanities and Social Science courses on semester wise basis. During the last year 18 guest faculty are appointed.

2.4.4 What is the teacher student ratio?

1 : 17

2.4.5 What percentage of the teachers have Ph.D. as the highest qualification?

95% (out of Asst. Prof, Assoc. Prof, Prof.)

2.4.6 What percentage of the teachers have M. Phil or M.Tech as the highest qualification?

5%. However, even these have very rich experience equivalent to PhD

2.4.7 What percentage of the teachers have completed UGC, NET and SLET exams?

As desired above, almost all our teachers (Asst. Prof, Assoc, Prof, Prof.) hold PhDs

2.4.8 What efforts are made by the management to promote teacher development? (eg: research grants, study leave, deputation to national/international conferences/ seminars, in-service training, organizing national/international conferences etc.)

The Institute has 18 Research Centres and 10 Research labs on campus. The Institute provides initially seed money to each Research Centre as research grant.

The Institute has a policy of supporting faculty to attend national and international conferences and present research papers. The Institute supports an amount of Rs. 7000/- per faculty per year towards registration fee, travel and stay for attending conferences held within India and Rs. 1.50 lakhs during the entire period of service towards registration fee, travel and stay for conferences held outside India.

Besides these, each faculty has professional development account which can be used to attend international conferences etc. Similarly, each centre has a Standing A/c which can be used for travel to attend conferences in India or abroad.

2.4.9 What are the teaching innovations made during the last five years? How are innovations rewarded?

Innovations have been made in teaching of first course in programming followed by data structures and algorithms, which are based on intense problem solving method.

E-learning based on learning-by-doing methodology has been introduced in MSIT, described elsewhere in this report.
2.4.10 Does the institution have representation of women among the staff? If yes, what percentage?

Yes. 10% in Non-teaching staff and 13% among teaching staff

2.4.11 List the faculty who have been recognized for excellence in teaching during the last five years?

We do not have teaching awards in place. Based on student feedback in UG core courses, a few of faculty have been commended informally in faculty meetings.

2.4.12 List the faculty who have undergone staff development programmes during the last five years (refresher courses, orientation programmes and staff training conducted by the university and other institutions)

All faculty usually attend international conferences and workshops in their research area once a year. They usually do not attend refresher courses.

2.4.13 What percentage of the faculty served as resource persons in Workshops/Seminars/Conferences during the last five years (average)?

100%. All faculty members have served as either paper reviewers or invited speakers or organizers of workshops and conferences in their research area.

2.4.14 What percentage of teaching staff participated in Workshops/Seminars/Conferences and presented papers during the last five years? (average)

100%

2.4.15 Has the faculty been introduced and trained in the use of
   a) Computers
   b) Internet
   c) Information Technology
   d) Audio Visual Aids
   e) Computer Aided Packages

Yes. All faculty are well qualified and everyone uses the above said packages in their teaching in the classrooms.

2.4.16 Does the university have an Academic Staff College? If yes, give the details of programmes it offers.

No.

2.5 Evaluation Process and Reforms
2.5.1 Does the university evaluate teachers on teaching and research performance? How does the evaluation help in the improvement of Teaching and Research?

Teaching is evaluated through course feedback by the students, the evaluation of the course is conducted by the academic administration of the institute. Research is evaluated based on yearly self-appraisal report by faculty members containing teaching
info, publications and technology transfer. Besides this professional and societal service is also given importance. All these naturally give positive feedback to teaching and research.

2.5.2 Has the institution introduced evaluation of the teachers by the students? If yes, how is the feedback analyzed and implemented for the improvement of Teaching and Learning?

The student feedback is taken every semester on every course that is taught. The feedback is analyzed and appropriate guidance is provided to faculty to improve the course conduct. The course content and examinations are also evaluated.

2.5.3 Does the institution promote self-appraisal of teachers? If yes, how often?

Yes. Yearly once.

2.5.4 Is the appraisal by the teachers reviewed by the head of the institution and used to improve the quality of teaching?

Yes. The course feedback is evaluated by the head of the institution and Dean (Academics), and appropriate guidance is provided to the faculty. This evaluation forms the basis of annual increment in salary.

2.5.5 Does the institution have an academic audit of the department? If yes, illustrate.

The academic office conducts course evaluation, and additional evaluations are done by the Dean (Academics).

2.5.6 Based on the recommendations of academic audit what specific measures have been taken by the institution to improve the teaching, learning and evaluation?

The recommendations of academic audit and feedback are used to introduce many measures. For example, the curriculum was changed to reduce workload of first year students. Advice is given to faculty members in the way courses should be taught by relying less on power point presentations, and more on explaining of the concepts.

2.5.7 How does the institution monitor the performance of the students? (Annual/ Semester exam, Trimester Exam, Midterm Exam, Continuous assessment, Final exam, etc.,)

There is a system of continuous evaluation and monitoring of students.

The grade awarded to a student in a course for which he is registered, are based on his performance in quizzes, tutorials, laboratory work, and home assignments, etc. as applicable, in addition to two mid-semester exams and the final semester examination for the course. Typical weightages might be 40% for the final exam, 25% for the mid-semester exams, and suitable weightages for quizzes, home assignments, laboratories, and tutorials. However, the instructor is free to conduct and assign weightages to the exams as well as term papers, open book exams, special laboratory exercises, solving of open problems, in the manner he deems fit for the course as long as these are informed to students in the course. The distribution of weightage should be decided and
announced by the course instructor, at the beginning of the course, so that the students are aware of the evaluation mechanism to be followed in the course.

2.5.8 Are the evaluation methods communicated to the students at the beginning of the year? If yes, how?

Yes. At the beginning of every semester the course description and evaluation criteria (format given below) are announced to the students and also put up on intra website.

Course Description Format

TITLE : 
CREDITS : 
TYPE-WHEN : 
FACULTY NAME : 
PRE-REQUISITE : 
OBJECTIVE : 
COURSE TOPICS : 
PREFERRED TEXT BOOKS: 
*REFERENCE BOOKS: 
*PROJECT: 
GRADING: 
OUTCOME: 
REMARKS: 

2.5.9 What is the method of evaluation followed? (Central, Door, Double evaluation, etc.,)

Largely, relative grading is followed in which a histogram is drawn showing the number of students against marks obtained in the course. There are recommended average number of students for each grade. However, the instructor is free to look at the overall absolute performance of the class and award grades. Thus, it brings in element of relative grading with absolute.

Relative Grading

In relative grading a histogram of total marks obtained by all students is taken and ranges for assigning various grades are decided at the time of giving the grades. These ranges for assigning grades are based on upper limit of percentage (see grade distribution below) of students in a course that can have a particular grade. While deciding the relative grades the course instructor may keep in mind that an excellent performance in his/her judgment gets a ‘A’, a good performance a ‘B’, and so on. A violation of this upper limit will require a reassignment of grades to students.

Grade Distribution (Upper limits)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/A-</td>
<td>35%</td>
</tr>
<tr>
<td>B/B-</td>
<td>35%</td>
</tr>
<tr>
<td>C/C-</td>
<td>30%</td>
</tr>
<tr>
<td>D/F</td>
<td>as per students performance.</td>
</tr>
</tbody>
</table>
2.5.10 What is the mechanism for Redressal of grievances regarding evaluation?

After finalization of the grades, the letter grades awarded are announced on the Institute notice board. In case any student feels aggrieved, he can contact the teacher concerned within three weeks from the commencement of the semester immediately following the announcement of the results. The student anyway have access to his answer paper/s in mid semester exams and end semester examination which may be shown to him by the teacher/s concerned. If the teacher feels that the case is genuine he may re-examine the case and forward a revised grade, if any, to the Academic Section, with justification for the revision.

In the interest of transparency, the teachers are encouraged to show answer papers of all exams and quizzes to the students, whether aggrieved or not. They are encouraged to make suitable announcements regarding date and time for showing final exam answer papers. The final exam answer papers should be preserved by the teacher (or by the Academic Section, in case of external faculty or guest faculty) for at least six months after the exam is over.

2.5.11 When are the examination results declared? Give the time frame

The results declared after 10 working days from the last date of the examination.

2.5.12 Does the institution communicate to the parents regarding the evaluation outcome?

The institute has developed parents portal. A parent through this portal can access and see the details of his ward about monthly attendance and academic grades in each semester.

The Institute also sends the grade sheet to the parents every year. The parents are also informed regarding the performance of the weak students after every semester in order to take care of their ward.

2.5.13 How long has the current system of evaluation been in practice?

Since inception.

2.5.14 Has the institution developed any evaluation reforms?

Institute provides enough freedom to its faculty members to decide on right evaluation scheme for the courses. Not all of them are examination oriented.

2.5.15 What are the reforms made with reference to evaluation?(Double evaluation, Open book examination, Question Bank, Moderation, Internal assessment)

Open book examinations, lab examinations, take-away examinations, oral examinations, project presentation, demonstration, and theatrical plays are some of the ways in which students are evaluated.
2.5.16 Is evaluation procedures made transparent, If yes, how? Illustrate the different stages of evaluation till the declaration of results?

Evaluation procedure for each course is described at the beginning of the semester and also placed on each course website. As part of it, weightages for mid term exams, end sem exam, home assignments, term papers etc are declared. As explained earlier, all the evaluations of the assignments / Mid sem / End Sem papers are shown to the students. Based on the weightage the final grades are announced.

2.5.17 Does the University have continuous assessment, If yes, please specify the weightage?

Yes. Refer to 2.5.7

2.5.18 What is the scheme / system of examination in practice for the affiliated institutions?

Not applicable (no affiliated colleges)

2.5.19 Give details of the number of question papers set, examinations conducted per year.

2 Mid sem exams and 1 End sem exam for each semester.
1 paper each for examination.

2.5.20 Mention the number of malpractice cases reported and how they are dealt with.

A Disciplinary committee exists with a panel of faculty and a student representative. Whenever a malpractice of a student comes to the notice of the Institute, the case is referred to Disciplinary committee which conducts the enquiry and submit its report to the Director for appropriate action against the student.

2.5.21 Does the university provide the photocopy of answer scripts to students? If yes, give details of the practice.

Actual answer scripts are shown, not the photocopy. As mentioned, in the interest of transparency, the teachers are encouraged to show answer papers of all exams and quizzes to the students.

2.5.22 Give details regarding the computerization of the examination system?

The Institute maintains the IIIT Student’s Administrative System (ISAS) of all the students. In the ISAS, the personal details of the every student, course registration, examination grades are stored, which can be viewed by the student to know his academic record.

With this ISAS, the transcripts and provisional certificates of the students are generated.
2.6 Best Practices in Teaching-Learning and Evaluation

2.6.1 What innovations / best practices are followed by the college with regards to teaching, learning and evaluation? With reference to admission process, student profile / catering to diverse needs / teaching-learning process / teacher quality / evaluation process and reforms or any other quality initiatives.

a) The course instructors at the institute are mostly active researchers in their area of expertise. They attend domain specific conferences, contribute to state of the art in the area, and bring the latest developments into teaching. The faculty also interacts with industry and other users of the technology to provide real-world perspective on the course material taught.

b) The institute uses web-based information dissemination and management of the course materials. There is a courses portal that is accessed by course instructors and teaching assistants to upload course materials, set up assignments, and answer student queries. The students use the course portal to upload assignment submissions, download course material, ask doubts, and keep track of their progress in the course.

c) The institute constantly monitors all aspects of the academics, including the way the courses and labs are conducted, the quality aspects of teaching and academic research. We are using novel practice-theory-practice pedagogy that is continuously monitored and amended when required. In a research led university, like ours, ensuring the quality of the academics in the institute is a key focus.

d) The institute makes extensive use of Teaching Assistants. Senior UG students as well as MS and PhD students play an important role in tutorials, laboratory sessions and helping the junior students. This has helped in raising programming skills to very high levels for our students.
Criterion III: Research, Consultancy and Extension

3.1 Promotion of Research

3.1.1 Is there a research committee to facilitate and monitor research? If yes, give details.

The research at the institute is facilitated and monitored by the Dean (R&D) with suitable committees. The coordination with external research is handled by Dean (R&D) along with the heads of concerned research laboratories or centres and the principal investigators. Industry liaison for research and consultancy is overseen by a industry liaison committee and the industry outreach section. Coordination and alignment between academic research towards thesis and sponsored research from government and industry is important for the overall research to prosper. With this end, the Dean (R&D) also sets up committees and monitors the progress of students of the doctoral and research-based masters programmes.

3.1.2 Is research a significant activity of the university, If yes, How does the institution promote faculty participation in research?

Research is placed on equal footing with teaching as indicators of progress for a faculty member at the institute. The annual appraisal and evaluation emphasizes this. The faculty members are also affiliated very closely with research centres related to their areas of expertise. The institute also provides seed funding to the faculty members to start their research off. It also has schemes to amplify their own efforts at raising funds from outside. The institute also has schemes to fund the faculty members and students to attend conferences in India and abroad. Over 40% of the institute's total budget is spent on research.

3.1.3 What provision is made in the budget for research and development?

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>provision of budget (in Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>1801.70</td>
</tr>
<tr>
<td>2008-09</td>
<td>1283.00</td>
</tr>
<tr>
<td>2007-08</td>
<td>884.00</td>
</tr>
<tr>
<td>2006-07</td>
<td>691.00</td>
</tr>
<tr>
<td>2005-06</td>
<td>541.42</td>
</tr>
</tbody>
</table>

This includes externally funded projects.

3.1.4 Does the university promote participation of the students in research in the academic programme?

The curriculum at IIIT, Hyderabad is research driven, both at the undergraduate and the postgraduate levels. The bachelors students have the option of joining a research stream at the end of their second year, which places them in one of the research labs/centres for the last two years. They work on research projects for the summers and last four semesters and receive a BTech (Honours) degree on successful completion. Most courses have project components that promote research for all students whether in B.Tech or B.Tech (Honours).
The institute and centres organize a large number of seminars and conferences. They also host several visitors who are reputed nationally and internationally. This provides great exposure to the students and creates conditions to do cutting edge research at the institute itself.

3.1.5 What are the major research facilities developed and are available to faculty and students on the campus?

The institute is totally research focussed and is organized in terms of research centres and labs and not departments. Research facilities are primarily concentrated around these centres. The institute has taken care to provide physical infrastructure such that the faculty and students involved with research are physically proximate. This enhances interactions that is very critical to research. Facilities required for research in the IT area is computers, servers, etc., primarily. These have been provided to faculty members and to every research student. Centralized facilities include library with a rich collection of physical and electronic subscription to journals, abundant bandwidth and internet facilities, etc. The institute has built up large research centres in several areas as listed elsewhere.

3.1.6 Does the university subscribe research journals for reference as per the different departmental requirements?

Yes. Institute is subscribing to e-resources from INDEST-AICTE Consortium (e-Journals of IEL, ACM Digital Library, Science Direct, Springer and ASCE).

3.1.7 Does the university extend recognition to National institutions that provide research training leading to research degrees?

We have an external registration programme for PhD students from national labs as well as R&D labs of industry of repute, with an internal guide from IIIT-H.

3.2 Research and Publication Output

3.2.1 Give details of the ongoing minor and major projects?

See Annexure – A which lists 101 of sponsored projects.

3.2.2 Does the university have research funding from the Government, Industry, NGO or International agencies? Give details

Yes. Annexure - B

3.2.3 Does the University have research students currently registered for Ph.D?

Yes. Currently 107 students have registered for PhD programme in various programmes of which 87 are full time.

3.2.4 Does the University provide fellowship/scholarship to research scholars?

Yes.

Fellowships to the research students of the MS/PhD programmes have two components: Tuition Support and Stipend. Either or both could be given to a research
student. The tuition support can be from a funded project or from the institute. A student may also pay the fees from their own funds. Various mixes of these are also possible.

Institute Fellowship provides both tuition support and monthly stipend for the duration of the fellowship. Partial Fellowship provides only the tuition support.

Every single student in MS and PhD program is supported by fellowships.

**Academic Stages of Research Students:**

**MS Students:**

L1: Join with a BTech/MCA/MSc
L2: Join with Masters in CS/ECE (relevant area) or BTech (Hons) from IIIT-H

**Dual-Degree MS Students:**

L2: Fifth year of study after research background requirements.

**PhD Students:**

L1: Join with a BTech/MCA/MSc.
L2: Join with Masters in CS/ECE (relevant area)
L2: One year after attaining L1
L3: Join with a BTech (Hons) from IIIT
L3: One year after joining/attaining at L2
L4: Complete breadth qualifiers or RBC
L5: Complete dissertation proposal

**RExP Students:**

L3: Join with honours/MS/etc.
L4: Complete breadth qualifiers or RBC
L5: Complete dissertation proposal

**Stage-Salary:**

The default stipend amounts for each academic stage of the research student are fixed as follows from 1.9.2010.

L1: Rs 4500 per month
L2: Rs 7500 p.m.
L3: Rs 10000 p.m.
L4: Rs 12000 p.m.
L5: Rs 14000 p.m.

**3.2.5 Does the University have post-doctoral fellows currently working in the institution?**

No
3.2.6  Give the highlights of the collaborative research done by the faculty

Since 2004, in collaboration with Media Lab Asia, the faculty of the institute are involved to build an IT-based personalized and scalable agro-advisory system called e-Sagu with an aim to improve farm productivity, profitability and sustainability by delivering quality personalized (farm-specific) agro-expert advice in a timely manner to each farm at the farmer’s door-steps. So far, we have developed e-Sagu and operationalized it in 300 villages covering six districts for 50 agriculture crops besides fish and prawn.

Since 2006, Institute is part of 5 major national collaborative projects in language technology from Dept of IT, Govt. of India. These are Indian Language Machine Translation (ILMT), English to Indian Language Machine Translation, Cross-lingual Information Access, Optical Character Recognition and online Handwriting Recognition. Each one has 6-11 institutions and IIIT-H is playing a crucial role in each one of these projects in national technology development.

Since 2008-09, Institute has joined three more consortia projects on Sanskrit to Hindi Machine Translation, Speech Synthesis, and Speech Recognition.

3.2.7  What research awards and patents were received by the faculty during the last five years?

Awards receive by the faculty:

- Prof. Rajeev Sangal – Fellow of Indian National Academy of Engineering (conferred October 2009).
- Dr. Deva Priyakumar - Young Scientist Research Award 2009
- Prof. PJ Narayanan – CUDA Faculty Fellow (2008)
- Prof P Krishna Reddy - The Fellow of Manthan Award: The e-Content Pathbreakers; 2007
- Dr. Vasudeva Varma - AOL Research Faculty Award 2007
- Dr. Mohammed Zafar Ali - INAE Young Engineer Award 2006

Details of patents applied by faculty:

1. Title: “Method for on-site analysis (e-Sagu)” International application no. PCT/IN 2007/00029
   Filing date: 17 July 2007;
   Inventor: Prof. P Krishna Reddy
   Status: Under Review (PCT application filed and received the search report).

2. Title: Combined Localization, Fusion, Routing in Wireless Sensors Networks
   Application No: 1097/CHE/2008
   Filing Date: 05/05/2008

3. Title: A Framework for Natural Language Processing
   Application No: PCT/IB 2008/000018
   Filing Date: 12/01/2008
   Inventor: Prof. Rajeev Sangal

4. Title: Energy Saver Device for Air Conditioner attached to the Motion Sensor
3.2.8 Are there Research papers published in refereed journals periodically, by the faculty? If yes, specify.

Research publications: (For the last 5 years)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>International journals</td>
<td>198</td>
</tr>
<tr>
<td>National journals – refereed papers</td>
<td>88</td>
</tr>
<tr>
<td>University journal</td>
<td>7</td>
</tr>
<tr>
<td>Books</td>
<td>29</td>
</tr>
<tr>
<td>Abstracts</td>
<td>90</td>
</tr>
<tr>
<td>National Conferences</td>
<td>765</td>
</tr>
<tr>
<td>International Conferences</td>
<td></td>
</tr>
<tr>
<td>Any other (specify)</td>
<td>78</td>
</tr>
</tbody>
</table>

3.2.9 Give the list of publications by faculty members
a. Books
b. Research papers
c. Abstracts
d. Proceedings
e. Theses etc.,

<table>
<thead>
<tr>
<th>Year</th>
<th>Conferences</th>
<th>Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>57</td>
<td>9</td>
</tr>
<tr>
<td>2006</td>
<td>138</td>
<td>5</td>
</tr>
<tr>
<td>2007</td>
<td>175</td>
<td>5</td>
</tr>
<tr>
<td>2008</td>
<td>232</td>
<td>3</td>
</tr>
<tr>
<td>2009</td>
<td>140</td>
<td>8</td>
</tr>
</tbody>
</table>

3.3 Consultancy
3.3.1 List the broad areas of consultancy services provided by the Institution during the last 5 years

Following are the list of broad areas of consultancy services provided by the institute along with direct relationship with industry’s immediate needs.

- Computer Vision
- Data Engineering / mining
- Language Search
- Speech Synthesis
- Green Buildings
- Structural Engineering
- Power Systems
- Software Engineering
3.3.2 Does the institution publish the expertise available for consultancy services?

Yes.

3.3.3 Give details regarding the nature of consultancy services and revenue generated?

Yes. Annexure-C

3.4 Extension Activities
3.4.1 What outreach programmes are organized by the institution? How are they integrated with the academic curricula?

Outreach Division of IIIT-H in consultation with research centres/laboratories works out the following outreach programmes for benefit of the students community as well as other institutions including industry:-

a) Distinguished Lectures by renowned International/National researchers in all related areas to the research centres in IIIT-H.

b) International/National conferences: A year-wise detailed program for various International/National conferences on the current issues and solutions in the area of Computer applications are planned in consultation with International bodies and conducted with large international research participation.

c) There has been tremendous amount of learning by the student community from IIIT-H's extension programs by interacting with International specialists and trying to workout solution for improving the quality of life of local population. Some of the recent programs which had tremendous impact include:

- International Joint conference on Artificial Intelligence (Jan 2007)
- International Joint conference on Natural Language Processing (Jan 2008)
- International Conference Distributed Computing and Networks (Jan 2009)
- International Conference on Software Education, Engineers and training (Feb 2009)
- Excitement of Research (ExoR), R&D Showcase and Robocamp as annual events, bring in a large population from academia, industry and government.

d) IIIT-H has active association with professional bodies like IEEE, ACM and CSI and various joint programmes are offered.

e) As a part of DIT initiative, Centre for Education Training and Learning has a major initiative where teaching faculty from various engineering colleges are trained during their summer vacations and necessary followup on newer technology of learning by doing is shared.

f) Specific Industry-oriented program covering the latest techniques for improving software projects and their applications are taken in collaboration with International renowned authority particularly, from CMU, USA.
g) Annual academic events of R&D Showcase and Excitement of Research (ExoR) focussing on 3rd and 4th year engineering students from all engg. colleges from different parts of the country and sharing the IIIT-H model including the research projects for their benefits. Industry leaders are also invited to see the research work at IIIT-H research Centres.) IIIT-H encourages visits from International renowned institutions with their specialists to share their experiences thereby benefiting our research centers for undertaking relevant research. Regular Workshops/Seminars are organized to share results of our research work with leading international schools like CMU.

h) IIIT-H has arrangements with leading International academic institutions like CMU, University of Pennsylvania, Colorado University, Columbia University, University of Washington, University of Massachusetts, RICE University and University of Torino Italy wherein the research students community work on joint research projects and have options to work at both the places.

i) IIIT-H has been training a few hundred mentors each year for Rajiv Gandhi University of Knowledge Technologies (RGUKT). (This is a new university set up by AP Govt. for rural students.)

j) IIIT-H is running a large program to train engineering college teachers and providing them with e-learning material

Items (a) to (h) are integrated with research programs and course work, and items (i) and (j) are integrated with MSIT from where it draws its teaching assistants and mentor trainers.

3.4.2 How does the university promote university-neighborhood network in which students acquire training, which contribute to sustained community development?

IIIT-H is part of the knowledge hub in Gachibowli, with active association with University of Hyderabad, Indian School of Business and various industry R&D centres including CMC, TCS, Infosys, Wipro and Microsoft. For various activities mentioned in 3.4.1, all neighboring institutions are regularly invited to share the various activities and thereby contribute sustained community development. IIIT-H students are regular participants to various training and community activities being organized by all neighboring institutions forming part of Gachibowli Knowledge Hub.

Under Humanities projects a few students have also undertaken studies on nearby villages.

Asha Kiran, a school for the children of workers is run at IIIT-H, by student volunteers.

A strong program in Human Values at IIIT-H promotes thoughtfulness and contemplation among students regarding their own thoughts and feelings, sensitivity in their relationships, societal awareness and concern for nature. It is also offered to faculty from other colleges, NGOs, common folk, etc.
3.4.3 How does the institution promote the participation of the students and faculty in extension activities of NSS, NCC, YRC and other NGOs? How often and in what roles are they involved?

With the vibrant student population of over 1200, the students are encouraged thru Students Life Committee (SLC) to take part in various community extension activities in collaboration with NGOs and other organizations. For example, during the elections student community worked with professionals in software industry to promote awareness for exercising the citizen right of franchise. During calamities like floods, earthquakes, IIIT-H student community has visited the affecting areas and contributed in helping the affected population. With the current issue of global warming and climate change, necessary efforts are being made by IIIT-H student and faculty to ensure that much needed awareness is created in and around IIIT-H campus including the software industry. Measures are of course taken within the campus to curb waste of electricity, water and food and reduce plastic.

3.4.4 Is there any research or extension work to ensure social justice and to empower under-privileged sections in particular, women and children?

Related EnhanceEdu work:

1. Training faculty and students from rural engineering colleges as part of “Enhancing quality of IT education in engineering colleges". Presently working with 15 engineering colleges. Total of 67 faculty and 300+ students have been trained. These 15 colleges are distributed in the following districts: (Prakasam -2, Nalgonda-1, Guntur-1, Karimnagar-2, Khammam-1, Kadapa-1, Warangal-1, Medak-2, Rangareddy-4)

2. Conducting workshops on open source tools in order to improve the productivity of the faculty and students of engineering colleges. Faculty and the students at the rural colleges are exposed to these productivity enhancement tools. They are being involved even after training to use the tools for their own work and projects.

3. Involving orphan children from SOS village during the time of R&D showcase 2009. Around 30 children have visited our lab and we have engaged with them in career development discussions and what possibilities lay in IT. They enjoyed the visit and looking at learning Math and English thru interesting games and activities, and visiting the Robotics lab and the IIIT-H Banyan tree.

4. At R&D Showcase 2010, we again invited the SOS village orphan children (from class 5th to 8th) They enjoyed the visit by playing puzzle games helped by student volunteers, revisiting the Banyan tree, having lunch, taking fun some quizzes and also discussing on scope for their future. We will be interacting with them again this year providing more guidance.

5. Training 300 “mentors" for Rajiv Gandhi University of Knowledge Technologies (RGUKT). This program offers class 11 & 12 and engineering courses to the top five rural students from each mandal of Andhra Pradesh. There are 3 campuses and the annual intake is 6000 students (2000 students per campus).
6. Conducting “Jeevan Vidya” shivirs and short workshops periodically. These are open to all and they help in increasing awareness of reaching social justice through harmony in self, family, society and nature.

7. Several centers of IIIT-H have engaged in extension activities to empower underprivileged sections especially women and children like:
   a. LTRC developed a Text to Speech System (TTS) for underprivileged people - visually challenged students.
   b. E-Sagu is conducting programs that provide agricultural advice to farmers. It also conducts several awareness programs in rural areas like introducing technology in farming, etc. As per the statistics, women farmers got the maximum benefit through this program.
   c. CITE develops tools for science and maths education for students who might not have access to quality resources. A large number of teachers from AP Govt. schools and from Navodaya schools have been trained in using virtual lab and other IT tools in education. Also we study the cognitive process of children with Autism & dyslexia and try to develop assistive systems and educational tools specially catered to them.

8. Department of Earthquake, Center for building sciences, CCNSB are doing several research projects as part of social responsibility.
   a. EERC has developed a CD for disaster preparedness related to earthquake disasters. It has developed several models keeping school education as focus. Many programs have been conducted regarding awareness in schools.

3.4.5 What is the impact of the institution’s extension programmes, on the community? Specify.

Community and Social Impact

3.5 Collaborations
3.5.1 How many linkages does the institution have, for research and extension?

We have a number of links with other universities and industries. The major ones are listed below.

3.5.2 List the organizations and the nature of linkage and expected outcomes.

1. University of Pennsylvania
2. Carnegie Mellon University
3. Colorado University
4. Columbia University
5. University of Washington
6. University of Massachusetts
7. RICE University
8. University of Torino, Italy
9. Microsoft Research
10. IIT, Delhi
11. IIT, Bombay
12. Indian Institute of Science, Bangalore
13. GE John Welch Technology Centre, Bangalore
14. L V Prasad Eye Hospital, Hyderabad
15. Aravind Eye Clinic, Madurai

3.5.3 How does the linkage promote

a. Curriculum development

We have developed several courses in collaboration with Carnegie Mellon. Courses on Medical image processing are co-taught with the GE group. One collaboration with IIT, Delhi is on the development of virtual laboratories for engineering education.

b. Internship

Our students have interned in Microsoft Research, CMU, UPenn, and GE, among many other places.

c. On-the-job training

This has been mostly as internships.

d. Faculty exchange and development

Faculty from Carnegie Mellon University, University of Pennsylvania, Colorado University, Columbia University, University of Washington, University of Massachusetts, Rice University and University of Torino Italy have been involved with the research and have visited the institute. Our faculty have visited these institutions as well as Microsoft Research for upwards of 2 months at a time.

e. Research

Research is the prime motivator for these collaborations. We have developed several solutions for retinal image processing in collaboration with the LV Prasad hospital. Work on diabetic retinopathy may start with Aravind in future. We work on research consortia with IIT, Delhi in OCR development, IISc on Online Handwriting Recognizer development, and with IISc, IITB and IIT KGP on Machine Translation.

f. Consultancy

Consultancy has not been a major focus of such collaboration.

g. Extension

We have worked with Microsoft Research and Dept of IT, Govt of India towards reaching out to the faculty and students of engineering colleges. We work with several corporates to provide part-time post graduate degree to their employees, following exactly the same curriculum and standards as our full time programmes.
h. Publication

Several joint publications with CMU, University of Penn, Columbia University, Colorado University, University of Washington and University of Massachusetts and AT&T have appeared in recent years.

i. Student Placement

The collaborations have helped place our students in industrial R&D Labs. Such as Microsoft Research and GE JFWTC, along with many startups.

3.6 Best Practices in Research, Consultancy and Extension

3.6.1. Describe the best practices in research, consultancy and extension with reference to promotion of research / publication output / consultancy and extension activities / collaborations?

The institute has adopted high standards for research and has made research the centre of all our activities. Our research pushes the frontiers of theory or practice as well connects with the users in the society and the industry.

a) Research is emphasized even at the bachelors levels. UG students have the option to join the honours programme that gives them the opportunity to work on a research area for the last 2 years of their stay at the institute. A dual-degree option enables those students to complete a research thesis leading to the MS by Research degree in 5 years.

b) IIIT, Hyderabad encourages publications by the faculty and students: both research students and UG students. Publications are expected to be in influential journals and conferences. Conferences are judged by their track record. The institute encourage publications only in conferences of class A or B. We also encourage patenting of research ideas and applying them to industry through consultancy assignments.

c) Transfer of the know-how and the technology from the research labs to the field is an essential element of the activities of the institute. The institute work directly with the industry and governmental organizations to achieve this. It also has an active entrepreneurship and incubation programme. Several start up companies are being incubated at the institute.

d) The institute has active collaboration programmes with several groups from the academia, the industry, and the government sector. Research groups are part of large consortium projects involving several IITs and other universities within the country. The institute also has research collaborations with over half a dozen top universities in the world. Joint research work also takes place with researchers from industry like Microsoft, IBM, TCS, and Infosys. Active research collaborations with several DRDO laboratories, BARC, and ISRO are happening at the institute.

e) The institute has an active research outreach programme. This involves conducting or hosting workshops and conferences of national and international importance, short courses, as well as events like the workshop on the Excitement of Research and the R&D showcase that are held every year. These bring several hundred outsiders to the institute from academia, industry, and the government sector.
Criterion IV: Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 How well endowed is the university in terms of physical infrastructure? (classroom, administrative buildings, transport, water, power supply, etc., to run the academic programme) Enclose the master plan of the university campus indicating the existing building and the projected expansion in the future

IIIT, Hyderabad is well endowed in terms of physical infrastructure. An extent of 66 acres of land is in its possession wherein all infrastructure facilities like buildings, internal roads, transport, water supply and drainage facilities, street lighting, generator back up etc., are available. To run the academic programmes, sufficient number of well equipped class rooms, labs, library, common rooms etc., are available in the existing buildings in a total built up academic area of 15,616 Sq. Mts in the campus.

A copy of the master plan of the university campus indicating the existing buildings and the projected expansion in the future is enclosed herewith. **Annexure - D**

4.1.2 What are the infrastructure facilities available for

<table>
<thead>
<tr>
<th>a) Academic activities</th>
<th>No.s</th>
<th>Area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Class Rooms &amp; Tutorial Halls:</td>
<td>18 Nos.</td>
<td>2395 Sq. Mts.</td>
</tr>
<tr>
<td>iv) Labs &amp; work shops:</td>
<td>20 Nos.</td>
<td>2767 Sq. Mts.</td>
</tr>
</tbody>
</table>

| b) Co-curricular activities | |
|-----------------------------|------|--------|
| iii) Yoga Hall. | 1 No. | 195 Sq. Mts. |
| iv) Open air stage. | 1 No. | 2.05 Acres |

| c) Sports | |
|-----------|------|--------|
| ii) Foot Ball ground: | 1 No. | 2.13 Acres |
| iii) Basket Ball Court: | 1 No. | 500 Sq. Mts. |
| iv) Volley Ball Court. | 1 No. | 500 Sq. Mts. |
| v) Ball Badminton Courts. | 2 Nos. | 500 Sq. Mts. |

| d) Guest House: | 4 Suits | 1124 Sq. Mts. |
| e) Hostels: | 3 No.s | 32,797 Sq. Mts. |
4.1.3 Has the institution augmented the infrastructure to keep pace with academic growth? If yes, specify the facilities and the amount spent during the last five years.

The institution augmented the infrastructure to keep pace with academic growth as per master plan. The following amounts were spent during the last 5 years for infrastructure facilities including maintenance.

(All amounts in Rs. Lakhs)

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount spent for capital works</th>
<th>Amount spent for Repairs &amp; Mtc.</th>
<th>Total amount spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>139.94</td>
<td>16.51</td>
<td>156.45</td>
</tr>
<tr>
<td>2006-07</td>
<td>142.21</td>
<td>26.61</td>
<td>168.82</td>
</tr>
<tr>
<td>2007-08</td>
<td>655.41</td>
<td>38.70</td>
<td>694.11</td>
</tr>
<tr>
<td>2008-09</td>
<td>334.15</td>
<td>50.64</td>
<td>384.79</td>
</tr>
<tr>
<td>2009-10</td>
<td>372.21</td>
<td>53.21</td>
<td>425.42</td>
</tr>
</tbody>
</table>

4.1.4 Has the institution provided facilities like common room, wash/rest room for women students and staff?

Yes. The institution provides facilities like common room, wash/rest room for women students and staff in the campus buildings.

4.2 Maintenance of Infrastructure

4.2.1 Budget allocation for the year 2009-10 for the maintenance of:

a) Land: Rs.14.00 L
   i) Campus greenery maintenance and gardening. .. Rs. 9.00 L
   ii) Campus beautification. .. 5.00 L

   ----------------
   Rs.14.00 L
   ----------------

b) Buildings: Rs.56.00 L
   i) Power Station Maintenance. .. Rs. 8.00 L
   ii) Water supply & Elec. Installations mtc. .. 11.00 L
   iii) Hostels & messes maintenance. .. 13.50 L
   iv) Painting works. .. 6.00 L
   v) Plumbing works. .. 5.00 L
   vi) Civil works. .. 5.00 L
   vii) Septic tanks & OHTs cleaning. .. 2.00 L
   viii) Server Room Elec. Wiring & repairs .. 5.50 L

   ----------------
   Rs.56.00 L
   ----------------

c) Furniture: Class rooms & Lab chairs & tables repairs. Rs. 4.00 L

d) Equipment: Rs.19.25 L
   i) UPS maintenance: .. Rs. 10.00 L
   ii) LCD Projectors maintenance: .. 6.25 L
   iii) Airconditioners maintenance: .. 6.25 L
iv) Xerox, Resograph, EPABX maintenance. .. 2.00 L  
v) Water Collers & Aquaguards. .. 1.05 L  

\[ \text{Rs.19.25 L} \]

<table>
<thead>
<tr>
<th>e) Computers:</th>
<th>Rs.23.81 L</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Repairs of computer labs. .. Rs. 2.00 L</td>
<td></td>
</tr>
<tr>
<td>ii) Computer consumables and peripherals. .. 11.81L</td>
<td></td>
</tr>
<tr>
<td>iii) Networking switches. .. 10.00 L</td>
<td></td>
</tr>
</tbody>
</table>

\[ \text{Rs.23.81 L} \]

Total Budget Provision for Mtc. of infrastructure during 2009-10. \[ \text{Rs.117.06 Lakhs} \]

(This does not include the man power cost incurred in outsourced services.)

4.2.2 How is the budget optimally allocated and utilized?

Budget is prepared looking at the actual expenditure incurred during preceding year plus 10% extra towards price escalation. However, expenditure is done looking at actual needs.

4.2.3 Are there staff appointed for maintenance and repair? If not, how are the infrastructure facilities, services and equipment maintained?

The entire infrastructure, services and equipment are maintained by outsourcing services only. We have only the managerial staff to oversee the work.

4.2.4 How is the infrastructure optimally used?

The available total campus infrastructure is optimally used to suit the existing demand and day to day requirements through outsourcing services and efficient supervision.

4.3 Library as Learning Resource
4.3.1 How does the library ensure access and use of security materials?

For expensive item such as journal Back volume, periodicals, CD’s etc. the policy is to issue those items by retaining the ID card of the student within. The students need to return that item with 24 hours and collect their ID card from Library. (For all other materials, we follow open access racks.)

Apart from this we have implemented security procedures based on hand-used checks and traditional check point system to avoid misuse.

4.3.2 What are the facilities available in the Library? (Computers, Internet, Reprographic facilities etc.,)

We are providing facilities like Online Public Access Catalogue (OPAC) so that, any one logged on Campus can access the Library resources and Online Journals.
access i.e., IEEE, ACM, Springer, LNCS, Science Direct, ASCE, etc., and also provided reprographic facilities to the users.

4.3.3 How do the Library collections cater to the needs of the users?

The Library has rich collection of Science, Technology, Engineering, Humanities, Social Sciences, Management and Literature etc., Text and Reference Books has been catering to the information needs of the faculty members, students, and research scholars. Every day around 230 students visit the Library and the total registered faculty and students are around 1200.

4.3.4 How does the Library ensure purchase and use of current titles, important journals and other reading materials?

We procure the books by conducting the exhibitions, by displaying publisher’s catalogue and forwarding the mails received from the publishers about new upcoming titles to faculty and also through recommendations from faculty and students. In regard to the journals we are subscribing the new journals as per the request from the faculty.

The library committee of faculty members from various research centres and Dean R & D oversees the procurement and budget allocation to centres.

4.3.5 If the Library has archives to what extent, is it used by the students, faculty and researchers?

At present we preserving only print form materials i.e. thesis and dissertations of the students and back issue of print journals. We are planning to implement Digital Archives.

4.3.6 How are On-line Internet Services in the Library used by the students and faculty? Specify the hours and frequency of use?

We don’t have any time limitations to access Internet resources i.e. On-line e-resources. Usage statistics for recent years are enclosed.

4.3.7 Are the Library services computerized? Does the institution make use of INFLIBNET / DELNET / IUC facilities? If yes, give details?

We have computerized all the house keeping operations with the LibSys Software supplied by LIBSYS Corporation, Gurgaon,

4.3.8 For how many days is the Library kept open in an academic year? How many hours is the Library kept open per day?

Our Library is open all the 365 days except 15th August and 26th January. The Library functions from 9.00 am to 12.00 hrs mid night on all working days, and from 10 AM to 5:00 PM on holidays.

4.3.9 Does the Library have an advisory committee? What the its functions?

Yes, Committee finalizes and orders books and journals subscriptions. It is also involved in finalizing the library budget every year for the various centres and programs.
4.3.10 Amount of money spent for new books, journals during the last five years?

<table>
<thead>
<tr>
<th>Year</th>
<th>Books (Rs.)</th>
<th>Journals (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>35,00,000</td>
<td>14,00,000</td>
</tr>
<tr>
<td>2006-07</td>
<td>17,45,000</td>
<td>17,50,000</td>
</tr>
<tr>
<td>2007-08</td>
<td>18,10,000</td>
<td>25,00,000</td>
</tr>
<tr>
<td>2008-09</td>
<td>12,89,000</td>
<td>32,00,000</td>
</tr>
<tr>
<td>2009-10</td>
<td>6,00,000</td>
<td>32,70,000</td>
</tr>
</tbody>
</table>

4.3.11 How does the Library motivate students / teachers to read existing and new arrivals?

Every month we send the New Arrival list to the faculty and also display the newly arrived books in a separate section in the library.

4.3.12 What are the special facilities offered by the Library to the visually challenged and physically challenged person? How are they used?

We do not have the facility at present. Also we have been seeing negligible or almost nil enrolment of such challenged students in past years. We will look into the installation of such software in future depending on the need.

4.3.13 List the infrastructural development of the Library over the last five years?

Library has procured a new server exclusively for Library resource and upgraded our existing library package LIBSYS by increasing the number of entries to 80,000 from 20,000. A number of new racks have also been added.

4.4 ICT as Learning Resources
4.4.1 How is the computer facility extended to all faculty and students?

Yes. Every student has easy access to ICT which includes a desktop computer connected on intranet with internet access.

4.4.2 How are the faculty facilitated to prepare computer aided teaching/learning materials? What are the facilities available in the university for such efforts?

Yes. Every faculty has a desktop and/or laptop.

4.4.3 Is there a central computing facility? If yes, how favorable are its timings, access and cost to both the students and faculty?

24 hours

4.4.4 How are the computers and its accessories maintained in the department?

Dedicated team of sys admins and student sys administrators.
4.4.5 What is the output of the various departments in developing ICT packages for their discipline?

Very good. For example, shallow parsers for Natural Language Processing, Spatial Informatics, Graphics as well as digital courses for their area.

4.5 Other Facilities

4.5.1 How many students stay in the hostel? How many rooms are there in the Hostel? Is the accommodation sufficient to meet the demand?

100% of full time students stay in hostel because staying in the hostel is compulsory (except for married students).

a) 182 students in Girls Hostel & 959 students in Boys Hostels i.e. a total number 1141 students stay in both the hostels.

b) 192 rooms (single rooms) for girls, 648 rooms (single rooms) and 224 double-occupancy rooms (which can accommodate 448 students) for boys are available.

c) The above rooms can accommodate total 192 Girls and 1096 Boys thus it meets the current demand up to 1288 students.

4.5.2 What facilities are provided in the hostel?

a) Amenities:

- Sports Room for TT, Caroms & Shuttle Court in respective hostels.

- Visitor’s Lounge for student guests.

- Guest rooms in respective hostels to provide accommodation for parents/guests.

- TV Room in each hostel for students entertainment

b) Utilities & Facilities:

I Common Facilities:

- Hot-water Facility (Geyser) in hostels bathrooms. Solar hot water System under process.

- Water Coolers with Aqua Guards installed in each floor of all the hostels.

- Laundry & clothes washing facility available in each hostel.

- STD Booth & Stationery shop available in hostel premises.

- Coffee Vending Machine provided in each hostel premises.
SBH Extension Counter & ATM are available in the campus for Students to handle day-to-day money transactions.

Hostel Maintenance Staff (Electrical & Plumbing), House-keeping Staff, Carpenter are employed on out-sourcing to ensure smooth living conditions in student hostels.

A Warden Committee consisting 6 Male Wardens and 2 Lady Wardens duly assisted by 3 Care Takers looks after Hostel Administration in the Campus.

II Mess & Canteen:

One each of North and South Mess (out-sourced) operates in Old Boys Hostel and two Messes function in New Boys Hostel under direct supervision of IIIT-H (Yuktahaar Mess & North-cum-South Menu Mess). All the students have option to eat any meal in the day in any of the 4 Messes which is exercised through Mess Portals 24-hours in advance.

Besides the Messes, Canteen functions from 10 AM – 01 AM and serves refreshments (fast food, Veg & Non-veg Snacks, bakery items, drinks & fruit juices) to students. A Coffee shop is also available to cater to students needs.

All Mess & Canteen activities are closely monitored by Mess Warden & Students Mess Administration Committee.

4.5.3 What are the Facilities provided by the Health Centre?

a) A health Centre is available in the hostel (both for Girls & Boys) , in which Two Allopathic Doctors (Male Doctor & Lady Doctor) visit Mon-Saturday in a week. Also, a Homeopathic and Ayurvedic Doctors will be offering services weekly twice to the students.

b) Medicines are available for immediate treatment in the health Centre/

c) All the Students are covered by Hospitalization Universal Health Policy to a limit of Rs.30,000/- p.a. and accident benefit of Rs.1,00,000/- from the New India Assurance Company.

d) An ambulance is also available in the campus round the clock to shift the student in case of emergency sickness.

4.5.4 What are the physical and infrastructure facilities available for the sports and physical education?

Institute has 1 cemented Basket Ball court, 2 volley ball courts, 1 throw ball court, 1 foot ball field not full size, 1 hockey field not full size and indoor games facilities for table tennis, carroms and chess besides Gymnasium for both men and women.
4.5.5 How does the institution ensure participation of women in intra and inter institution sports competitions?

Institute encourages women in games and sports. They do take part in Inter House competitions, Inter Batch competitions and Inter college tournaments local and non local.

4.5.6 Does the institution have a workshop / instrumentation centre? If yes, what are the physical and infrastructure facilities available in the centre?

Institute has a resident inventor heading Engineering Technology Innovation Centre (ENTICE). The centre has developed many devices useful for rural areas and city households. Students have an opportunity to see and learn what goes on in non-IT domains. They can also register for project courses related to ENTICE.

4.6 Best Practices in the Development of Infrastructure and Learning Resources

4.6.1 Describe the best practices for the development of infrastructure and learning resource adopted by the college with reference to physical facilities and its maintenance / library as a learning resource / ICT as learning resource and other facilities to create learning ambience?

The institute, being an information technology focused institute, has invested substantially in portals to enable smooth functioning of academic and non-academic activities. These portals are built from scratch using available free technologies by active student participation under faculty guidance. The ISAS portal is used for student registration and keeping track of the academic progress of the students. The courses portal is used for smooth functioning of the course delivery, management and grading. The mess portal is used to provide flexibility of choice among the five messes to the student along with book-keeping, and intimating the mess contractor about the number of students who would eat the next meal at their mess. We expect to release some of these portals for use by other institutes.

The institute has focused on environmental enrichment, and has a vegetable garden, and spices garden. The fruits and vegetables from the garden are sent to messes for student consumption. Further initiatives to reduce plastic wastage and water treatment plant are under works.
Criterion V: Student Support and Progression

5.1 Student Progression

5.1.1 What is the student strength of the institution for the current academic year? Give the data gender-wise, state-wise and nationality-wise, along with analysis and comments.

Student strength of the institution for the current academic year 2009-10 is 1206. Details are at Annexure - E

5.1.2 Details of the last two batches of students and their profile (SC/ST, OBC, BC, General etc.) prefixing the Socio-economic profiles also.

<table>
<thead>
<tr>
<th>Year / Caste</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>General</th>
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<tr>
<td>2009</td>
<td>1</td>
<td>-</td>
<td>20</td>
<td>227</td>
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</tbody>
</table>

5.1.3 What percentage of the students on an average progress to further studies? Give details for the last five years.

Approximately 15% of students go for further studies. We don’t keep records with names and university.

5.1.4 What is the dropout rate for the different years after admission?

Dropout rates in percentage for the last two years are given below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Disciplines</th>
<th>2008</th>
<th>2009</th>
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</thead>
<tbody>
<tr>
<td>UG</td>
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<td>MS/PhD</td>
<td>13.33</td>
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</table>

5.1.5 What proportions of the graduating students have been employed for the last three years? Provide placement record for the last three years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Discipline</th>
<th>Total no. of students passed out (last 3 years)</th>
<th>Total no. of students placed through placement cell (last 3 years)</th>
</tr>
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<tbody>
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<td>2007-2010</td>
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<td>269</td>
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<td>B.Tech ECE</td>
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<td>M.Tech CASE</td>
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<tr>
<td></td>
<td>M.Tech VLSI &amp; ES</td>
<td>67</td>
<td>67</td>
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<tr>
<td></td>
<td>M.Tech Bioinformatics</td>
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<td>M.Tech Computational Linguistics</td>
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</table>
Placement details for the last three years are given below:

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<th>S.No.</th>
<th>Year</th>
<th>Name the Company / Industry</th>
<th>No. of Students</th>
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**2008-09**

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**5.1.6 How many students appeared/ qualified in UGC-CSIR-NET, SLET, IAS, GATE/ CAT/GRE/TOFEL/GMAT/Central/State services, etc. through Competitive Examinations. (last two years)**

Since the students don’t apply for the above exams through the Institute, we don’t have any records.
5.2 Student Support
5.2.1 Does the institution publish its updated prospectus and handbooks annually? If yes, what are the information contents disseminated to students?

Yes. Institute gives academic regulations, curricula, hostel rules, student support etc. to all 1st year students. This information is also kept on the intranet website. Moreover, the brochure contains information about faculty, academic programmes, research centres and campus life.

5.2.2 Does the institution provide financial aid to students? If yes, specify the type and number of scholarships/ free ships given to the students last year?

Yes. The Institute provide Teaching Assistantships to the students who work as TAs for the courses. There are also a limited number of scholarships for actually needy students from the alumni fund. Also merit awards are given to students every year in the form of books who shows excellence in their academics.

The Institute also provides stipend and tuition support to all Research students.

5.2.3 What types of support services are available to overseas students?

The institute has a faculty member in charge of the international students, and conducts programs to learns about the social life and culture in other countries.

5.2.4 What support services are available to SC/ST students?

The institute has mentoring scheme for all students who are not doing well academically and are under probation. Support is also provided to 1st year UG students through human value mentors.

5.2.5 What are the support services made available to differently-abled students?

The institute does not have any special support services wing for differently-abled students.

5.2.6 Does the institution offer placement and counselling services to students?

Yes. The Institute has a placement wing and it functions under the guidance and coordination of a faculty in-charge.

5.2.7 Is there a counselling service for women students?

Yes. A professional Counselor is appointed by the Institute for all students

5.2.8 Does the faculty participate in academic and personal counselling? If yes, how many have participated last year?

Yes. There is a special emphasis on value education and inculcating a sense of responsibility. The students of 1st year UG programme are made into small groups and
each faculty of the Institute takes care of one group of the students to advise and counsel them in their academic as well as life in general.

5.2.9 Has the employment cell encouraged students to be self-employed during the last five years?

The Institute has a Centre for Innovation and Entrepreneurship which help student entrepreneurs take the first steps in bringing their business idea or product to life. The entrepreneurial activity at IIITH has encouraged and incubated 5 companies (startups) in the campus. The cell conducts seminars, conferences and competitions to develop creativity leading to enterprises.

5.2.10 Does the institution have an alumni association? If yes, what are its activities?

Yes. The Institute’s alumni group came into being in 2002 with the graduation of the first batch. Alumni are engaged with the Institute in a variety of ways. They visit the Institute and interact with the current students. They have also contributed money for an alumni fund to support the education of needy students at the Institute. A number of students have benefited from the alumni fund which is growing at a remarkable pace.

5.2.11 List the names of top 10 most renowned Alumni of the university along with their designation?

We are too young to produce 'renowned' alumni.

5.2.12 Are the alumni contributing to the development of the institution? If yes, please specify how?

Yes. They have contributed about Rs 12 lakhs towards education of needy students. They also hold sessions with existing students and brief them on career choices including incubating start up companies.

5.2.13 Does the institution have a grievance redressal cell? If yes, what are its functions?

All student facilities, related to student life on campus, are administered in a transparent manner, with the active involvement of students at all levels. The students are thus involved both in framing policies as well as in implementing the logistics. All students involved in managing the facilities are also members of the Students' Parliament, constituted and run in a democratic fashion by the students.

Individual grievances, which are not resolved locally, or by the Students' Parliament, can be routed through either the Chair, Council of Wardens or the Chair, Students Life Committee. Our students can also, at any point of time, directly take their grievances to the Director.

5.2.14 List the number of grievances redressed during the last two years.

Because of the participatory nature of administration, most *concerns* of students, both individual as well as collective, get resolved at a local level. In general the students are encouraged to think of possible solutions, wherever they face problems.
Whenever feasible, the administration provides full support to the students towards implementation of these solutions. Issues, which require major policy decisions, are automatically referred to the corresponding higher policy making bodies. During the past two years, there have been several problems which have been identified and solved in a participatory manner. Some recent examples are related to *Space for a Music Room*, *Issues related to Smoking and Drinking*, *Room Allotment* etc. all of which stand resolved. However, there has been no recent cases of *articulated* grievances.

5.2.15 Is there a provision for welfare schemes for students? If yes, specify.

Apart from the *Students Activity Fund*, controlled by the Students Parliament, the Institute provides:

1. Loan facilities from Banks
2. Loan from Alumni Fund
3. Medical Insurance

5.2.16 What were the specific measures initiated by the institution to enhance the quality of education with reference to student support and progression?

Alumni Fund has helped in providing scholarship to extremely needy students.

5.2.17 Is there a cell to prevent Sexual Harassment? How effective is the cell? What are the efforts to provide legal literacy to women?

We have such a cell. In addition, the Faculty associated with the Warden's Council and the Students Life Committee maintain close contact with the students. Other Faculty, including the Deans and the Director, are also freely accessible to all students, naturally including girl students. More importantly, the institute is of the view that *Sexual Harassment* is first and foremost a moral issue which can be addressed by educating the whole community, on questions of Human Values. We not only promote a *family like* ambiance in the campus, we also actively engage with the students on the questions of *Human Values* and those of *harmony in relationships*. Such an approach has effectively ruled out incidences of *Sexual Harassment*.

5.3 Student Activities

5.3.1 What are the incentives given to students who are proficient in sports?

1. We present T shirts and Track Suits for the best sports persons in different games.
2. We also present small cash awards for the best players and present mementoes.
3. Best Sportsman and Woman awards will be presented during the Annual Sports Meets and present Mementoes.
4. Certificates and Medals will be provided to the Winners, Runner-up and Third Place holders during the sports meet.
5.3.2 Give details of the participation of the students in sports and the outcome, at the state, regional, national and international levels, during the last five years?

Achievements in the year 2010

1. Organized friendly Basket Ball Match with Sanath Nagar Basket Ball club, Hyderabad, on 12-01-2010 and won with 46-12 score.

2. Organized Friendly Foot Ball Match with BHEL Youth Club on 16-01-2010 and won the match with 1-0 score.

3. Institute’s Table Tennis Team Akhil Vij ug3, Soma Rakesh ug2, Abhishek Grover and Prahal Ghai from ug1 participated in South Zone Inter University Table Tennis Tournament held at Vijayawada from 22nd to 24th January, 2010 and entered quarter finals defeating Dravida university, Mysore University, Karnataka University and lost with JNTU University where AP State no 1 and 2 played.

4. In Table Tennis Men’s Team won 3rd Place in All India Inter Engineering College Tournament organized by VNR VJIET and secured Rs 600/- cash award and mementoes with individual medals and certificates.

5. From 19th to 21st February, 2010 we organized FootSal 2010 as sport event during the Felicity 2010. This had very strong and good response from colleges and clubs. Around 72 teams have been participated. This was sponsored by Indiana Sports, Secunderabad.

6. In Friendly Foot Ball Match with HCU we made draw with 2-2 score. It was enjoyed and played well in their campus.

Achievements in the year 2009

1. Won the ‘7’ a side Foot Ball tournament at Muffkham Jha institute and received Cash Award of Rs 5,000/- and mementoes with trophy under the captaincy of K Rahul.(PG)

2. Won the Second runner up trophy and cash award of Rs 1,000/- from VNR VJIET in All India Inter Engineering Colleges Tournament in Table Tennis Men Section. Winners are Hemant Dingra, Ankit, Anurag tayal, Devender and Akhil Vij.- UGs

3. Won the Runner up Trophy and Cash Award of Rs 1000/- from ICFAI UNIVERSITY Inter Engineering College Table Tennis Tournament in girls section. The participants are Navata and Sunanda - UGs

4. Won the Runner Up Trophy and Cash award of Rs 3,000/-from our Institute in the First A.P.Inter Engineering Colleges Foot Ball Tournament under the captaincy of K Rahul.(PG) organized by IIIT, Hyderabad.

5. Sri K S Kamalakar Won the best player award in the RBR Memorial Badminton Tournament and cash award of Rs 2,000/- at Deepthisri Nagar Indoor Stadium, Hyderabad.
Achievements in the year 2008

1. Won the Inter Engineering Colleges Foot Ball Tournament where 23 institutes participated and received Rs 3,000/- cash award and trophy under the captaincy K Rahul (PG) organized by IIIT, Hyderabad.

2. Won the Inter Engineering Colleges Throw Ball (Women) Tournament where 16 institutes participated and received Rs 2,000/- cash award and trophy under the captaincy of Krishna Manjari (PG), Organized by IIIT, Hyderabad.

3. In the Inter University Table Tennis Tournament held at Vellore institute of technology, Vellore where our institute came upto Quarter Finals under the captaincy of Hemant Dingra-UG

4. Sri K S Kamalakar won the 3rd place and won the cash award of Rs 1,000/- in RBR Memorial Badminton Tournament in Veteran Section.

Achievements in the year 2007

1. Our Institute Foot Ball Team won the ICFAI tournament and won the cash award of Rs 8,000/- and trophy under the captaincy of Gayam Raja – UG.

2. Our Institute Basket Ball Men team won the ICFAI Tournament and won the cash award of Rs 2,500 and trophy under the captaincy of Jitender (MS).

3. Our Institute athletes won the gold and silver medals in the 10k Run organized by Athletic Association, Hyderabad at Lalbahadur stadium, Hyderabad.

4. Our Throw Ball Team (Girls), Cricket Men, Foot Ball, Volley Ball and Basket Ball teams performed very well in the Friendly matches and in the tournaments and brought laurels to the institute.

We started preparing Hockey Team for future tournaments.

5.3.3 How does the institution collect feedback from students for improving the support services?

We have an open environment in which students can approach the authorities at the right level. If that does not work, they are free to go higher.

A weekly slot is provided (Thursday 5:00-6:30 PM) for Faculty Student Interaction Session (FSIS) in which feedback can be given. Many times FSIS is organized around specific topics with a view to collect feedback, discuss or address a grievance.

5.3.4 Does the institution collect feedback from employers? If yes, how is the feedback used? Illustrate the outcome.

Feedback from employers is collected by the placement section. Also when recruiters come to campus, they meet faculty and give their feedback.

The feedback has been so overwhelmingly positive that it has helped reinforce what we have been doing in academics.
5.3.5 Furnish information regarding the participation of students in extra curricular activities and recreational activities?

1. Sports Carnival is being organized for every two months. in which all recreational games have been organized.

2. Sports Council organizes premier leagues in different games like Foot Ball, Cricket, Basket Ball etc.

3. Inter Batch and Inter House activities have been organized every year.

5.4 Best Practices in Student Support and Progression

5.4.1 Describe the Best practices in student support and progression practiced by the college in terms of student progression / student support / activities

Education is not only about academics. It is about creating empowered citizens who can think independently with responsibility. For the past several years we have been addressing this goal by utilizing both curricular as well as extracurricular space. In the curricular space, we have designed humanities courses and humanities projects. Through these, our faculty has been making conscious efforts at drawing student attention towards human values and of participation in a process of relationship building within one’s own family and community, and in the society at large. Apart from ensuring participation of students in sports and cultural activities round the year, the Institute takes the following concrete steps in terms of student progression / student support / activities

a) Human Values: A massive effort has been put with the students related to human values by the institute. Discussions in small groups are used to start thinking relating to one’s life goals, self confidence, relationships in family and in hostel, responsibility towards society and nature. Emphasis is on one’s own ability to decide (and being truly free) for harmony for all. A one-week intense workshop on Jeevan Vidya is conducted as a part of the Human Values course.

b) Every year, the Students' Parliament constitutes a Student mentor network, under guidance of Student Life Committee (SLC) during the first semester for new entrants. We are trying to reach the goal of ‘zero-ragging’ in the campus for newly admitted students.

c) Students’ parliament, formed through a unique micro-democratic process within the student body acts as a decision making body within students. There is a Students Life Committee (SLC) which advises the Parliament and guides the student and helps organize extra curricular activities including cultural and sports.

d) Large number of 'activity' clubs e. g. for 'dance', music', 'magazine', 'literary', 'Campus Green', 'Robotics', 'Programming', 'LUG', 'photography', 'films and film appreciation' etc. have been set up to ensure all round education of the students.

e) The Parliament also organizes 'Batch Trips' every year, sponsored by the Institute, to different places of interest.

f) Participation of students in day-to-day running of hostel, canteen and mess.
g) Regular monitoring of academic progress of students and encouraging student initiatives for helping weak students.

h) The Institute has student branches like ACM, IEEE and CSI under which students can interact with other professionals working in the same areas. Many seminars/events are held for students by these organizations.

k) Special incentives and counseling is provided to students for taking up a research career.

l) Financial support to needy and deserving students is organized by the alumni

m) Compulsory Extra-Curricular Credits for Physical education, including Yoga.
Criterion VI: Governance and Leadership

6.1 Institutional Vision and Leadership

6.1.1 Does the mission statement define the institution’s distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution’s traditions and value orientations, vision for the future etc.?

- To train and educate, at both undergraduate and postgraduate levels, engineers of outstanding ability who can become leaders in the IT industry and profession.
- To carry out advanced research and development in information and software technologies and their societal, scientific, industrial and financial applications.
- To develop a larger humanistic vision of self and society within the Institute and outside.

6.1.2 What are the goals and objectives of the institution? How are they made known to the various stakeholders?

Goals of Institute are prominently written in brochures, websites and other literature of Institute. They are also repeated in various events and functions – big and small. They are also adapted at different levels of functioning of Institute and make known there.

6.1.3 Does the institution have a mission statement and goals reflecting quality? If yes, give details.

Institute does not talk of quality separately. It has to be a part of whatever we do and therefore we talk of excellence.

6.1.4 What measures has the institution taken to translate quality to its various administrative and academic units?

Rather than talking of quality, Institute talks about working as a family. We emphasize working with responsibility with care. This automatically translates to quality and care.

6.1.5 What are the leadership functions of the Head of the Institution? How is the leadership system established in the university?

Leadership functions of the Head of the Institution are the following:

a) Set high goals for the faculty, students and staff and get them to strive for them. (For example, for faculty the goals would be to reach excellence in teaching and research, for students, sincerity and hard work towards learning and academics, and for staff, care towards detail in their work in a congenial environment.)
b) Build an environment of trust, respect and openness which promotes learning, and research with excellent relationship.
c) Develop a sense of ownership for the institution in every single member of the institution whether faculty or student or staff by a structure and inclusive environment that empowers individuals and groups.
d) Keep an eye on developments in science, technology and society and see what role the institution can play.

e) Connect with government, industry and society to protect institutional interest and work for institutional development.

f) Coordinate with different groups and individuals within the institution and design processes with feedback mechanisms for the smooth running of the institution.

Leadership system is established by having a formal structure that places decision making at the right level (for every decision), and by an environment that is inclusive, and congenial.

6.1.6 Is the faculty involved in decision-making? If yes, how?

Faculty is involved in decision making at every level in the institute. All major academic decisions are discussed in Faculty Meetings of all the faculty with open and serious discussion. Faculty hiring is also discussed and decided upon in such meetings. Administrative matters are discussed in Institute Steering Committee (a 15 member committee) and in Faculty Meetings.

6.2 Organizational Arrangements

6.2.1 Give the organizational structure and the details of the statutory bodies?

Organization structure is enclosed at Annexure-F.

Statutory bodies:

- Governing Council
- Academic Council
- Executive Committee
- Finance Committee

6.2.2 Give details of the meetings held, the decisions made, regarding finance, infrastructure, faculty, academic research, extension, linkages and examinations held during the last year.

No. of Governing Council meetings held : 3
No. of Academic Council meetings held : 1 (in 2008)
No. of Faculty meetings held : 7
No. of Finance Committee meetings held : 12
No. of Executive Committee meetings held : We have the Academic Affairs Committee which meets once in a week.

All the major policy decisions of the Institute regarding finance, faculty appointments, infrastructure, administration, new academic programs and approval of the annual budget are taken in the Governing Council meetings which are implemented by the Director of the Institute.

All academic decisions of the Institute are taken in the Academic Council meetings or in the meetings of all faculty members.
6.2.3 How frequently are the meetings of the different statutory bodies held? What are the major outcomes?

The Governing Council meets twice in a year as per the availability in India of Prof. Raj Reddy, Chairman. Prof. Raj Reddy is the Mozah Bint Nasser University Professor of Computer Science and Robotics, Carnegie Mellon University, Pittsburgh.

Academic Council meets once in a year. However, meeting of all faculty members is held twice in a month. Academic Affairs Committee meets once in a week. These meetings discuss all academic related issues like courses, curriculum, almanac, faculty appointments, student affairs etc.

The Finance Committee meets once in a month to discuss issues related to institute finances.

6.2.4 What percentage of the management council’s resolutions are implemented during the last year?

All the decisions of the Governing Council are implemented.

6.2.5 How is the administration decentralized? Illustrate the organization chart.

Director is the Head of the Institution who runs the day-to-day administration. As per the Administrative structure of the Institute, various Committees function and supervise the different sections of administration of the Institute. Each Committee is headed by a faculty member with support of few more faculty as members of the Committee. Major Committees are as follows:

a. Education
   1. UG Committee
   2. PG Committee
   3. PG Admissions Committee

b. Research
   1. Research Centres Coordination
   2. Internal Funding
   3. Student Travel Grants

c. Outreach
   1. Education Outreach Committee
   2. Industry Outreach Committee
   3. Placements Committee
   4. Alumni Affairs Council

d. Student Life
   1. Student Life Committee

e. General Support
   1. Library Committee
   2. Finance Committee
   3. Building Works Committee
   4. Faculty Search Committee
   5. Faculty Appraisal Committee
   6. Staff Performance Review Committee

A Complete list of committees is attached at Annexure - G
6.2.6 Does the institution have an effective internal coordination monitoring mechanism? If yes, specify.

Yes. Coordination is done through faculty meetings and Academic Affairs Committee. (From this year an Institute Steering Committee has been setup for coordination and decision making.)

6.2.7 How many times does the management meet the staff in an academic year? What are the major issues discussed?

At least once in a year. The issues of staff welfare are discussed and streamlined.

a) What are the norms to extend affiliation to a new institution?

Professional Institutions: Arts, Science and Commerce Colleges
Law
Medicine
Engineering
Education
Management
Others

Not applicable

b) What are the procedures for conferring permanent affiliation to a college?

Not Applicable

6.2.8 Does the university have a College Development Council (CDC) or Board of College and University Development (BCUD)? If yes, give the details of its structure and functions.

Not Applicable

6.2.9 How does the university promote ‘autonomous status’ to the affiliated institutions?

Not Applicable

6.3 Strategy Development and Deployment

6.3.1 Does the institution have a perspective plan for institutional development? How are the various constituencies involved in the process of planning?

Institute does planning for its development along six major dimensions

a) Academics – Starting of new programs and strengthening of existing programs
b) Research – Starting of new areas and strengthening in existing areas.
c) Technology transfer – Relating research to needs of industry and society
d) Education Outreach – Reaching out to other engineering colleges, and universities and help in curriculum development, teacher training, digital courseware, etc.
e) Finance
f) Infrastructure

There are committees for each of the above.

a) Academics – Academic Affairs Committee (AAC), All Faculty Meetings
b) Research – AAC, Faculty Meetings
c) Technology transfer – Industry Advisory Committee.
d) Education Outreach – CETLS
e) Finance – Finance Committee
f) Infrastructure – Building Works Committee

Deans Council is also involved on various issues pertaining to the above.

6.3.2 Does the institution follow an academic calendar? How effectively is it prepared?

Yes. Academic Calendar (or Almanac) is prepared for the whole academic year and announced in March / April. Each semester is about 19 weeks long. While preparing the almanac, 42 hours of lectures are ensured in each and every course in a semester excluding public holidays, examinations and student functions. There is a 2 week break during winter and 11 weeks in summer. The almanac is discussed and finalized in Faculty meeting and the same is announced to the students well in advance several months before the start of academic year.

Academic calendar is strictly followed. There is no change, for example, in starting and closing of semester and exams dates.

6.3.3 During the last five years, specify how many plan proposals were initiated/implemented? Give details.

Institute does not receive funds for plan proposals from the government or UGC. However, the following plans related to starting of new programs and new research centres have been initiated and implemented through internal funds:

- Trans-disciplinary dual degree programs
  * B.Tech (CS) and MS (CNSB) – Started 2009
  * B.Tech (CS) and MS (CL) – Started 2009
  * B.Tech (CS) and MS (Humanities) – To start 2010.
- New research centres
  * Computational Natural Sciences and Bioinformatics
  * Exact Humanities
  * Cognitive Science
  * Agricultural & Rural Development
  * Spatial Informatics

6.3.4 What are the mechanisms evolved by the university to meet the developmental needs of the affiliated institutions?

Not applicable.
6.3.5 How often is the functioning of the affiliated institutions inspected and supervised? When was the exercise done last? Give details

Not applicable

6.3.6 Has the University conducted an academic audit of its affiliated colleges? If yes, give details.

Not applicable

6.4 Human Resource Management

6.4.1 How are the staff recruited? Illustrate the process.

The teaching staff (Faculty) are recruited through publicity on internet mailing lists, professional societies, and Institute Web page. The applications received are short listed by the Faculty Search Committee and the faculty candidates are invited for a presentation and one-to-one discussions with faculty in the related areas, the Deans and the Director. Reference letters from candidate's PhD advisor, collaborators and previous employers are obtained. Later this is discussed in Academic Affairs Committee, Faculty Search Committee, and Faculty Meeting for a decision.

For non-teaching staff the recruitment is through open advertisement in leading newspapers followed by written test and personal interview by a committee consisting of 3 to 4 faculty members and Administrative Officer.

6.4.2 How does the University assess the need for staff recruitment?

The institute identifies the area in which it does not have teaching or/and thrust areas of research. The recruitment considers each candidates fit to those requirements for hiring.

The need of non-teaching staff members is assessed mostly depending on the work load of the different wings of the Institute viz., Academic, Admissions, Finance & Accounts, Library, System Administration, Physical Education and Hostel Administration as well as Research Centres.

6.4.3 What percentage of faculty are recruited from other institutions, other states and other countries? Give details

IIIT is a Pan-Indian institution where both faculty and students come from all over India. About 55 % of faculty is from AP and the rest from rest of the country.

6.4.4 What is the ratio of teachers to non-teaching staff?

1.2 : 1

6.4.5 Does the institution have a ‘self – appraisal method’ to evaluate the performance of the faculty in teaching, research and extension programmes? How far has it motivated the teachers?

Yes. The Institute has a self-appraisal to evaluate the yearly performance of the faculty. Self-appraisal form is filled by faculty every year.
The form is filled along four dimensions.

- Teaching
- Research
- Tech Transfer
- Service (to profession, society, and Institute)

Motivation among teachers, primarily comes from inside, not through self-appraisal. (However it might help them orient their outcomes such as paper publications, striving to transfer technology, etc.)

**6.4.6 Does the institution appraise the performance of the teaching staff? If yes, specify.**

Yes. An elaborate (and difficult) process of faculty appraisal is carried out every year. The appraisal is done based on self appraisal and student teaching feedback by a committee of two: Director and a GC member (Prof. Narendra Ahuja of Univ of Illinois, Urbane Champaign) they give a rating and inform the faculty with suggestions to improve their performance in the areas wherever they are found weak. Basing on this, the percentage of annual increment in salary is determined.

**6.4.7 Does the institution appraise the performance of the non-teaching staff? If yes, specify.**

Yes. The self-appraisal of non-teaching staff is collected and reviewed by a Committee. The concerned non-teaching staff member is informed to improve in the areas wherever any deficiencies are noticed. Increments to salary are not tied to appraisal.

**6.4.8 Has there been any study conducted during the last five years by the university/government or by any other external agencies on the functioning of any aspect of academic and administrative management? If yes, give the details of the reports.**

Yes. IIIT-H has been ranked among the **Best 6** Universities in South Asia, in terms of “scholarly papers” on the Internet, in a survey held every three years, by Cybermetric Lab, Spain’s largest public research institution. (Oct 2009).

Check this on [http://www.webometrics.info/top100_continent.asp?cont=S_Asia](http://www.webometrics.info/top100_continent.asp?cont=S_Asia)

The India Today, India’s leading news magazine, named IIIT-H as one of the 25 Extraordinary Individuals and Institutions that have transformed education in India. (July 27, 2009)

IIIT-H, in its twelfth year in 2010, was ranked among top 5 overall and among top 3 in campus recruitment, among all technology schools in the country, by Dataquest-IDC's India’s Top Engineering Colleges Survey 2010.

**Dataquest’s All-India Rankings of IIIT-H over Past Five Years**

- 2010 --- Top 5 overall and top 3 on placement
- 2009 --- Top 7 overall and top 5 on placement
- 2008 --- Top 7 overall and top 3 on placement
2007 --- Top 9 overall and top 5 on placement
2006 --- Top 10 overall

The rankings cover all premier engineering colleges, including the IITs.

In 2009, IIIT-H was ranked Top 2 on placement (among both private and government engineering colleges) and Top 2 overall (among private engineering colleges) by Mint-Cfore carried out Survey 2009.

In 2009, IIIT-H recorded the highest average compensation in India at Rs.6.2 lac, which as ahead of IIT-Mumbai’s Rs.6 lac.

In 2008, IIIT-H was ranked Top 2 on placement (among both private and government engineering colleges) and Top 9 overall (among both private and government engineering colleges) by Outlook-Synovate Survey 2008.

In 2008, IIIT-H recorded the second highest average compensation of Rs.7.2 lac – which was close behind IIT-Kharagpur’s Rs.7.4 lac.

UGC appointed Review Committee for Deemed Universities visited the campus interacted with institution and gave a glowing report.

6.4.9 Has the institution conducted any programme for skill upgradation and training of the non-teaching staff based on the performance appraisal? Give details

The Institute has encouraged the non-teaching staff to attend the regular English course to improve their communication skills and the computer admin staff to attend regular IT workshop and programming courses.

6.4.10 Does the institution conduct staff development programme for the teaching staff, & non-teaching staff? Illustrate.

A 7-day workshop on Jeevan Vidya is held at regular intervals for self development related to human values for faculty and staff. These are also attended by faculty of other colleges as well as others.

6.4.11 How are teaching staff encouraged to use the computers, Internet, audio-visual aids, computer aided packages etc.?

All the teaching staff are provided computers with internet. Every faculty member uses the audio-visual aids or power point presentations in seminars (and in class room when needed). Most class rooms are equipped with LCD projector and speakers. All faculty members are highly qualified and proficient in use of computers.

6.5 Financial Management and Resource Mobilization

6.5.1 Provide income / expenditure statement for the last financial year (provide the same to the peer team during the onsite visit)

The income and expenditure statement is herewith enclosed. Annexure – H
6.5.2 Is the operating budget of the institution adequate to cover the day-to-day expenses? If not, how it is managed?

Yes

6.5.3 Is the maintenance budget of the institution adequate with reference to its infrastructure and learning resources?

Yes

6.5.4 Have the accounts been audited regularly? What are the major audit objections and how are they complied with?

Accounts are audited regularly and there are no objections.

6.5.5 Does the institution have a mechanism for internal and external audit? Give details.

Yes, we have internal & External audit.

Internal auditors: M/s Ramanatham & Co
302, Kalamansion
Sarojinidevi Road
Secunderabad – 500 003. Ph.No: 040-27814147

External auditors M/s M. Anandam & Co
7A, Surya Towers
Sarojinidevi Road
Secunderabad – 500 003. Ph.No: 040-27812377

6.5.6 What are the current tuition and other fees?

Under Graduate Programmes: For UG1&UG2: Rs. 50,000 per semester
For UG3&UG4: Rs. 47,500 per semester

Post Graduate programmes: Rs. 62,500 per semester

MS by Research / MPhil / PhD programmes: Rs. 50,000/- per semester

6.5.7 How often is the fee revised?

Yearly.

6.5.8 What is the quantum of resources mobilized through donations? (other than block grants) Give details.

Very small. Below Rs. 5 lakhs per year.
6.6 Best Practices in Governance and Leadership

6.6.1. Describe best practices in Governance and Leadership adopted by the college in terms of institutional vision and leadership / organizational arrangements / strategies development / deployment human resource management / financial management and resource mobilization

The following we believe, are some of our best practices in governance and leadership.

(a) Empowering Faculty

Several structural steps have been taken to empower faculty. Most important of these are the setting up of research centres rather than departments. The centres are smaller than departments consisting of 2 or more faculty. Faculty members in a centre have much greater autonomy as a result. Centre/Labs have a standing account each whose money is under their control totally. It does not lapse from year to year. It builds ownership with a sense of responsibility. The centres are free to spend the money for research purposes.

Each faculty member has a faculty discretionary account which can be used for personal development of faculty. It can be used for any purpose related to research including international travel.

(b) Transparency and openness

All major decisions of the Institute are first discussed openly in a number of bodies involving the faculty before going to the statutory bodies. People feel free to openly speak their mind in faculty meetings. It sends a strong message of democratic functioning.

(c) Environment of Mutual Trust and Respect

An environment of trust and respect has been built which is free of acrimony and conflicts. This has been done by carefully building a “family” within the Institute, where there is a sense of fair play and support and caring.

(e) Efficient Staff

The institute runs with a lean and efficient non-teaching staff at administrative, management, finance, technical, and sports. The institute has been able to bring in a sense of ownership among its staff to enable them to ensure smooth functioning of the institute.

(d) Environment of Experimentation and Innovation

There has also been an attempt for the Institute to continue to innovate and experiment. On occasions issues of brand value of the Institute came up which tended to suggest we should not move into new areas or experiment with existing programs. However, it was realized that it was important to experiment with new methods, new programs, etc.
Criterion VII: Innovative Practices

7.1 Internal Quality Assurance System

7.1.1 What mechanisms have been developed by the institution for quality assurance within the existing academic and administrative system?

Normal administrative system has been developed with reporting structure. But there are some significant differences: (a) A strong sense of responsibility has been developed with Institute as a family, and (b) open system with feedback and correction at every level rather than a system based on authority.

7.1.2 What are the functions carried out by the above mechanisms in the quality enhancement of the institution?

With a strong sense of belongingness, people work to fulfill their responsibility. Feedback provides info about what is missing. These serve to enhance quality with warmth and helpfulness.

7.1.3 What role is played by students in assuring quality of education imparted by the institution?

Students also have a strong sense of belongingness and a general feeling that Institute is working for their good, even when they differ with strict rules regarding attendance etc.

7.1.4 What initiatives have been taken up by the institution to promote best practices in the institution? How does the institution ensure that the best practices have been internalized?

The major method used is by having an open system with many people involved in decision making. Open discussions and committee meetings help in spreading best ideas and practices.

7.1.5 In which way has the institution added value to students’ quality enhancement?

Student's quality enhancement is academics, social and cultural aspects and above all, human aspects is carried out by having an open, supportive, sensitive and introspective environment.

7.2 Inclusive practices

7.2.1 What practices have been taken up by the institution to provide access to students from the following sections of the society:

a) Socially-backward
b) Economically-weaker and
c) Differently-abled

Institution is playing a major role in creating new models of inclusion which would be more effective in their ability to reach out to the weaker sections. We are working with AP Govt. in supporting the new Rajiv Gandhi University of Knowledge Technologies which has 85% reservations for rural students. IIIT-H is creating digital content and
undertaking a large scale mentor training program. The admission policy of choosing local best from every block also ensure that students who benefit are actually from weaker sections. This would benefit 6000 students per year as opposed to a 100 or so students who would be benefitted in the existing model of inclusion (through reservation). Thus, the new models yield many times more than the prevailing models.

7.2.2 What efforts have been made by the institution to recruit staff from the disadvantaged communities? Specify?

a) teaching
b) non-teaching

Please see 7.2.1

7.2.3 What special efforts are made to achieve gender balance amongst students and staff?

No special effort has been made.

7.2.4 Has the institution done a gender audit and/or any gender-related sensitizing courses for the staff/students? Give details.

Institute organizes Human Values courses which emphasize viewing and relating to another human being independent of gender (or race or caste or wealth etc.)

7.2.5 What intervention strategies have been adopted by the institution to promote overall development of the students from rural/tribal background?

Human Values course address the issue of self respect and self confidence.

7.2.6 Does the institution have a mechanism to record the incremental academic growth of the students admitted from the disadvantaged sections?

Institution has support mechanisms and structures for students who are not doing well academically or for those who need counselling and advise, irrespective of where they have come from.

7.3 Stakeholders Relationships

7.3.1 How does the institution involve all its stakeholders in planning, implementing and evaluating the academic programmes?

Institute involves all the faculty members and industry in designing the curriculum as well as syllabi of courses. At the implementation and evaluation stage, students play an important role through informal as well as formal feedback. Industry feedback is taken thru placement office and informal means thru numerous interactions.

7.3.2 How does the institution develop new programmes to create an overall climate conducive to learning?

Institution creates a conducive climate by consistently putting an argument about sincerity and hard work. It is also demonstrated to the students by the faculty through example by putting this maxim to work.
7.3.3 **What are the key factors that attract students and stakeholders resulting in stakeholder satisfaction?**

There are two key factors in stakeholder satisfaction:

a) A feeling of confidence that the institution is sincerely trying to do its best (even when they disagree with institutional policies)

b) Implementation of ideas that start yielding benefits.

7.3.4 **How does the institution elicit the cooperation from all stakeholders to ensure overall development of the students considering the curricular and co-curricular activities, research, community orientation the personal/spiritual development of the students?**

Institution elicits cooperation by empowering them, telling them about institutional goals and how their own goals relate to the larger goals of the institutions. This ensures that cooperation comes from inside.

7.3.5 **How does the University anticipate public concerns with current and future programme offerings and operations?**

Institute does careful analysis while offering new programs in terms of load, employability etc. Even for existing programs it keeps track of these and any other public concerns.

7.3.6 **How does the institution promote social responsibilities and citizenship roles among the students? Does it have any exclusive program for the same?**

Institute has put in a lot of effort on developing responsibility and citizenship among students. Enormous effort has been put on developing the Human and ethical aspects. For example, the entire incoming UG class is divided into small groups of 10-12 students. A faculty member and a senior (PhD or MS) student is attached to each group, which meets twice a group. The purpose of involving as many as 25 mentors is to make an impact by giving personal attention to these aspects. In fact, this effort has had transformational effect on students and general atmosphere.

7.3.7 **What are the institutional efforts to bring in community-orientation in its activities?**

Because of sensitization of students through Human Values, many spontaneous efforts have started by students, for example running an evening school for children of migrant workers (running for last several years), involvement of housekeeping staff in cultural festival (started this year), care and concern for housekeeping staff (over last 2-3 years), etc.

Institute has started Humanities Project as a part of academic curriculum. In a couple of these projects, students have taken up survey in nearby villages. Some years back there was involvement in literacy project (which has stopped now).
7.3.8 How does the institution actively support and strengthen the neighborhood communities? How does the University identify community needs and determine areas of emphasis for organizational involvement and support? How do the faculty and students contribute in these activities?

Not undertaken yet.

7.3.9 Describe how the institution determines student satisfaction, relative to academic benchmarks? Does the institution update the approach in view of the current and future educational needs and challenges?

Yes. There is a comprehensive system of feedback. Formal feedback is taken on every course every semester, results are compiled electronically and made available to concerned faculty, Dean and Director.

FSIS (Faculty Students Interaction Session) meeting takes place on most Thursdays from 5:00-6:30 PM. This is a fixed slot in the timetable every semester for last 5-8 years.

The batches also have formal class representatives who approach the teachers or Deans if there is any issue regarding academics.

Extensive informal consultations with students also take place on course work.

7.3.10 How does the institution build relationships

- to attract and retain students
- to enhance students’ performance and
- to meet their expectations of learning

Besides the various mechanisms outlined in 7.3.9 and the human values courses (see 7.3.6) thru which faculty is connected with the entire 1st year batch, there are also extensive faculty-student contacts thru projects, term papers, B.Tech (Honours) program etc.

7.3.11 What is the institution’s complaint management process? How does the institution ensure that these complaints are resolved and promptly and effectively? How are complaints aggregated and analyzed for use in the improvement of the organization, and for better stakeholder-relationship and satisfaction?

Students can complain directly to any concerned authority or through their class representatives to their teachers. Student parliament has also developed methods for bringing any issue to light to the institute. Head of Research Centres, student life chair, wardens, Deans & Director are also available easily to students.

Once a complaint is received, it is attempted to resolve it at the right level. If it does not work, the concerned level raises it to the next level.

Students also feel free to go to the highest levels easily and they are advised to wait for the right level to resolve it, or if there is a delay, suitable measures are taken.