

re S. Anand

University Grants Commission New Delhi

Report of the expert committee constituted to examine the proposal of [REDACTED] for grant of Deemed to be University status under section 3 of the UGC ACT, 1956.

The Chairman, University Grants Commission constituted a committee comprising of the following members to examine the proposal of Indian Institute of Information Technology [REDACTED] for grant of Deemed to be University status under section 3 of the UGC ACT, 1956.

Prof V Rajaraman Honorary Professor, SERC Indian Institute of Science Bangalore 560012	Chairman
Prof S. G. Dhande Director, IIT Kanpur	Member
Prof D. B. Pathak Nilekani Chair Professor School of IT IIT, Bombay, Powai Mumbai 400016	Member
Dr. Bobby Mitra CEO, Texas Instruments (India) Ltd.. Bagmane Tech. Park #66/3, Bysandra, C. V. Raman Nagar Bangalore 560093	Member
Dr Bob Hoekstra CEO Philips Innovation Centre #1 Murphy Road Ulsoor, Bangalore 560008	Member
Dr. N Seshagiri Former Director General ,NIC Emeritus Scientist, CSIR Centre for Mathematical Research Bangalore-560012	Member

Dr. S Ramani,
Director HP Labs
Former Head, NCST, Ministry of IT.
#24, Salarpuria Arena,
Hosur Main Road, Bangalore 560030

Member

Dr R K Chauhan
Additional Secretary
University Grants Commission
New Delhi - 110002

Member Secretary

The committee visited the Institute on 4th November 2004 and had further discussions on 5th November, 2004. All the members except Prof. S. G. Dhande visited the institute on the above said date.

1. Introduction

The committee visited the institute for an on the spot assessment of the infrastructural facilities and academic programme of the institute. The committee was welcomed and received in the institute by Prof S Sadagopan, Director, along with his faculty colleagues and the Registrar of the institute. In their presentation before the committee, Institute highlighted the ongoing academic programs and their future plans.

The institute is managed by a Board of Governors who are distinguished leaders in Industry and academia. The Board is headed by Dr NR Narayana Murthy, Chairman, Infosys Technologies Ltd. Academic members include Prof PG Apte, Director, IIM-B and Prof Ken Keniston of MIT USA. The Government members include the IT Secretary, Govt of Karnataka and the Director, STPI Bangalore. The industry members include; Mr. Ketan Sampat, Chairman, Intel India, Mr. Ravi Venkatesan, Chairman, Microsoft India, Mr. Balu Doraisamy, Managing Director, HP India, Mr KV Kamath, MD of ICICI Bank Ltd, Mr. K Subramanian, President & CEO, Covansys, Mr. R Ravisankar, CEO i-flex Solutions Ltd. The industry association member is Mr Kiran Kamik, President, NASSCOM.

The committee had deliberations with Dr. N R Narayana Murthy, Chairman of the governing Body of iit-b and also other board members about the future vision of the institute and the efforts which were on in their pursuit of excellence towards making the institute a world class one in research & education.

The committee also had a meeting with Mr. D B Inamdar, Former IT Minister, Government of Karnataka, who was instrumental in nurturing the institute.

The committee visited all the physical and infrastructural facilities including administrative block, academic block, library, laboratories, residential quarters for visiting faculty, student hostels and other infrastructural facilities and the students amenities.

The committee had detailed interaction with the faculty, the students and the alumni.

The committee made the following observations.

a) **Establishment aims and objectives**

The institute is located in 26/C Electronics City, 1st Phase Bangalore, on a campus of 8 acres of land. Another 5 acres is in possession and has been earmarked for further expansions. The land along with building was acquired and allotted by the state government of Karnataka to the institute.

The Institute was established in the year 1999, with the following main aims and objectives.-

- To become a globally recognized institution of higher learning in Information Technology (IT) and establish Bangalore as a global centre of excellence in the IT Industry, by training engineering graduates from Universities selected on the basis of a merit based competitive examination to make them suitable to meet the needs of the IT industry.
- To become the primary institution this would set the standards of IT education for the educational institutions in Karnataka
- To offer Masters and Doctoral programs to engineering graduates
- To carryout Research and Development activities in fields such as software engineering, software Project management, Quality and other related areas an, both on its own account and on sponsorship basis for the Indian and global IT industry.
- To undertake short term training programs to upgrade the skills of engineers already working in the software industry .
- To offer consultancy and guidance to the state of Karnataka in its drive to computerize its activities of the state, to train personnel involved in such activities and to formulate various policies, schemes and projects.
- To act as an effective interface between the industry, and the academic, scientific institutions with a view to cultivate new innovative technologies, developing Intellectual Property, aid in patent registration and assisting in their commercialization.
- To establish and disseminate quality standards for the industry and assist the industry and Government in conducting Quality Audits.

The institute is registered under Societies Registration Act, 1960 as "Indian Institute of Information Technology", Bangalore

The institute has been recognized by the Ministry of Science and Technology, Department of Scientific and Industrial Research, Government of India as "Scientific and Industrial Research Organization"

b) Courses Offered

The institute offers Post Graduate Diploma in Information Technology (PGDIT) of two years duration with an intake capacity of 150 students per annum with a tuition fee of Rs 50,000/- per semester.

The details of all the students who have passed out from the institute since its inception is as under:-

Year	Number of Students Passed
2001	136
2002	112
2003	121
2004	133

At present, there are 231 Students on the roll of the institute.

The institute approached the All India Council for Technical Education for accreditation of the PGDIT Program. The expert committee of AICTE visited the institute on 24th May 2002 and 10th July 2002. No formal communication was received thereafter from AICTE. The institute has again approached for conferment of Denovo Deemed to be University status. The AICTE vide its letter number 6032-093/iitb/QA/2003 dated 08/01/2004 informed the institute that the course offered by the Institute is "Post Graduate Diploma in Information Technology". The council has not been according approval for the proposal of postgraduate diploma courses since 1997. (Annexure I)

c) Faculty

The institute has 15 full time faculty members (7 Professors including Director, 4 Associate Professors, 3 Assistant Professors and 1 Post-Doctoral Fellow). In addition the institute has 4 adjunct faculty and 14 visiting faculty.

Senior faculty members include former deans of IIT Kanpur and IIT Madras, former Heads of the Departments of IIT Kanpur, IIT Delhi, IIT Madras and IIM Bangalore

The achievements of the faculty since its inception is as under:-

Years	99 - 00	00 - 01	01 - 02	02 - 03	03 - 04	04 - 05 till now	Grand Total
Refereed Journal Papers	—	2	2	NIL	1	8	13
Refereed Conference Publications	—	1	3	7	17	5	33
Conference Presentations	2	3	—	—	—	2	7

Books Published / Authorship / Editorship	1	--	--	1	1	5	8
Book Chapters	--	2	1	--	--	--	3
Awards	--	--	1	--	3	--	4
Refereeship (Papers, Theses Etc.)	--	2	2	5	10	18	37
Editorship	--	--	--	2	2	1	5
Conference Program Chair / Membership	--	1	1	2	5	8	17
Patents	--	--	--	--	1	2	3
Industry Training Programs Nos. / Participations	--	1 / 40	1 / 40	1 / 30	5 / 120	5 / 115	13 / 345
Executive Programs conducted at IIT-B	--	4	2	9	5	2	22
Sponsored Projects Nos / Total Amount in Indian Rs.	--	--	--	2 / 10.42 Lacs	3 / 54.0 Lacs	6 / 2.6 Crs	11 / 3.2442 Crs.
Consultancy Projects	1	4	5	4	5	8	27

Some of the important consultancy projects done by the faculty, in the last 2 years are as under:-

- (a) Consultancy for Combined Check-post Computerization of Government of Karnataka
- (b) Commercial Tax Department, Govt of Karnataka
- (c) World Health Organization
- (d) National Highway Authority of India
- (e) E-governance initiative in Govt of Karnataka
- (f) E-governance project evaluation for Ministry of IT, Government of India
- (g) Janagraha – a social organization.

The approximate value of the consultancy projects exceeds Rs. 150 lacs.

d) **Research and Publication:**

The Faculty achievements have been highlighted in the table given above,

Some of the books and journals published are:

- Applied Computing @ Second Asian Applied Computing Conference AACC 2004 Katmandu Nepal October 2004 – Prof Asoke Talukder
- Mobile Computing by Prof Asoke Talukder
- Management Information System by Prof S. Sadagopan
- Managing Global Software Projects by Prof Gopaldaswamy Ramesh
- An Introduction to Operating Systems by Prof P C P Bhatt.

e) **Infrastructure and Building space**

The institute is spread over 8 acres of land in Electronics City Bangalore with plinth area of 163,500 sq. ft. comprising of administrative and academic block, library, laboratories, residential quarters for visiting faculty, student hostels and other infrastructural facilities and students amenities.

Name of the Building	Ownership	Plinth Area Sq. Ft	Cost for Modifications and Renovation Rs
Administrative & Academic Block	Society	80,000	800 Lacs
Hostel Block	Society	80,000	800 Lacs
Canteen	Society	3,500	25 Lacs
Total	Society	163,500	1625 Lacs

That institute has excellent physical infrastructure consisting of Computing facilities which are mentioned below:- ✓

- IBM HS 20 Blade Server with 5 blades (2.8 GHz Xeon processor, 1 GM RAM, 40 GB Disk), SAN with 600 GB; Three Compaq Proliant Servers; Sun SPARC 220R Enterprise Server
- 300 laptops (HP NX 5000, HP Presario 2100).
- 200 Laptops for Laboratories
- Gigabit LAN; Wi-Fi LAN; 734 network ports
- High-speed Network Printer HP 8100 DN; 20 Desktop Inkjet printers
- Windows 2003 Enterprise Ed; Sun Solaris; Red Hat 9.0 Linux; Mail Server; Web Server; IBM DB2, Oracle 9i, MS SQL, Rational Suite, Borland Suite, Visual Studio; Xilinx, Wind-river, VSIM, Symantec Suite, HP Openview, Acado CMS.

The centrally air conditioned Academic block and administrative block are operated using the following

- Generator – 320 KVA & 80 KVA
- UPS – 80 KVA & 10 KVA
- Effluent Water Treatment
- 200+ Tons Split Air-conditioners (7.5 and 5 Ton units)
- 13 LCD Projectors, Crestron Wireless Control, Smart Board (2), Projection TV (2), Polycom Video Conferencing equipment..

f) **Library**

The institute has a well stacked library adequately equipped with laptop computers and other audio visual aids. The Infosys has given a grant of Rs 100 Lacs for strengthening of Library facilities. The institute has subscribed to all online journals (Full Text Editions) of Both Institution of Electrical and Electronics Engineers (IEEE) and Association of Computing Machinery (ACM) U.S.A. for all text based journals since 1985.

g) **Laboratories**

The institute has the following laboratories

- **Teaching Lab**
 - Cisco Networking Lab with investment of 18 lacs
 - Architecture Lab with investment of 5 lacs
 - Honeywell Control Systems Lab with investment of 10 lacs
 - Embedded & DSP / VLSI Lab with investment of 17 lacs
- **Research Labs**
 - Intel PlanetLab with investment of 13 lacs
 - Network Management Lab with investment of 20 lacs
 - Siemens Vision Lab with investment of 15 lacs
 - Daimler Chrysler Mobility Lab with investment of 42 lacs

h) **Interactions with the faculty , students and Alumni and Governing Body**

The committee interacted with the faculty members of the institute. The committee was impressed with the quality of publications and achievements of the faculty. The faculty was highly motivated and satisfied with the academic environment, pay and perks being offered to them and also with the system of governance and management of the institute. The faculty was highly enthusiastic about the grant of deemed to be University status so as to start regular Masters and PhD programs.

The committee also interacted with the students in the classrooms and laboratories and also separately in a group. The students were highly satisfied with the quality of education being imparted by the institute. They expressed their happiness on the visit of the expert committee for grant to be deemed university status to this institute. There are three hostels, two for the boys and one for the Girls, having capacity of accommodating 260 students. All the hostel rooms are equipped with wireless internet facility.

The committee also interacted with representatives of the Alumni association. The Alumni were happy with the growth shown by the institute in the short span of 5 years. Alumni have started an endowment fund to provide scholarships to needy students.

2. Major observations of the Committee

1. Indian Institute of Information Technology Bangalore has been established by the State Government of Karnataka in the year 1999 with the cooperation from the IT industries. It has moved into its new campus in 2003 which has excellent infrastructural facilities and also hostel space for 250 students and a small guest house. A total of approx 31.8 crores (Annexure 2) has been invested so far in creating this Institute both by the Karnataka Government and by the industry. The Karnataka Govt. has further promised to provide a corpus fund of Rupees 10 crores. The development of the institute during the last 5 years has been excellent. They have already established their reputation all over the world as an institute of excellence. All students from every batch have been placed in the IT industries both in India and abroad. Some of their students have also been enrolled as doctoral students in premier universities such as MIT, U.S.A and Brandenburg, Germany and Indiana University USA.
2. The quality of infrastructure is excellent and academic programme are extremely innovative. On interaction with the students it has been found that the students particularly appreciated the commitment of the faculty and the hands on laboratory practice, which gives them confidence when they join IT industry.
3. The Institute has already recruited 15 very good faculty with Ph.D qualifications and many of them are respected professionals with industrial background. They want to transform their current diploma programme into Master's programme and also support doctoral programme to advance the state-of-the-art of IT in the country. The ambience of the institute in the midst of world class IT industries such as Infosys, HP, Siemens, etc., makes it possible for them to attract adjunct faculty who are practicing professionals and enrich the academic programme by giving appropriate lectures.
4. The institute has also been giving a number of continuing education programs, both for professionals in IT and also to teachers from other universities to upgrade their skills. The fact that the Institute is will recognized by the industry is evident from the observation that several companies such as Intel, CISCO, Siemens, etc., have set up and supported laboratories in the institute. They have also been giving grants along with the equipment to effectively run these laboratories.

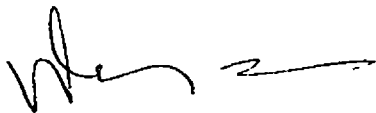
5. The then Chief Minister of Karnataka, Mr.S.M.Krishna, has sent a request vide his letter No. CM 58 GOI 2004 dt 17.2.2004 to the then Minister of HRD for granting Deemed to be University status to IIT Bangalore. (Annexure 3)

6. The institute approached the All India Council for Technical Education for accreditation of the PGDIT Program. The expert committee of AICTE visited the institute on 24th May 2002 and 10th July 2002. No formal communication was received thereafter from AICTE. The institute has now approached AICTE for conferment of Denovo Deemed to be University status. The AICTE vide its letter number 6032-093/iiitb/QA/2003 dated 08/01/2004 informed the institute that the course offered by the Institute is "Post Graduate Diploma in Information Technology" and that the council has not been according approval for the proposal of postgraduate diploma courses since 1997.

7. This Institute has a special status of being a specialized institute in IT with several streams of activities such as Computer Science, Computer Engineering, Communication Engineering, Software Engineering Information Systems and, social impacts of IT. The unique combination of all these sub disciplines gives this institute a rich academic ambience to pursue Masters and Doctoral programme in the frontier areas of IT.

RECOMMENDATIONS

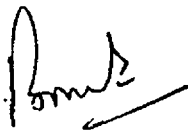
1. The committee having examined in detail the infrastructure , sustainability of the Institute, academic programme, quality of the faculty, quality of the students and the current continuing education programme of IIITB, recommends strongly that they be granted the status of Deemed to be University ~~under the provisions of the UGC Act, 1956~~ ~~under the provisions of the UGC Act, 1956~~
2. The committee noted that the UGC guidelines provide that the word "Indian" should not be prefixed by any state institution. Dr. N Seshagiri, who is former Special Secretary in the Ministry of Information Technology informed the committee that in the year 1986, the union cabinet has approved for the establishment of 10 Indian Institutes of Information Technology by the central and state governments and the said policy has not been changed till now. In the light of above, the committee recommends that the Indian Institute of Information technology be allowed to prefix "Indian" with its name.



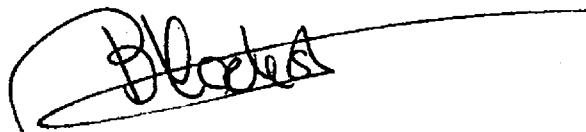
Prof V Rajaraman
Chairman



Prof D. B. Pathak
Member



Dr. Bobby Mitra
Member



Dr Bob Hoekstra
Member



Dr. N Seshagiri
Member



Dr. S Ramani
Member



Dr R K Chauhan
Member Secretary
S. XI. 2004