## Minutes of the Meeting of the 38th Meeting of the Council of IITs held on 7th September 2003

The 38th meeting of the Council of IITs was held at 11.00 a.m. on 7th September 2003 at Science Centre (Vigyan Kendra), Lodhi Garden, New Delhi. A list of participants is annexed.

Welcoming the members, the Hon'ble Minister for HRD and Chairman of the Council pointed out that meetings of the Council are an opportunity to review performance of the IIT system on a regular basis.

He pointed out that the student strength in IITs has increased from nearly 14000 in 1997 to over 24000 in 2003. Government's plan support has increased from Rs 51 crore in 1997-98 to nearly Rs. 200 crore in 2002-03. Overall annual support of the Government for IITs today is in the range of Rs. 750 crore (including support for sponsored research). Considering an average of Rs. 500 crore per year over the last five years, Government support to IITs would be around Rs.2500 crore. He informed that the total alumni donation for all IITs taken together is well below Rs.200 crore. While appreciating alumni involvement in IITs, he informed that it had not resulted in the kind of support by way of funds as projected in media. He pointed out that the Government is the Principal Funding Agency for the IITs and assured that it will continue to be so in view of the importance that the Government gives to the IITs.

He then referred to some disturbing trends in science and engineering education at the PG level and in the research performance of the IITs. He pointed out that on per thousand population basis, India has only around 6 S&T personnel, whereas China has 8.1, South Korea 45, U.S.A. 55, Germany 76, Israel 76 and Japan 110. India produces 5000 Doctorates in science and engineering each year compared to 9000 by China and 25000 by US. In Engineering alone, this number was dismal 298 in 1996-97, though it has increased to 739 in 2001-2002, but this is still far from adequate. Compared to this in US, 6305 and in Japan, 2127 Doctorate degrees in engineering were awarded in 1996.

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In terms of research publications, India has slipped from 8th position in 1980 to 13th position in 1995 and is now at 15th position. Whereas in the last 20 years, number of such publications from China has increased from 1000 to 22,000, from India it has decreased from 15,000 to 13-14,000. Quality of publication is also poor which is evident from low raking of the Country in terms of citations per paper.

Coming to the IITs, Chairman pointed out that each IIT is merely contributing nearly 300-400 articles per year with a faculty strength of nearly 300-400 each. This is not encouraging. It was pointed out this should be around 3 per faculty. Their performance in terms of patents and technology transfer is even poorer. It was felt that each IIT should attempt to file at least 20-25 patents each year.

Coming to the issue of involvement of IITs with the Indian industry, the Chairman pointed out that it is still at a low level. He suggested that all technology research must result in patents. Each IIT should select areas of focus. IIT should not only develop technology for Indian industry but also guide their growth towards adoption of new technologies. Pointing to the fact that the bulk of R & D expenditure in India is accounted for by the public funded R & D institutions with industry spending only 28 per cent of national R & D expenditure, whereas in most developed nations, 60-80% of this comes from private sector, he stressed that both industry and academic institutions need to work close together. He appealed to both the Chairman and Directors of IITs to infuse in the students of IITs, a spirit of enquiry and research so that IITs could contribute more effectively in technology development relevant to Indian industry in the society. He suggested that IITs should have a well-dispersed research agenda with balanced emphasis on technology development and fundamental research in cutting edge areas.

In course of discussions, some important information was given and a few suggestions were received from the members. These are listed below for record.

Industry is keen to pursue a programme of hiring students and allowing them to do research in academic institutions in broad areas of their interest while paying company salaries.

- To improve interface with industry, user-friendly database of expertise and facilities is being compiled for the automotive sector. The same could be done for the IITs. In fact for the entire system by the AICTE.
- Because of competitive pressures, technology transfers in future are becoming more restrictive. Therefore Indian industry has to increasingly depend on Indian R & D system (including IITs).
- There is need to bring IIT system, NIT system, University System, Indian industry and R & D System on one platform to discuss on how they could all work together.
- A scheme of interest free deferred payment may be introduced to recover cost of education in IITs to ensure that investments in IITs are properly targeted.
- To the extent possible, IITs need not recruit any Group D staff. All such activities could be outsourced by the IITs.
- Chairmen of BoGs may be authorized to approve Foreign Visits of the Directors of IITs.

Thereafter, the items on the agenda were taken up for discussion.

### Item 38.1: Confirmation of the Minutes of the Last Meeting

The Council confirmed the minutes of the 37th meeting of the Council of IITs held on 21st May 2002.

## Item 38.2: Report Changes in the Membership of the Council

The Council welcomed the new members and placed on record its appreciation for the service rendered by the outgoing members.

Item 38.3: To Report Action Taken On The Minutes Of The 37th Meeting Of The Council Of IITs Held on 21st May 2002.

Action (s) taken in pursuance to the decisions taken in the 37th meeting of the Council held on 21st May 2002 were noted.

While reviewing action taken on JEE related agenda of the last council meeting, members expressed serious concerns about the impact of JEE on the School and UG Education in Colleges. It was pointed out that students admitted in IITs today are not necessarily inherently bright, proliferation of the coaching institutions have distorted

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the IIT entrance system. The Council was informed that the IIT Review Committee is examining the matter in greater details.

#### Item 37.4: Appointment Of Directors Of IITs

The Council ratified the new appointment to the post of Director, IIT Guwahati.

#### Item 38.5: Review of Formula-driven Performance- based funding mechanism

The Council noted that Formula-driven Performance based funding mechanism is driving the IITs in the desirable direction. Most IITs have increased intake in PG and doctoral programmes. There is increased thrust on research outcomes.

Various suggestions such as - lowering the weightage for part time PG / Research students, enhancing weightage for MS (by research) students, considering Ph.D. students for five year duration, considering pass out numbers for calculations and External Peer Review of research Performance were received for further improvement in the funding mechanism. The Council decided that these suggestions be referred to the Expert Committee already constituted for detailed deliberations and for making necessary changes as may be required.

Further, the Council approved the clarification that utilization of corpus in excess of Rs.25 cr. shall not include project based / conditional donations and savings from sponsored research activities and interest thereon.

#### Item 38.6: New Joint Initiatives for Quality Improvement in Technical Education

The Council noted that three initiatives endorsed by it, namely - National Programme for Earthquake Engineering Education (NPEEE), National Programme for Technology Enhanced Learning (NPTEL), Indian Digital Library for Engineering, Science and Technology (INDEST) Consortium have already been approved and formally launched. The Council hoped that the IITs would ensure that activities taken up under these Programmes would be completed in a time bound manner. The Council also noted that Eklavya Technology Channel - an exclusive channel for technical education was started on 26 January 2003 with the participation of all IITs and coordinated by IIT Delhi. It hoped that the Channel would spur quality improvement through out the technical education system in the country.

The Council endorsed the National Programme for HRD in IT on the basis of the Report of the Task Force on HRD in IT. It hoped that the series of activities such as - Support for Low cost Computing and Open Source Software Ecosystem, High Speed Campuswide Networks and Reliable & Affordable Connectivity, Changes in Engineering Curriculum by making it Information-science-based, Manpower Development for Hardware Sector, Manpower Development in Emerging Technology Areas at the PG level, Outreach Education Programme for Continuing Education, Networking for Academic Collaboration, Promoting Interface with Industry, Technical Manpower Database and Computerization of Administrative Support Services initiated through this Programme would overhaul the entire engineering education by IT-enabling it to meet the future challenges and using new technologies to improve its quality.

The Council while endorsing the National Programme for Quality Textbooks in Technical Education aimed at making low-cost, high quality textbooks in technical education available for the technical education in the country cautioned that choosing the right authors and motivating them would be critical to this Programme and should be looked into at the time of implementation.

The Council while endorsing the National Programme for Bio-sciences and Bio-engineering Education at select technical institutions (including IITs) in the Country warned that such initiative should be demand driven with focus at the PG and Research level. It was felt that indiscriminate expansion of the bio-technology programmes driven by media hype would be counter productive. It was pointed that AICTE had already taken safeguards to prevent indiscriminate launch of programmes in bio-technology areas at the UG level.

## Item 38.7: Appointment of Persons of Indian Origin (PIOs) and Foreign Nationals

The Council approved that appointment to permanent faculty positions in IITs may be made open for PIOs with foreign passports. This would obviously be subject to political and security clearance from Ministry of External affairs and Ministry of Home affairs in each case. Mechanism of obtaining clearances would require simplification to facilitate the process. For the time being foreign nationals (other than PIOs) would be

allowed to be appointed for fixed tenure only on contract basis as approved in the Council in the last meeting.

#### Item 38.8: Performance Management of Faculty in IITs

In view of the importance of an effective, transparent and objective performance management system of faculty, the Council advised all IITs to re-examine their performance appraisal systems and promotion procedures and bring in modifications, if any, required to maximize the output of faculty to meet new and emerging challenges. Each IIT could design its own system(s) and procedures with the approval of their respective Boards. Other issues like keeping the faculty continuously motivated, providing non-monetary incentives to high performing faculty and weeding out the non-performers may be examined by IIT Review Committee in greater details.

#### Item 38.9: Review of Post Graduate Education and Research

The Council endorsed further review of the Policy Framework for PG Education and Research notified by the Ministry vide No. F-23-1/2002.TS.I dated March 11, 2003 and hoped for immediate action on it.

#### Item 38.10: Setting up of Campuses of IITs Abroad

The Council noted that there were three specific proposals from Singapore, Sri Lanka and Mauritius for setting up overseas campuses of IITs. It was pointed out that this issue was referred to the IIT Review Committee. Chairman requested that the Review Committee may give its recommendations on the issue expeditiously.

## <u>Item 38.11: Admission of Foreign Meritorious Students in PG & Research Programmes in IITs</u>

The Council noted that the Report of a Committee to facilitate foreign meritorious students to join postgraduate and doctoral programmes in IITs has been received. It was pointed out that this issue was referred to the IIT Review Committee. Chairman requested that the Review Committee may give its recommendations on the issue expeditiously.

Item 38.12: Review of Usage of Resources under INDEST Consortium, Issue of Research Productivity and Related Areas between Cooperation between IITs

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The Council appreciated that electronic resources available through INDEST Consortium are being used extensively in all IITs (and IISc) and its usage is being monitored regularly. The Council noted that the electronic resources accessible at IITs and IISc are also being shared through and interface called J-Gate Custom Content for Consortium (JCCC) that facilitates generation of automated inter-library loan requests directly by users in NITs to one of the IITs / IISc.

On perusal of statistics relating to source articles that appeared in Science Citation Index for past ten years, the Council noted that research productivity levels are rather low and hoped that with very liberal availability of e-resources and thrust on research, this should now improve.

The Council approved additional activities related to content creation, archival centres, database of Theses and Dissertations across IITs, Web-based Union Catalogue of Journals / Other Serial Publications & Books and Cooperative Cataloguing of Internet-based Electronic Resources under INDEST Extended and hoped early action on it.

The Council advised that INDEST Consortium should collaborate with other similar electronic resource consortia to enhance its coverage.

#### Item 38.13: Discussion on the Article - IITs: An Academic View

Article titled "IITs: An Academic View" by Prof. P. Balaram, Editor (Current Science) bringing out areas of strength and issues of concern relating to IIT system was placed before the Council. The Council noted that though, through intermediacy of biology, many practical problems of medicine and agriculture could be taken up at our best technical institutions, but expansion of bio-related areas in IITs should be done with care so that it synergizes with their existing strengths.

Item 38.14: Matters relating to cadres, methods of recruitments and conditions of service of employees and on other matters of common interest

(A) Review of Modified ACP Scheme approved in the Last Council Meeting

On review of the Modified ACP Scheme approved in the Last Council Meeting, the Council, approved the following changes:

- a) Two financial up-gradation on completion of 10 years and 20 years of regular services be based on selection without any restriction of percentage of staff to be so promoted. Selection procedure shall be based on the conduct of a job related test in each case, along with an interview and evaluation of past performance based on confidential reports and there shall be a requirement of obtaining 60% marks overall with a minimum of 50% in the test to become eligible for upgradation.
- b) For Group D staff employed in the unskilled category, the first financial upgradation may be given on completion of 3 years of regular service and after appropriate training, to be devised and conducted by the Institute, to adjust their scale to the scale for semi-skilled Group-D staff. This shall be in the nature of a "fitment" rather than a financial upgradation.
- c) Financial upgradation from one Group Scale to next higher Group Scale may be allowed.

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## (B) Revision of pay scale of Assistants/ Stenographer Grade C/ Technical Assistants/ UDC (SG)/ other Technical Staff.

The Council noted that Assistants and Stenographers(Grade C) in IITs were given the higher pay scale of Rs. 1640-2900 (Rs.5500-9000 revised) in pursuance of the judgement of the Delhi High Court. Subsequently, pay scale of Rs. 1640-2900 (Rs.5500-9000 revised) was also extended to the Technical Assistants and UDC (SG) on the analogy of Assistants in IITs.

The Council further noted that on an separate LPA filed by the Ministry, the Divisional Bench of Delhi High Court has reversed the earlier decisions of the CAT and the High Court for grant of higher pay scale to Assistants /Stenographers of various autonomous bodies and PSUs under Government of India. The High Court has not accepted claim of parity of Assistants and Stenographers Grade C of autonomous bodies/PSUs with Assistants and Stenographers Grade C in the Central Government.

In view of the judgement of the Delhi High Court, the Council decided as under:

a) The Higher Pay Scale of 5500- 9000 / 1640-2900 (Pre-revised) given to Assistants and Stenographers grade C in IITs stands withdrawn. The Pay scale of Assistants

and Stenographers Grade C shall be 5000-8000 / 1400-2600 (pre-revised) w.e.f. 1.1.86.

- b) Higher pay scale of 5500-9000 given to Technical Assistants on the analogy of Assistants in IITs stands withdrawn.
- c) Higher pay scale of 5500-9000 given to UDC (SG) on the analogy of Assistants in IITs stands withdrawn.

Recovery of excess payment in view of the above decision will be made as per decision to be taken by the Ministry. Proposals subsequently received for pay revision of the other Technical Staff on the analogy of Technical Assistants stand turned down.

Considering the far-reaching consequences of this decision and sensitivities involved, the Council decided that the Group of Director (s) may jointly meet (along with representative from Ministry, if necessary) to work out a strategy to give effect to this decision.

(C) Ante-dating of financial benefits w.e.f. 1.1.1996 to those who were given the scale of Rs. 2000-3500 / Rs. 7500-12000 and Rs. 1320-2040 Rs. 4500-7000 notionally w.e.f. notionally w.e.f. 1.1.1996 with financial benefits w.e.f. 1.7.2000.

The Council did not agree proposal for ante-dating of financial benefits w.e.f. 1.1.1996 to those incumbents who were given the scale of Rs. 2000-3500 / Rs. 7500-12000 and Rs. 1320-2040 Rs. 4500-7000 notionally w.e.f. 1.1.1996 with financial benefits w.e.f. 1.7.2000.

The meeting ended with a vote of thanks to the Chair.

#### Appendix

### Present in the Meeting of the Council of HTs on September 7, 2003

1.	Dr. Murli Manohar Joshi	In the chair
2.	Dr. R. Chidambaram,	Member
3.	Prof Arun Nigavekar	Member
4.	Dr. R A Mashelkar	Member
5.	Prof. R. Natarajan,	Member
6.	Shri K K Jaswal	Member
7.	Prof. Goverdhan Mehta,	Member
8.	Prof. P. V. Indiresan,	Member
9.	Shri Rahul Bajaj	Member
io.	Prof. S K Joshi	Member
11.	Prof. C N R Rao	Member
12.	Shri Achyut Kumar Saikia	Member
13.	Prof. Ashok Misra,	Member
14.	Prof. R. S. Sirohi,	Member
15.	Prof. Gautam Barua	Member
16.	Prof. S.G. Dhande,	Member
17.	Prof. S K Dube,	Member
18.	Prof. M.S. Ananth,	Member
19.	Prof. Prem Vrat,	Member
20.	Shri V.K. Pipersenia (For Secretary-Expenditure)	Member
21.	Shri V.S. Pandey.	Member Secretary