



AGENDA

Eight (8th) Meeting of SENATE of

Indraprastha Institute of Information Technology, Delhi

Date: **6th January 2010**

Day: **Wednesday**

Time: **3.30 PM**

Venue: **Conference Room**
3rd Floor, Library Bldg
NSIT Campus
Dwarka, Sector - 3
New Delhi

EIGHT (8TH) MEETING OF SENATE OF IIT-DELHI

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EIGHT (8TH) MEETING OF SENATE OF IIT-DELHI

AGENDA

- 8.0 Opening remarks of Chairman
- 8.1 Confirmation of minutes of the 7th Senate meeting. (*Also confirmed through circulation by majority*) **(Annexure 1)**
- 8.2 Appeals by students
- 8.3 M. Tech Program **(Annexure 2)**
- 8.4 Courses offered in the Winter Semester 2010 **(Annexure 3)**
- 8.5 Any other matter with the permission of Chair



Minutes of the 7th Senate Meeting of IIIT-D held on October 28, 2009, at 3 PM in Conference Room, Library Building, IIIT Delhi.

Following members were present:

- Prof. Pankaj Jalote, (Chairman)
- Dr. Astrid Kiehn
- Dr. Mayank Vatsa
- Dr. Richa Singh
- Dr. Vikram Goyal
- Dr. Veena Bansal
- Dr. Anirban Mandal
- Dr. Ashish Sureka
- Dr. Ponnurangam Kumaraguru
- Mr. Anuj Kumar Tiwari, Student Representative (Invitee)
- Dr. A. R. Subramanian (Secretary)

Members present through Audio Conferencing:

- Mr. Saugat Sen, Cadence

7.0 Opening remarks of Chairman

The Chairman extended a warm welcome to all those who were present in person as also to those on audio-conferencing.

7.1 Confirmation of minutes of the 6th Senate meeting.

As there were no comments, the minutes were confirmed.

7.2 PG Manual Adoption

The draft PG Manual was deliberated and the suggestions of the members were taken note of. After incorporating all the views and

suggestions, the duly updated Manual is enclosed at **Annexure 1** for consideration and views, if any, from the members.

7.3 M. Tech Program in Computer Sciences

The Senate considered the programme structure and requirements of M.Tech to be launched from the forthcoming academic year. The programme with the following pattern was approved after discussions:

- i. M.Tech with thesis
- ii. M.Tech without thesis (but with scholarly papers).

7.4 Appraising the Senate about the verdict of the Delhi High Court in the Pranshu's case

The Senate was apprised of the outcome of the Pranshu's Academic Dishonesty case in favour of the Institute. A copy of the Judgment was also circulated for information through email separately for information.

7.5 Tabling of the courses to be offered in Monsoon Semester 2009

The Senate took note of the courses proposed to be offered during the Monsoon Semester as tabled.

7.6 Any other matter with the permission of Chair

There being no other items, the meeting ended with vote of thanks to the Chair.

MTech in Computer Science @ IIT-Delhi

1 Background

In IIT-Delhi we subscribe to the view that a Masters degree is primarily industry-focused, though it can be used as a stepping stone for research as well. And the decision whether the degree is to be pursued for skill and knowledge up-gradation or also for building research skills should rest with the student. In addition, we believe that a student should also be given a choice of pursuing MTech full time without assistantship, which, can allow a student to finish the requirements sooner.

Furthermore in the MTech degree, IIT-Delhi will also like to provide different specializations within Computer Science, while still allowing a general computer science degree. There is, in general, a greater need for specialized manpower in industry as each field gets larger and more complex, and with specialization, the Institute plans to develop highly skilled manpower in some focus areas where there is a need in the industry. (The survey the Institute did of technology companies also supported the view that specialized MTechs are more desirable by them.)

The rules and regulations of the general MTech program in IIT-Delhi are given in the PG manual of the Institute. This document specifies the requirements for the “MTech in Computer Science” program. In the “MTech in Computer Science” program, besides the general program, a student also has the option of doing “MTech in Computer Science with specialization in <area>”.

2 Requirements

2.1 Overall Requirements

MTech in Computer Science may be done in IIT-Delhi with a thesis or without a thesis but with a scholarly paper. In both options, students have to do certain amount of course work. In addition, students doing MTech with thesis will have to do a thesis. Students in MTech without thesis have to do more courses, but instead of a thesis they have to do a scholarly paper. The overall requirements are as follows:

1. **MTech with Thesis.** 28 units of course work + 16 units of thesis units. At most 4 units may be earned by doing 300 and 400 level courses – rest must be at 500 level and above.

2. **MTech with scholarly paper.** 36 units of course work + 8 units of thesis units for the scholarly paper. At most 8 units may be earned through doing 300 and 400 level courses.

For thesis units, though the student has to register, he/she need not be physically present and can do the work while being outside the Institute.

2.2 Core Courses

Each student has to do a set of “core courses” which provide advanced, but foundational, training in computer Science. As MTech is an advanced degree, this core is quite small (12 units). The core comprises of one course each from the following groups:

- Algorithms/theory: {Advanced algorithms, Theory, ... }
- Systems: {Distributed computing systems, Advanced operating systems,.. }
- Software: {Software tools and techniques, Secure programming, ... }

2.3 Electives

All other courses are electives and students can chose which courses he/she wishes to do to complete the requirements of the MTech.

2.4 Requirement for Specialization

If a student wishes to specialize in an area, from among the areas in which specializations are offered by the Institute, then the student must do at least 16 units of courses in that area, and must do his/her thesis credits in that area. (The advisor will certify this). (If a course is in the list of courses for a specialization, as well as in one of the groups for core courses, that course can be used for satisfying both the core and specialization requirements. However, the overall requirements remain unchanged.)

The lists of courses for each specialization are specified separately.

Appendix – Possible Schedules

As per the PG manual, the normal load for with assistantship is 12 units and without assistantship is 16 units, and an overload of up to 4 units is allowed (if CGPA is above the prescribed limit). Hence, for a student without assistantship the following schedules are possible for option of MTech with scholarly paper:

- **Schedule A:**
 - Sem I: 16 unit course work
 - Sem II: 16 units course work
 - Summer: Internship
 - Sem III: 4 units course work + 8 units of thesis

- **Schedule B:**
 - Sem I: 16 units course work
 - Sem II: 20 units course work (provided performance in Sem I permits overload)
 - Summer: 4 units of thesis
 - Sem III: 4 units of thesis (which can be done while working elsewhere)

For students on Assistantship, the following schedules are possible for option of MTech with thesis (assistantship is generally available only for with-thesis option). In MTech with Thesis option, even though the number of thesis credits are defined, as it requires a substantial thesis, it is expected that last semester, the student will spend a fair amount of effort in writing the thesis, which may not show up in thesis credits.

- **Schedule A:**
 - Sem I: 12 credits course work
 - Sem II: 12 credits course work
 - Summer: Internship
 - Sem III: 4 credits course work and 8 credits of thesis
 - Sem IV: 8 credits of thesis

- **Schedule B:**
 - Sem I: 12 credits course work
 - Sem II: 12 credits course work
 - Summer: 4 credits of thesis
 - Sem III: 4 credits course work and 4 credits of thesis
 - Sem IV: 8 credits of thesis

BTech-Courses offered in Winter Semester 2010

for B. Tech 2009

CSE112: Computer Organization (Khushil Saini, NSIT)

CSE102: Data Structures & Algorithms (Veena Bansal)

CSE122: Theory of Computation (Astrid Kiehn)

CSE131: System Management (Navpreet Singh/Jothibas V akundam)

HSS101: Technology and Society (Duru Arun-Kumar, NSIT)

HSS201: Research Methods (Ponnurangam K)

HSS202: Perspectives on Knowledge (Avinash Jha, guest faculty)

for B. Tech 2008

CSE202: Data Bases & SQL (Anirban Mondal)

CSE222: Algorithm Design & Analysis (Vikram Goyal, Debajyoti Bera)

CSE232: Computer Networks (Pushpendra Singh/Viyanak Naik)

HSS201: Research Methods (Ponnurangam K)

HSS202: Perspectives on Knowledge (Avinash Jha, guest faculty)

ESC202: Digital Communication (Sujata Sengar/Shree Prakash Singh, both NSIT)