AGENDA

Twenty-Sixth (26th) Meeting of SENATE of

Indraprastha Institute of Information Technology Delhi

Date: **25 June, 2014**

Day: **Wednesday**

Time: **02.00 PM**

Venue: **Senate Room, B-wing, 5th Floor,**
R&D Building, IIIT-D Campus,
Okhla Industrial Estate, Phase-III,
New Delhi-110020

TWENTY-SIXTH (26th) MEETING OF SENATE OF IIIT-DELHI
AGENDA

26.1 Opening remarks of the Chairman.

26.2 Confirmation of minutes of the 25th meeting of the Senate held on 19th February,2014.
The minutes of the 25th meeting of the Senate were circulated among the members. No comments have been received so far. The Senate may consider the same for confirmation. A copy of the same is placed as Annexure-I, P-20.

26.3 Confirmation of minutes of the Special meeting of the Senate held on 28th May,2014
The minutes of the Special meeting of the Senate were circulated among the members. No comments have been received so far. The Senate may consider the same for confirmation. A copy of the same is placed as Annexure-II, P-29.

ACTION TAKEN REPORT

26.4 To consider a proposal for incorporating the rules for online registration of courses in the UG and PG regulations
The Senate at its 18th meeting held on 19th April, 2012 had considered the proposals for leveraging web based delivery in education at IIIT Delhi and vide item No. 18.5 approved the same. The relevant extract from the minutes is reproduced below:

> **"18.5 Leveraging web based delivery for courses**
> Attached note gives two related but distinct proposals for leveraging web delivery in education at IIIT Delhi. These are both enablers - one enables the faculty to use web based delivery in courses they teach, the other enables the students to take approved courses from other sources and request credit transfer for the same. (Annexure III,P-37)"

Subsequently detailed rules for implementation were formulated and placed on the website(http://www.iiitd.ac.in/education/courses/online). However, these rules are not yet incorporated in the UG and PG regulations. A copy of the rules is placed at Annexure-IV,P-39.

Since the Institute permits the students to take online courses and count the credits towards fulfillment of degree requirement it is felt necessary that these rules for online registration of courses should form part of UG and PG regulations. Accordingly, it is proposed to add the following to both UG and PG Regulations:

Online Courses

IIIT-Delhi has evolved a system for allowing students to take online courses. Students can take advantage of the increasing amount of such courses made available by reputed universities across the world to complement the courses offered in the institute.

Form for online course is available at the following link:
http://www.iiitd.ac.in/sites/default/files/docs/education/online-course-application.pdf

Senate may kindly consider and approve the above proposal.

26.5 To consider a proposal for modification of PG Regulation 6 (2) regarding change from one program to another and payment of difference of stipend/fee

PG Regulation 6 (2) regarding change from one program to another and payment of difference of stipend/ fee currently provides as under:

'A PhD student can change his/her program to MTech. If this change is done by a student, he/she will be treated as being in the MTech program from the start of his/her program, and will have to refund the difference in fees and stipend between the PhD and MTech programs, if any. If this change is done on the recommendation of the PGC, then the student will be treated as MTech student from the time he/she transfers to it.'

The PGC has been discussing extensively on the issue of students failing their PhD reviews and then subsequently being suggested to enroll in an MTech. To avoid the possibility of confusion concerning payment of fees and refund of stipends in such cases, the PGC had suggested certain recommendations which were considered by the Senate at its 25th meeting held on 19th February,2014. The Senate after detailed deliberations agreed to the recommendations with some minor changes as under:

"If a PhD student fails his or her first two reviews, then the PGC may propose either that he or she leaves the institute; or enroll in the MTech program. If the latter, then usually full MTech fees would be payable by the student, along with any differences in stipends. In some cases, the stipend difference may be reduced, waived or deferred on case by case basis."

Arising out of discussions it was also decided that a warning letter will be issued by the Academic Section to students when they fail the first review which should also explain the above.

Accordingly, it is proposed to modify PG Regulation 6 (2) as under:

'A PhD student can change his/her program to MTech. If this change is done by a student, he/she will be treated as being in the MTech program from the start of his/her program, and will have to refund the difference in fees and stipend between the PhD and MTech programs, if any. **If a PhD student fails his or her first two reviews, then the PGC may propose either that he or she leaves the institute; or enroll in the MTech program. If the latter, then usually full MTech fees would be payable by the student, along with any differences in stipends. In some cases, the stipend difference may be reduced, waived or deferred on case by case basis.**

A warning letter will be issued by the Academic Section to students when they fail the first review which should also explain the above.

Senate may kindly consider and approve the above proposal.

ACADEMIC & STUDENTS MATTERS

26.6 To re-consider and approve the PhD Degree format

In the 3rd Convocation to be held on 31st August,2014 the Institute will confer Ph.D. degrees for the first time. The Senate at its 25th meeting held on 19th February,2014 had considered some sample Ph.D. degree formats of other Universities/Institutes including some US Universities and had approved the Ph.D. Degree format as per <mark>Annexure-V, P-40</mark> Subsequently we have received sample Ph.D.degree formats of two other institutes and it is proposed to consider these samples along with earlier samples for possible improvement of the degree format already approved by the Senate. All the degree samples will be placed on the table for perusal of the members.

26.7 To consider recommendation of PGC for adoption of LateX template for Ph.D. thesis

Dr. Mayank Vatsa had forwarded to Chair, PGC the **LateX template for Ph.D. thesis** (available at   <http://openwetware.org/wiki/LaTeX_template_for_PhD_thesis>) with the proposal to adopt the same at IIITD. The PGC has recommended to adopt the LATEX template for Ph.D. thesis .

A sample format (first three pages) of the format will be placed on the table.

Senate may kindly consider and approve the recommendation of the PGC.

26.8 (i) To consider a proposal for running a compulsory course of 2 credits in Environmental Studies (EVS), and (ii) Making TCOM a 2-credit course.

The Institute is running the following courses related to Environmental Studies in the UG programmes. These courses are presently   under elective/open category.

Course Code	Title	Credit	Category
1. ESC 205	Environmental Science	4 credits	Elective
2. ENV 301	The Earth System: An Environmental Science Perspective	4 credits	Elective

It is desirable (mandatory?) to have a compulsory course in Environment studies in our program. A 2-credit mandatory course may be started, which can perhaps be followed by more elective courses for those who want to pursue it further.

It has been observed that in TCOM, which is currently a 4 credit course, the core portion can be covered well in 2 credits (i.e. about 5 hours of effort per week) – to make it worthy of 4 credits, some additional work (e.g. gadget/technology review) has been added. This dilutes the focus. The graduating student feedback about the value of this course is also not very strong. It is proposed that this course may be made a 2 credit course. The 2-credits freed in 2nd year may then provide room for the 2 credit ENV course.

Senate may kindly consider and approve the recommendation of the PGC.

26.9 To consider a proposal for Enhancing Student Engagement in Academics and Institute

Keeping in view lack of engagement of many students in academics and other institute activities, a series of steps are proposed in the document placed at ==Annexure-VI, P-41.== These proposed steps are:

  i.   Proposal for making compulsory attendance in first two years
  ii.   Institute Activities Participation (IAP) by students in first two years
  iii. Student counseling for first year students
  iv.   Induction Program for incoming students
  v.   End of semester feedback by students

Senate may kindly consider and approve the proposal for implementation of the steps/guideline proposed in the aforesaid document.

26.10 To consider a proposal for Improving Support for Courses for improved Teaching and Learning

For strengthening the Teaching and Learning (T&L) in courses, particularly core courses, it is important to have strong support from Tutors and TAs. Without good support, high quality T&L is not feasible. Accordingly, to help improve this situation, a number of steps are proposed for implementation with effect from Monsoon 2014 as per details given in the ==Annexure-VII, P-42.==

Senate may kindly consider these and give further inputs/guidance for implementation of the steps/guidelines proposed in the aforesaid document.

26.11 To consider modification of PG Regulation No.14 (7) regarding issue of Provisional Certificate pending award of actual Degree in a regular Convocation

PG Regulation No.14 (7)   regarding issue of Provisional Certificate provides as under:

"Upon a satisfactory report from the Dean, Academic Affairs, the academic senate may recommend the award of the MTech degree to the student. While pending the actual award of the degree in a regular convocation of the Institute, a provisional certificate may be granted by the Dean, Academic affairs only after the recommendations from the academic senate."

In the past the students completing the program have been issued on demand the course completion certificate to facilitate them taking admission or joining the job; the provisional certificates have been issued only after the Senate approved the result. Recently in a case the student informed that a foreign university to which he was seeking admission was asking for provisional certificate. Considering the emergent requirement, the provisional certificate was issued with the approval of the Chairman, Senate. Since similar situation might arise in future, it is proposed to modify the existing regulation as under:

"Upon a satisfactory report from the Dean, Academic Affairs, the Academic Senate may recommend the award of the MTech degree to the student. While pending the actual award of the degree in a regular convocation of the Institute, a provisional certificate may be granted by

the Dean, Academic Affairs only after the recommendations from the Academic Senate." **However, in urgent cases the Chairman, Senate may authorize the Dean, Academic Affairs to issue the provisional certificate on merit of the case.**

It is also proposed that similar provision may also be made in the UG regulation for the benefit of B.Tech students.

Senate may kindly consider and approve the above proposal.

26.12   To consider the effective date of registration for the Ph.D. students joining in the middle of a Semester

Currently the Ph.D. students generally register the program from the start of Monsoon or Winter Semester. However, those selected under rolling admission or those who opt for change of program join on different dates in between the semesters. While they start working from the date of joining and get fellowship, if eligible, they are unable to do academic registration. It is therefore, proposed that Ph.D. students who join the Institute after the last date of registration i.e. in between the Semesters their effective date of registration for the purpose of academic registration (course or thesis) may be from commencement of next semester including Summer Semester.

Senate may kindly consider and approve the above proposal. Once approved, this may be suitably added in the regulations in PG manual.

26.13   To approve the Academic calendar for Summer Term 2014
A copy of the Academic Calendar for Summer Semester 2013-14 will be placed on the table for approval.

26.14   To approve the Academic calendar for Monsoon Semester 2014
A copy of the Academic Calendar for Monsoon 2014 will be placed on the table for approval.

26.15   To consider a proposal for modification of PG Regulation 12(2) b regarding minimum continuing CGPA requirement for Ph.D. program.

PG Regulation 12(2) b. regarding minimum continuing CGPA requirement for Ph.D. program currently provides as under:

"b. The minimum continuing CGPA is 7.0. If the CGPA falls below this, or the student is not progressing well in his/her research, then based on the recommendations of the adviser, he/she may be placed under warning or may be asked to shift to MTech program or leave."

In order to make it more clear it is proposed to modify PG regulation 12 (2) b. as follow:

b. The minimum continuing CGPA is 7.0. If the CGPA falls below this, he/she may be asked to shift to MTech program or leave."

Senate may kindly consider and approve the above proposal.

26.16 **To consider a proposal for modification of UG Regulation 3 and PG regulation 4 (4) regarding admission of Non-degree students**

UG Regulation 3 and PG regulation 4 (4) regarding admission of Non-degree visiting students currently provides as under:

"A non-degree student is a student registered for a degree in a recognized university/ institute in India or abroad and who is officially sponsored by that Institute/university to complete part of the academic requirements at IIIT-Delhi. Such students may do courses or projects in IIIT-D, and will be given transcripts for the academic work carried out at IIIT-Delhi. During their stay at IIIT-D, such students will also be governed by all academic and disciplinary rules of IIIT-Delhi. Credits earned by a non-degree student at IIIT-Delhi cannot be applied towards any degree/diploma offered by IIIT-Delhi at any time. The admission to non-degree status is decided on a case to case basis. The applications are received by the Dean, Academic Affairs."

Recently the detailed rules and regulations have been framed for regulating the admission of non-degree visiting students, a copy of which is placed at ==Annexure-VIII, P-44.== Accordingly, the existing UG and PG regulations cited above are proposed to be modified as follow. The modifications are highlighted in bold letters:

A Non-degree Visiting Student is a student registered for a degree in a recognized Institute/University in India or abroad **who has official permission from that Institute/University to attend classes, to carry out research or to avail himself of laboratory or other academic facilities at IIIT Delhi for a period not exceeding six months. He/She** will be given transcripts for the academic work carried out at IIIT-Delhi. **In case the student is later admitted as a regular student in a PG program, he/she may apply for transfer of credits, which can be considered by PGC in the usual way.** During their stay at IIIT-D, such students will also be governed by all academic and disciplinary rules of IIIT-Delhi. **In the case of a student who is not Indian National or Indian citizen, he/she will not be allowed to register for the course without valid passport and proper visa. The Academic Section or the Department may receive such official requests for the provision of Institute facilities and admit such a visiting student on a case to case basis after due sanction from the DOAA**.

Senate may kindly consider and approve the above proposal.

26.17 **To consider a proposal for modifications of UG Regulation 5.7 and PG Regulation 8.6 regarding Summer term registration**

Existing UG Regulation 5.7 and PG Regulation 8.6 regarding Summer term registration provide as under:

UG Regulation 5.7
"Registering in the summer term is optional. A student may register for up to 8 credits of courses that are offered during the summer term. The registration shall be done just before the start of the term. There will not be any late registration in the summer term and a student shall not be allowed to add a course after registration."

PG Regulation 8.6

"Registration in the summer term is optional. But if a PG student is doing some academic work, he/she is required to register. A PG student on financial plan of the Institute is expected to remain in the Institute and work during the summer term even if he/she is not registered, though he/she may take vacation as per rules. A student may register for up to 4 units of thesis work."

In order to provide more flexibility and clarity for summer term registration, it is proposed to modify the aforesaid UG/PG regulations as follow. The proposed modifications/changes are highlighted in bold letters:

Revised UG Regulation 5.7

Registering in the summer term is optional. A student may register for up to 8 credits of courses that are offered during the summer term. **Out of this 8 credits a student may be allowed up to 4 credits for IP/IS/UR/BTP except that students of the graduating batch may be allowed up to 8 credits for BTP.** The registration shall be done just before the start of the term. There will not be any late registration in the summer term and a student shall not be allowed to add a course after registration.

Revised PG Regulation 8.6

Registration in the summer term is optional. But if a PG student is doing some academic work, he/she is required to register. A PG student on financial plan of the Institute is expected to remain in the Institute and work during the summer term even if he/she is not registered, though he/she may take vacation as per rules. A student may register for up to **8 credits of which up to 4 credits may be for thesis work.**

Senate may kindly consider and approve the above proposal.

26.18 Issuing certificates for Continuing Education Programs (CEP)

Continuing education programs (CEP) are important for IIIT-Delhi – they can help generate revenue as well as help in building relationships with industry and government. Institute is now ready to start CEP programs - guidelines for these are being framed separately and will be approved by FC/Chairman. In CEP programs certificates are given to the delegates of approved courses, normally signed by the CEP coordinator and the Course Coordinator.

It is proposed that for approved CEP programs,Institute may issue suitable certificates to attendees/delegates of these programs. The format of the certificate may be similar to what IITK/IITD use.

Senate may kindly consider and approve the above proposal.

26.19 To consider a proposal for modification of grading scheme

IIIT-D UG Regulation 6.3 dealing with grading scheme of the Institute, inter alia, provides as under:

> "(5) The F and X grades are "fail" grades and the student shall be required to repeat the course. If the course is a compulsory course, the same course shall be repeated in

another semester/summer when the course is offered. In the case of an elective/optional course, the student can replace the course by another elective course.

(7) An F and X grade obtained in any course shall be reflected in the grade sheet. However when the course is replaced or repeated, the new grade will be used for computation of the CGPA and the older F/X shall not be counted."

As per the past practice, the ERP immediately calculates the CGPA based on new grade of a student who repeats a compulsory (core) course whereas if the student fails in an elective and does another one the ERP calculates the SGPA as per revised grade but does not calculate the CGPA in that semester. The CGPA in their case is calculated only at the end of the program. Consequently, the student carries lower CGPA till the end of the program even though he/she may have completed/replaced the failed elective in the 2nd or 3rd Semester. Such students are at disadvantage when they have to appear for placement etc.

In view of the above it is proposed to add the following to the existing regulation:

'F' grade shall not be counted in the calculation of CGPA, however, it is counted in the calculation of SGPA. This practice is also being followed at IIT Delhi.

Senate may kindly consider & approve the above proposal.

26.20   To re-discuss the concept and structure of Minor in the Undergraduate Program

Senate had initially discussed the structure of minor in 2009 as under:

> **"For a minor in a <discipline>, the student must do 12 additional credits, and must do at least 12 credits of courses in <discipline> and should do his/her BTP in <discipline>."**

However, since the time this was passed, more inputs have come for improving the framework for minor. Specifically, it has been noted that in most places, Minor does not entail additional credits for graduation - such requirements are generally for second majors. Hence, it is proposed that the requirement for additional 12 credits be dropped. The rest of it will remain the same.

While formulating the above proposal a question has arisen whether BTP should be allowed in a minor area. If so, should there be any credit limit for the BTP?. This requires detailed deliberations.

Senate may kindly consider and approve the above modification.

26.21   To consider a proposal for starting Minor in Economics

We have received a proposal for starting **minor** in **Economics** for B.Tech. CS/ECE students. The salient features of the proposal are contained in the proposal placed at Annexure-IX, P-47 As per the proposal a BTech student can earn a minor certification in Economics by completing 16 credits of regular courses, and a further 4 credits through additional

coursework, independent study (IS), undergraduate research (UR), or independent project (IP), for a cumulative 20 credits in Economics.

Senate may kindly consider the above proposal and take appropriate decision.

26.22   To consider a proposal for starting minor in Computational Biology

We have received a proposal for starting **minor** in **Computational Biology** for B.Tech. students. As computational Biology is an interdisciplinary area, it is well suited for a minor for interested students from computer science and electronics background. The salient features of the proposal are detailed in the proposal placed at Annexure-X, P-48.

The proposed requirements for a Minor in Computational Biology for BTech students are:

- A student must complete 16 credits (4 courses) from the core courses of the MTech(CB) program. In addition, a student must do 4 credits of IS/IP in Computational Biology.
- The student may also do a BTP in Computational Biology
- All other requirements for BTech (in CSE or ECE) must be satisfied.

Senate may kindly consider the above proposal and take appropriate decision.

26.23   To consider recommendation of PGC regarding completion of Comprehensive examination by the Ph.D. students

PG Regulation 15 (7) regarding Comprehensive examination of the Ph.D. students currently provides as under:

"The aim of the comprehensive examination is to check the understanding of the PhD students about his/her area of research. (Though a comprehensive traditionally was meant to check that the student has sufficient breadth, the Institute feels that this type of breadth requirement should be fulfilled through courses, and the comprehensive should be used to test the "comprehension" of the candidate about his/her main area of research.) For the comprehensive, the students shall prepare a "survey report" (much on the lines of papers in ACM Surveys) on his/her area of work, and will give a seminar on it. The survey report will be submitted to the committee formed for the comprehensive exam by the PG Committee. The seminar should be open for all to attend. After the seminar, the committee may examine the candidate further and will submit its report regarding the outcome of the comprehensive to the PG Committee. A student is expected to complete his/her comprehensive within first two years of joining. A student will get at most two attempts to complete comprehensive examination requirements. Details regarding the various steps of the comprehensive exam will be as decided by the PG Committee"

After detailed discussions on Comprehensive examination the PGC has agreed to the following recommendations made at the Faculty meeting held on 21.8.2013:

"8.5 Students must take the comprehensive exam no later than 5 semesters or after 16 credits of courses. They must present a complete literature survey, research proposal and research plan. If they fail the exam, they are allowed an additional half a semester to retry."

After this proposal by PGC, an alternate suggestion has emerged which also agrees that PhD students be asked to present a research proposal and plan. But instead of one step which combines the comprehensive and research proposal, it proposes two milestones. In this suggestion, the Comprehensive remains as is, but an additional step/milestone "Research Proposal and Plan" is proposed to be added. The guidance will be that normally this step should be done before the end of 3 years.

Senate may kindly consider and decide.

26.24 To consider recommendation of the PGC regarding plans for rolling Ph.D. admissions.

There is broad consensus in the PGC to consolidate the current rolling admissions into the PhD to some fixed times of the year. The proposal is to fix these to two slots (other than that reserved already for regular admissions).

There are some administrative and academic advantages to this. The rolling admissions would also be utilized for conversions of our MTech's to PhD, which can only happen at the end of semesters. It may make the interviewing process somewhat more efficient, with several candidates; and finally, we would be in a position to assess candidates slightly better in comparison, rather than as once-off applications.

In July's process, we may also invite open rolling candidates - some students who may have missed their admission chances in our April admission. This would also address the vacancies caused due to dropouts from our regular round offers.

In view of above it is proposed to hold rolling admissions in: December, April (regular round), and July. One additional slot can be introduced in October, if needed.

Senate may kindly consider and approve the above proposal.

26.25 To consider recommendation of the PGC for amendment in the M.Tech. regulation regarding evaluation of Scholarly paper.

PG Regulation 14 (5) Regarding M.Tech. Thesis/Scholarly Paper Evaluation Committee provides as under:

"A thesis/paper shall be evaluated by an evaluation committee which shall consist of the supervisor(s) and two other faculty members/examiners for the MTech thesis, and the supervisor(s) and one other faculty member/examiner for a Scholarly paper. For a thesis, it is desirable to have one of the committee members from outside the Institute. The committee must be approved by the PG Committee."

Further, regulation 14 (6) (b) provides as under:

"For the scholarly paper, no defense is required. It is evaluated by the committee and the recommendations, signed by the advisor and examiner, will be sent within two weeks of submission of the paper to the PGC Chair."

The PGC has discussed the above regulations and has recommended for amendment as follows:

"Scholarly papers will be evaluated and signed by the advisor(s) and the result communicated to the Academic Administration."

Accordingly aforesaid PG Regulation 14 (5) and (6) are proposed to be amended as under:

Regulation 14 (5)

An M.Tech. thesis shall be evaluated by an evaluation committee which shall consist of the supervisor(s) and two other faculty members/examiners.. For a thesis, it is desirable to have one of the committee members from outside the Institute. The committee must be approved by the PG Committee.

The Scholarly paper shall be evaluated by the Supervisor (s).

Regulation 14 (6)

For the scholarly paper, no defense is required. It will be evaluated and signed by the advisor(s) and the result communicated to the Academic Administration.

Senate may kindly consider and approve the above proposal.

26.26 To consider a proposal to allow M.Tech. students to undertake a Capstone Project of 4 or 8 credits in lieu of a Scholarly Paper.

MTech students have now an option to do MTech with Thesis (16 Credits) or with SP (8 or 4 Credits). Further, the Senate at its 25th meeting held on 19.2.2014 has also agreed for giving up to 8 credits for doing internship/Industry Project in approved Industry/research lab./academic labs of 6 months or more.

The (Chair) PGC now proposes another option to allow students to undertake a Capstone Project of 4 or 8 credits in lieu of a Scholarly Paper. The projects are usually defined by one or more faculty members who will act as supervisors, but can include supervisors from industry or other academic institutions. Students can undertake to do a project singly or in a team. The deliverables of the project will be clearly specified by the supervisors, as will the grading scheme to be adopted in meeting these deliverables. The grades for members in a team will be decided by the supervisors of the project, based on their assessment of the work done by the members, and the extent to which they have been able to meet the deliverables.

Senate may kindly consider the above proposal and decide.

26.27 **To consider recommendation of UGC regarding revision of requirements for Branch transfer of B.Tech. students from ECE to CSE and vice versa.**

The Senate at its 21st meeting held on 13.2.2013 vide item No.21.4 had considered the recommendation of the UGC and approved the proposal for Branch transfer of B.Tech. students from ECE to CSE and vice versa. Relevant extracts from the branch transfer rules, approved by the Senate, are given below:

- "Branch transfer is possible only after the grades of the second semester are out. However, students may apply or be requested to apply at an earlier stage for the same.
- For the transfer from ECE to CSE the grades in both IP and DSA should be at least a B-.
- For the transfer from CSE to ECE there are no course specific requirements. The students satisfying the branch transfer criteria will form a priority list based on CGPA.
- The total number of CSE students should remain within 10 of their initial strength, i.e. between 110 and 130 for CSE, and ECE should be within 40 and 60 for the batch admitted in Aug 2012."

After approval by Senate 12 students (**1 CSE + 11 ECE**) of B.Tech. 2012 entry and **6** students (**1CSE + 5 ECE**) of B.Tech.2013 entry fulfilling the eligibility requirements have been allowed branch transfers.

Keeping in view the experience gained during the last two years the UGC has now reviewed the above eligibility requirements and has suggested the following revised criteria for branch transfer for consideration of the Senate:

Requirements for transfer from ECE to CSE:
a B- or better grade in DSA and IP and no F in the entire first year.

Requirements for transfer from CSE to ECE:
a B- or better grade in DC, Math1 and PS (Math2), and no F in the entire first year.

If the number of applications goes beyond the number of available seats, priority can be based on CGPA.

Senate may kindly consider the above recommendation of the UGC and decide.

26.28 **To consider the cases of BTech 2010 Batch students who are short of credits for fulfilling the graduation requirements**

There are 14 students of 2010 Batch who are not satisfying the graduation requirements. A list of the students with remarks will be placed on table.

26.29 Recommendations for various Medals/Awards

The committee Chair will present the recommendations.

Chancellor's Gold Medal:

(Awaited)

All Round Performance Medal:

The Committee does not recommend any candidate strongly, but has identified two candidates for consideration, if desired. The Senate may consider the recommendations, as well as the two candidates, and decide whether to give the medal or not, and if so, to which of the two candidates identified by the committee.

Best BTP award:
Engineering Track:

Apoorv Narang. For the project "Backpack" led by him.

Research Track:

No award to be given, as the only nominated student did not turn up.

Entrepreneurship Track:

Aditya Kumar for the project "Ingage" led by him.
Best MTech thesis award

(Awaited)

ITEMS FOR INFORMATION

26.30 Holding 3rd Convocation on 31.08.2014

3rd Convocation of the Institute is scheduled to be held on 31st August,2014 (Sunday). Mr. Sunil Kant Munjal of Hero Motocorp Ltd. will be the Chief Guest.

26.31 Contingency grant to Ph.D. scholars based on qualitative level of performance

The policy for contingency grant to Ph.D. scholars needs to be articulated clearly. It has been decided that the Ph.D. students of the Institute will be given Rs.10,000 as contingency grant in the first year. From Second year onwards they will be given contingency grant based on of the "grade" in their yearly review as follow:

Excellent	Rs.20,000
Good	Rs.15,000
Average	Rs.10,000
Below Average or Poor	Rs. 5,000

The unutilized contingency grant will be carried forward.

26.32 Schedule/Steps for M.Tech. thesis evaluation and defense

Schedule/Steps for M.Tech thesis evaluation and defense are detailed in ==Annexure-XI, P-49== for information.

26.33 Admission of Foreign students/NRI through DASA

From the academic year 2014-15 the admission of foreign students / NRI will be through DASA

26.34 Approval from AICTE

We have applied for Approval of AICTE for change if site, two additional PG programs i.e. M.Tech. in Mobile Computing and M.Tech. in ECE (VLSI) and extension of approval of the existing programs for the year 2014-15. The expert committees have visited the permanent campus twice and the approval is awaited.

26.35 Application for NAAC Accreditation

Action is being taken for collection of data from the concerned departments/Sections/faculty for uploading on the NAAC website.

26.36 Application for NBA Accreditation

Approval from NBA has been received for online submission of e-SAR and the action is being taken for collection of data from the concerned departments/Sections/faculty for uploading on the NBA website.

26.37 Joint counseling with DTU and IGDTUW

From the academic year 2014-15 the admission to our B.Tech. Programs will through joint counseling with DTU and IGDTUW.

26.38 Guidelines for Visiting Students

A copy of the guidelines for visiting students approved by the Director is placed at ==Annexure-VIII, P-44== for ratification.

26.39 Writ Petition (C) No.3026/2014 and Writ Petition (C) No. 3858/2014 filed by Mr. Madhur Hasija, Ph.D. student

Mr. Madhur Hasija had filed Writ Petition (C) No.3026/2014 seeking order for allowing him to continue PhD Programme and payment of scholarship. In the hearing held on 15.5.2014 he withdrew his writ petition with the liberty from the Hon'ble High court to make a request to IIITD to change the mentor. Subsequently, he made an application to the Director for change of his Ph.D. mentor. Since his progress in the two reviews were poor, his request was not agreed to. Thereafter he filed another Writ Petition (C) No. 3858/2014 requesting for similar relief. The matter came up for hearing before a Vacation Judge on 4 June 2014. The Hon'ble

Delhi High court has allowed him to continue as Ph.D. student till next date of hearing i.e. 3.7.2014. The Institute, in the meantime, was required to file its reply to the petition which has been done.

26.40 Admission to Data Engineering specialization put on hold

Admission for Data Engineering specialization for the academic year 2014-15 has been put on hold due to non-availability of faculty

26.41 Any other item with permission of the chair.

Minutes of the 25ᵗʰ Senate Meeting of IIIT-D held on 19ᵗʰ February, 2014 at 02.15 PM in the Senate Room, B-wing, R&D Building, IIIT-D Campus, Okhla Industrial Estate Phase-III, New Delhi

Following members were present:
- Prof. Pankaj Jalote   -   Chairman
- Prof. K.K. Biswas   -   External Member
- Dr. Kaushik Saha   -   External Member
- Prof. Samaresh Chatterji   -   Ex-Officio Internal Member
- Prof. Ashwin Srinivasan   -   Ex-Officio Internal Member
- Dr. Astrid Kiehn   -   Ex-Officio Internal Member
- Mr. Hemant Kumar   -   Ex-Officio Internal Member
- Dr. Angshul Majumdar   -   Internal Member
- Dr. Mohd. S. Hashmi   -   Internal Member
- Dr. Shreemoy Mishra   -   Internal Member
- Dr. Srikanta Bedathur   -   Internal Member
- Dr. Sujay Deb   -   Internal Member
- Mr. Utkarsha Bhardwaj   -   Student's Representative
- Mr. Dipto Sarkar   -   Student's Representative
- Mr. Ashwani Kumar Kansal   -   Secretary

Following members attended via telecon:
-

Special Invitees:
- Dr. Pushpendra Singh   - Faculty - IIITD
- Dr. Raj Ayyar   - Faculty - IIITD
- Dr. Vivek Bohara   - Faculty - IIITD
- Dr. Subhasis Banerjee   - Faculty - IIITD
- Dr. Shobha Sundar Ram   - Faculty - IIITD
- Dr. Anubha Gupta   - Faculty - IIITD
- Dr. Alexander Fell   - Faculty - IIITD
- Mr. K.P. Singh   - In-charge -Academics
- Ms. Sheetu Ahuja   - AM-Academics
- Mr. Ashutosh Brahma   - Jr. Manager – Academics

TWENTY- FIFTH (25th) MEETING OF SENATE OF IIIT-DELHI
MINUTES OF THE MEETING
(held on 19th February, 2014)

25.1   Opening remarks of the Chairman

The Chairman welcomed all to the meeting. Thereafter, agenda items were taken up for discussions.

25.2   Confirmation of minutes of the 24th meeting of the Senate held on 13th Novermber,2013

Since there were no comments, the minutes of the 24th meeting were confirmed.

ACADEMIC & STUDENTS MATTERS

25.3 To consider automatic yearly increase in the fellowship of PhD students

Chairman, Senate apprised the members of the existing practice of having standard increase in the monthly Ph.D. fellowship, though there is a provision for higher stipend based on performance. The Senate agreed that the existing procedure may be continued, and the related regulation and the office order be modified accordingly.

Arising out of discussions it was clarified that whole amount of fellowship of higher value like PM fellowship and TCS fellowship to be disbursed to the concerned students. However, where the rate of a sponsored fellowship is less than the institute fellowship, or where the stipend is not explicitly specified, the student concerned will be given at the rate of institute fellowship.

25.4   To consider a proposal to treat "Teaching Assistantship" as a 0 credit course and award of grades to Teaching Assistants (TAs)

Chairman, Senate apprised the members of the background of the proposal. The Chairperson, UGC (Dr. Astrid Kiehn) also informed that the matter has been considered by the UGC and it has been recommended to have only two grade i.e. 'S' or 'X' grade for the TA work. After detailed deliberations the Senate approved that from Winter Semester 2014 onwards, the "Teaching Assistantship" be treated as a '0' credit course, which will show up in the transcript of MTech and PhD students. This will encourage all to take TAship with the seriousness it deserves - it will also help students to show officially that they were TAs for 'n' semesters, which can be a plus for placements/careers. The guidelines given were also approved for implementation.

25.5   To consider a proposal to treat "Refresher Module" as a 0 credit course and award of grades for the same

Chairman, Senate informed that at IIITD the new MTech (CSE) students, coming from a variety of educational systems, were often found facing some difficulties in the initial months. To help further strengthen the foundations of incoming students in some areas, the institute had decided to start special refresher modules from the Summer 2013 with the help of some senior students under the overall guidance of faculty members of IIITD.

Subsequently a Refresher Module on "Introduction to C" was also conducted in December 2013 for BTech students.

After detailed deliberations the Senate agreed to the proposal to treat Refresher module course as a '0' Credit Course with the following guidelines:

a. The credit for the Refresher Module will be 0 (zero)

b. There will be two possible grades i.e. S (satisfactory) and X (unsatisfactory).

c. Satisfactory completion of the refresher module will be reflected as footnote in the transcript.

The above scheme will be tried for two years for M.Tech.(CSE) students on experimental basis.

Arising out of discussions, the ECE faculty were requested to work out the refresher modules they would like to introduce for the M.Tech. ECE students.

25.6 To consider a proposal for giving an option to MTech students for doing MTech with Thesis/ SP/ Industry Internship.

Chairman, Senate apprised the members of the background of the proposal. He informed that the MTech students currently have an option to do MTech with Thesis (16 Credits) or with SP (8 or 4 Credits). The internship of 6 months or more in the industry will have advantage since it will allow another option to those who are not finding supervisors for SP, and can be beneficial for jobs also. After detailed deliberations the Senate agreed to the proposal for giving 8 credits for doing internship in approved Industry/research lab./academic labs of 6 months or more. The student doing the internship will have to write a report, which will have to be approved by the internship supervisor in the company. It was agreed that PGC will work out operational details. Institute should also try to have MOUs with some companies for this internship.

It was also agreed that while this option may be started, there is a need to provide guidelines for a Scholarly paper. The PGC was requested to evolve these guidelines.

25.7 To consider the proposal to review the existing grading scheme

This item was withdrawn keeping in view the decision taken to award only 'S' or 'X' grade for TAship (Item. 25.4)

25.8 To consider and approve the PhD Degree format.

Chairman, Senate   presented   some   sample   Ph.D.   degree   formats   of   other Universities/Institutes including some US Universities. After detailed deliberations the Senate approved the Ph.D. Degree format as per Appendix-I

25.9 To consider and approve the Dual Degree format.

Chairman, Senate   presented   some   sample   dual degree formats of other Universities/Institutes.   After detailed deliberations the Senate approved the Dual Degree formats as per <mark>Appendix-II and Appendix-III</mark>

APPEALS

25.10   To consider the request of Shikhar Singhal (2011102) for considering the audit courses registered during the period of suspension for the purpose of grade improvement.

Chairperson, UGC informed that Shikhar Singhal, Roll No. 2011102 has withdrawn his request. Hence, this item was withdrawn.

ITEMS FOR INFORMATION

25.11   Approval from AICTE

Registrar apprised the members of the present status with regard to change of site and sanction of ECE programme. He also informed that as per latest developments the AICTE may not handle the cases of approval process; the same may perhaps be handled by University Grants Commission (UGC). Further communications in this regard are awaited. The Senate noted the position.

25.12   Application for NAAC Accreditation
Registrar apprised the members of the action being taken for collection of   data from UGC/PGC and the concerned departments/Sections/faculty for uploading on the NAAC website.

25.13   Application for NBA Accreditation
Registrar informed that approval from   NBA has been received for online submission of e-SAR and   the action is being taken for collection of   data from UGC/PGC and the concerned departments/Sections/faculty for uploading on the NBA website.
25.14 List of students who completed Graduation requirement in December 2013

The list of students who completed Graduation requirement in December 2013 was approved and recommended to BOG for grant of Degree.

Keeping in view the past experience the Senate also decided that the results of the students who complete the degree requirements in December may be verified and put up to Chairman, Senate is authorized to approve on behalf of Senate. The Degree and the scroll of such students may then be got signed from the Chairman, BoG. The approval so accorded by the Chairman, Senate may be reported to the Senate for ratification in the due course.

25.15   To apprise the Senate of the Course Registration status:
The Senate noted the position of courses being taught in Monsoon 2014 as well as Course wise registration of students.

25.16   Status of admissions:

> **Rolling PhD admissions:**

The Senate accepted the following newly admitted student under Rolling PhD:

Sl.No.	Roll No.	Program	Name	Date of Joining
1	PhD1307	CSE	Haroon Rashid	6 Jan 2014

> **Migration from MTech to PhD:**

The Senate accepted the migration of following students from M.Tech. to PhD:

Sl.No.	Roll No.	Program	Name	Date of Joining
1	MT11012	CSE	Srishti Gupta	1 Dec 2013
2	MT12067	CSE	Milan Jain	6 Jan 2014
3	MT11001	CSE	Abhishek Kumar	6 Jan 2014

25.17   To ratify the decision taken by Chairman Senate for Award of PhD Degree

The Senate ratified the decision taken by Chairman, Senate for approval of PhD Thesis Defense (Viva Voce) report of Mr Kuldeep.

25.18   To ratify the decision taken by Chairman Senate for Award of BTech Degrees

The Senate ratified the decision taken by Chairman, Senate for award of B.Tech. Degrees to the following students:

 (i) Pranav P Raj - 2009032
(ii) Tarang Chugh – 2009050

25.19   Summary of Grade Change information for Monsoon Semester 2013:

Chairman apprised the members of a few changes in the grades in the recently concluded Monsoon Semester 2013.   The Senate noted the changes for information.

25.20   Summary of PhD evaluation

Chairman, PGC   presented the summary of reports received from the Ph.D. advisors. The Senate noted the position.

25.21   Recommendation/Report by PGC:

Chairman, Senate apprised the members of the existing PG regulation 6 (2) for change of program from Ph.D. to M.Tech. and payment of difference of fee/stipend. He also informed of the recommendation of the PGC in this regard. After detailed deliberations the Senate agreed to the recommendation of PGC with some minor changes as under:

> If a PhD student fails his or her first two reviews, then the PGC may propose either that he or she leaves the institute; or enroll in the MTech program. If the latter, then usually full MTech fees would be payable by the student, along with any differences in stipends. In some cases, the stipend difference may be reduced, waived or deferred on case by case basis.

Arising out of discussions it was also decided that a warning letter will be issued by the Academic Section to students when they fail the first review which should also explain the above.

25.22   Recommendation / Report by UGC:

Recommendation of UGC with regard to grading for TA work is noted in Item No.25.4

25.23   Allocation of seats for admission to M.Tech. programs

Keeping in view the past experiences it was decided to allocate seats for admission to M.Tech. programs in both disciplines as follow with a provision for an increase up to 10% in each specialization to take care of the drop outs:

CSE

Information Security	- 20
Data Engineering	-20
Mobile Computing	-20
General	-20
Total	80

ECE

VLSI & Embedded System	-20
Communication & Signal Processing	-20
Total	40

The meeting ended with a vote of thanks to the Chair

Roll No…………

Indraprastha Institute of Information Technology Delhi

hereby confers the degree of

Doctor of Philosophy

On

-------XYZ-------

Thesis title: ---

Given at Delhi on _____

Chairman, Board of Governors   Registrar   Director & Chairman, Senate

Roll No…………

Indraprastha Institute of Information Technology Delhi
hereby confers the degree of

Bachelor of Technology in Computer Science and Engineering

on

-------XYZ--------

on having   successfully completed the prescribed requirements

Given at Delhi on --------

Chairman, Board of Governors   Registrar   Director & Chairman, Senate

Roll No…………

Indraprastha Institute of Information Technology Delhi
hereby confers the degree of

Master of Technology in Computer Science and Engineering

on

-------XYZ--------

on having   successfully completed the prescribed requirements under the dual degree Program

Given at Delhi on --------

Chairman, Board of Governors   Registrar   Director & Chairman, Senate

Minutes of the Special meeting of the Senate of IIIT-D held on 28th May, 2014 at 03.00 PM in the Senate Room, B-wing, R&D Building, IIIT-D Campus, Okhla Industrial Estate Phase-III, New Delhi

Following members were present:

- Prof. Pankaj Jalote   -   Chairman
- Dr. Kaushik Saha   -   External Member
- Prof. Samaresh Chatterji   -   Ex-Officio Internal Member
- Dr. Astrid Kiehn   -   Ex-Officio Internal Member
- Mr. Hemant Kumar   -   Ex-Officio Internal Member
- Dr. Shreemoy Mishra   -   Internal Member
- Dr. Sriram K.   -   Internal Member
- Dr. Sujay Deb   -   Internal Member
- Mr. Ashwani Kumar Kansal   -   Secretary

Special Invitees:

- Dr. Subhadip Raichaudhuri   - Faculty - IIITD
- Dr. Raj Ayyar   - Faculty - IIITD
- Dr. Debajyoti Bera   - Faculty - IIITD
- Dr. Vikram Goyal   - Faculty - IIITD
- Dr. Saket Anand   - Faculty - IIITD
- Dr. Anubha Gupta   - Faculty - IIITD
- Mr. K.P. Singh   - Academic Incharge
- Ms. Sheetu Ahuja   - AM-Academics

SPECIAL MEETING OF SENATE OF IIIT DELHI
MINUTES OF THE MEETING
(held on 28th May, 2014)

Opening remarks of the Chairman

The Chairman welcomed all to the meeting. Thereafter, agenda item was taken up for discussions.

Item 1: To consider a proposal to start a new MTech Program in Computational Biology (CB) in IIIT Delhi

Chairman, Senate apprised the members of the background of the proposed new MTech Program in Computational Biology (CB). Thereafter, Dr. Sriram K. presented the proposal and explained the salient features of the new MTech program. He also clarified and answered the queries made by the members.   After detailed deliberations the Senate agreed to the proposal with a maximum intake of 24 subject to incorporating the changes in the light of the suggestions made by members at the time of the meeting. Dr. Sriram was requested to put up the revised proposal to Chairman, Senate who was authorized to approve the revised proposal on behalf of the Senate.

Dr. Sriram has submitted the revised proposal after incorporating the suggested changes and a copy of the revised proposal is placed at **Appendix-I**.

The Senate also discussed the proposed regulations for the new M.Tech. program and approved the same after making a few minor changes. A copy of the regulation is placed at **Appendix-II**.

The meeting ended with a vote of thanks to the Chair

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Proposal to start an MTech Program in Computational Biology (CB) in IIIT Delhi

The genomic revolution in biology enables one to answer many questions in medical sciences like personalized medicine, the etiology of diseases like cancer, HIV, SARS etc, etc. However, answers to these questions are impossible without the support of powerful computational and statistical tools that helps to understand and uncover the underlying network design principles responsible for diseases. With the advent of new biotechnological techniques, massive amounts of omics data are generated at a rapid pace from the experiments and analysis of these data requires tremendous amount of domain knowledge, solid computational background and good programming skills. The entry cost of this highly interdisciplinary field consists of a good amount of understanding of molecular biology, genomics, algorithms, programming, statistical computation, machine learning, stochastic processes, and other mathematical techniques that underlie biological design principles. Therefore, it is imperative to stitch biology, statistics, algorithms and mathematical models to analyze large-scale genomic and biological data.

Though the need and potential applications of computational biology and bioinformatics is tremendous in India, currently very few groups have strength and capability in this area. IIIT-Delhi, with its strong focus on research, and already having a good faculty in various CS and EE areas, is well suited to build a strong group in computational biology. Such a group in Delhi will benefit strongly from the location as Delhi has many organizations focusing on Biology – some of whom will clearly be interested in partnering with a strong computational biology group

The computational biology program designed at present will emphasize more on theory and computing than on the experiments in wet lab. Initially we rule out the wet lab completely and our focus will be on building strong theory courses both fundamental and advanced. These courses are designed keeping computer-science students in mind, since the intake of students for MTech program will be from computer-science engineering. The students will be trained in such a way that they will be suitable to go to either industry or academic research and teaching.

Main faculty in the program: The following faculties will be primarily offering courses and guiding thesis and papers.

- K. Sriram, Systems and theoretical biology
- S. Raychaudhuri, Systems biology, immunology, and Monte-carlo simulations.
- Arnab Bhattacharjee, Biophysics and Molecular modeling
- Sachit Butail, Complex systems

We are also expecting more faculty to join prior to the start of the program in the Monsoon 2014. We have already received good number of applications and recruitment is still going on.

Courses in the program: Students enrolled in the program will be assumed to have the strong understanding of foundational biology courses like cell biology and physiology, mathematical modeling of biological systems, molecular biology, genetics, statistics and inference. Advanced courses depend on the foundational courses, and repeatedly we will revisit foundational courses to include necessary components to introduce new contemporary topics. Below are the lists of courses in a tabular form that we propose to offer initially. L is lecture, T is tutorial and P is practical. These courses will also be redone when we broaden the intake of the students.

No	Course Number	Courses	Nature of the courses/L-T-P
1	Bioxxx	Foundations of biology-I	Prep / Mand course/3-0-0
2	Bioxxx	Foundations of biology-II	Prep / Mand course/3-0-0
3	Bioxxx	Biostatistics	Prep / Mand course/3-1-0
4	Bioxxx	Introduction to mathematical biology	Prep /Mandatory/3-1-0
5	Bioxxx	Computational genomics	Adv/ Elective/3-1-0
6	Bioxxx	Systems biology	Adv/ Mandatory /3-1-0
7	Bioxxx	Algorithms in molecular biology/Graduate algorithms	Adv/Mandatory/3-1-0
8	Bioxxx	Computational neuroscience	Adv/elective/3-1-0
9	Bioxxx	Quantitative genetics	Adv /elective /3-1-0
10	Bioxxx	Biophysics and molecular modelling	Adv /elective /3-0-1

Besides, there will be 16 credits of thesis.

Brief summary of the courses: As our targets for MTech program are computer science graduates with hardly any background in molecular biology, genetics, biochemistry and cell physiology, we propose two foundational courses in quantitative biology to cover up the deficiencies.
 Foundational course-I will cover biochemistry and cell physiology together, in which, we specifically expect to deal with chemical principles guiding biological systems and physiological principles governing cellular functions. We will cover unity and diversity of cells, chemical components of cells, energy and catalysis, protein structure and function, glycolysis and different types of metabolism, and physical biology of the cell. We will be strongly orienting the course towards enzyme kinetics, Hill's equation, ultrasensitvity, feedback loops, and thermodynamics of biological systems. The course will be quantitative in nature. We will offer this course in the monsoon semester.

Foundational course-II will cover molecular biology and genetics, in which we start from classical genetics and move toward molecular biology principles and techniques, and end up with bringing out the relationship between these concepts. Specifically we cover DNA and chromosomes, structure and regulation of chromosomes, DNA replication, repair and recombination, mobile genetic elements, DNA to RNA to protein; transcriptional switches, membrane structure and function, cell signaling, and receptors, and cell division cycle, extracellular matrix and connective tissues, stem cells and cancer. We will offer this course in monsoon semester.

Further, we also propose to offer two courses on mathematical methods in biology and bio-statistical principles. We will offer this course in the monsoon semester.

Mathematical biology will provide solid foundation on the principles governing quantitative study of biological systems. We will cover ordinary differential equations, aspects of dynamical systems theory and partial differential equations as applied to solve biological problems. Importance of master equation based approaches and stochastic simulations will be briefly mentioned (Stochastic simulations will be taught in a separate elective course). In this course, we will address building up of simple and complex non-linear models from the perspective of biochemical kinetic principles. Numerical solution techniques including numerical computation in MATLAB will be discussed. We will offer this course in the monsoon semester.

Biostatistics: We will cover statistical foundations for bioinformatics that include probability distributions, Bayes theorem, expectations, moments, regression, and multivariate statistics for analyzing large-scale biological data. We will also cover advance topics like generalized linear models, machine-learning techniques, statistical network analysis for biological systems and pathways. This course will be pre-requisite to do computational genomics course. We will offer this course in the monsoon semester.

The above-mentioned four fundamental courses will provide students a strong footing to do advanced courses on the systems as well as on the genomics side.

Systems biology: On the systems side, we will offer an advance course in systems biology, which will cover dynamical principles governing gene regulatory networks (GRN's), signaling networks, and metabolic networks. We will specifically cover dynamical systems theories and Boolean network modeling to understand the functions of biological network motifs. We will also introduce PDE models to understand robustness of pattern formation in developmental biology. We will offer this course in the winter semester.

Computational genomics: On the genomics side, we expect to offer a course that will deal with the algorithms in molecular biology. Some of the topics include gene prediction, computational gene hunting, restriction mapping, sequence comparisons, and multiple sequence alignments. We will also cover DNA microarray and proteomic analysis. We will offer this course in the winter semester.

Elective courses: We will offer advance courses as electives and these courses are specialized by the faculties who are carry out research in these areas. Already we have earlier offered computational neuroscience as one of the course and we plan to offer Courses such as kinetic Monte-Carlo simulations, statistical mechanics of biopolymers, and high performance computing in systems and computational biology. We keep adding new advanced elective courses as and when need arises.

Projects: All the core courses will have projects where students will learn to analyze, simulate and interpret the results got from statistical and mathematical models of small and large-scale biological systems. Core courses will also have assignments and we will provide basic programming skills in MATLAB and R for in-silico simulations of bio-mathematical models and genomics respectively.

<u>Professional careers in computational biology:</u> **The students trained in these theoretical courses like mathematical modeling, data analytics, machine-learning in biology, statistics, High performance computing (HPC) will be sufficiently skilled to pursue careers in academics as well as in industries. According to an article in Science, (Computational Biologists: The Next Pharma Scientists, http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2012_04_13/caredit.a1200041) the industries that look out for students with computational biology and computer science background are pharma and biotech.**

Research labs are BIOCON, Reddy's lab, Ranabaxy, IBM research lab, TCS, DE Shaw, etc. Besides, students will be suited to pursue academic research and higher education in various institute of repute in India and abroad.

Members who advised the computational biology program:
- Srinivas Aluru (Georgia Tech)
- Somenath Biswas (IIT-Kanpur)
- Chinmoy Dey (IIT-Delhi)
- Varsha Banerjee (IIT Delhi)
- James Gomes(IIT-Delhi)
- D. Sundar (IIT-Delhi)
- Sharmila Mande (TCS)
- Atul Narang (IBM)
- Priyanjan Pattnaik (Biocon)

Intake of students for MTech(CB) program

This two year MTech program is intended to attract B.Tech students having engineering background in computer science to train them in computational biology. Important pre-requisite is that the students should have excellent programming and mathematical skills. Initially, the overall intake for MTech program will be around 24 students with strong background in CS/IT, and they will be selected on competitive basis. Important eligibility criterion to apply for the MTech(CB) program will be that the students should have cleared the competitive GATE/UGC-CSIR examinations in CS/IT, and have atleast got 75% in their undergraduate /post graduate programs. Those who have cleared GATE will be called for written examinations and interview directly based on certain cut-off marks.

Fee Waiver

As was done with MTech(ECE), the institute should reduce the overall MTech fee by half for students in the first batch being admitted in 2014.

INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY DELHI (IIIT DELHI)

Regulations for MTech in Computational Biology (CB)

Preamble

The genomic revolution in biology enables one to answer many questions in medical sciences like personalized medicine, the etiology of diseases like cancer, HIV, etc. But the answers to these questions are impossible without a support of powerful computational and statistical tools that helps to understand and uncover the underlying network design principles responsible for these diseases. With the advent of new biotechnological techniques massive amounts of genomics data are generated at a rapid pace from the experiments and the analysis of these data requires tremendous amount of domain knowledge, solid computational background and strong programming skills. The entry cost of this highly interdisciplinary field consists of a good amount of understanding of molecular biology, genomics, algorithms, programming, statistical computation, machine learning, stochastic processes, and other mathematical techniques that underlie biological design principles. Therefore it is imperative to stitch biology, statistics, algorithms and mathematical models to analyze and interpret large scale genomic and biological data. Though the need and potential applications of computational biology and bioinformatics is tremendous in India, currently there are very few groups that have strength and capability in this area. IIIT Delhi, with its strong focus on research, and already having a good faculty in various CS and EE, is well suited to build a strong theoretical MTech program in Computational Biology.

Requirements

- For M.Tech in computational biology, a student has to complete 32 credits of course work and 16 credits for thesis, for a total of 48 credits. (There is no Scholarly Paper option for this MTech.)

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

- For the course credit requirements, a student has to complete 24 credits (6 courses) of core courses, and 8 credits (2 courses) of elective courses. The core courses are:
    - Foundations of biology- I
    - Foundations of biology-II
    - Introduction to mathematical biology
    - Biostatistics
    - Systems biology
    - Algorithms in molecular biology/Graduate algorithms

Some of the elective courses that may be offered are given below. This list will change with time:
    - Computational genomics
    - Quantitative Genetics
    - Computational neuroscience
    - High performance computing
    - Complex systems
    - Stochastic simulation in systems biology and biophysics

- In electives, at most 4 credits of "Independent Study/Project" can be taken.

Assistantship and Fee Waiver
- Limited number of Assistantships will be available for MTech students. As specified in the Regulations for MTech/PhD Programs, a student who is offered an Assistantship will be required to do 10-15 hours of academic work per week in-lieu of the Assistantship.

- Limited number of partial or full fee-waivers may be provided.

Leveraging web based delivery for courses

Exploiting Web Based Delivery for Courses

Many universities across the world are now using web based delivery methods in education. And some studies have indicated that f2f lectures are often as effective as those delivered over the web with mixed mode being superior to both. After the success of Stanford's online AI course, there seems to be many more full semester online courses in the offing. This proposal is to start using web-based delivery internally in courses offered by our faculty, as well as leveraging such courses being offered by reputed universities for the benefit of our students. The proposal has two distinct, but related, parts.

Allowing web-based delivery in IIIT-D courses taught by IIITD faculty

Allow faculty members of IIITD to use web lectures, either self lectures taped earlier, or lectures by others, as material for the course for which they are the instructor. Specifically:

● The instructor remains fully responsible for delivering the course including giving assignments, exams, projects, etc and ensuring that post conditions are delivered, and finally giving the grades to students enrolled in the course.

● The instructor can decide how to use these lectures effectively, ensuring that the post conditions of the course are met. However, the amount and nature of use of such lectures should be announced at the start of the course, as part of the course description. If external lectures are to be used, their sources should also be identified in the course description.

● When using web lectures significantly, a mid-semester feedback from the students should be taken to assess their effectiveness, and if the feedback so indicates, their usage should be reduced/stopped /modified for the remainder of the course.

● The scheduled lecture hours for the course will still have to be maintained – however, their use, in light of the use of web delivered lectures can be suitably determined (e.g. an instructor can deliver the "lecture" through the web and then use the scheduled lecture hour for discussion.) Again, this should be announced as part of the course plan.

● Initially, this can be used only for elective courses and PG courses. (Limited use in core courses may be allowed with permission of the UGC.)

● If offering a course which primarily uses lectures of others, the "load" may not count fully and the Instructor should discuss this with concerned authorities regarding the load.

● The UGC/PGC may build further guidelines to ensure effectiveness is maintained.

Note that this also allows the Institute to offer a course in a new area by using primarily lectures on the web, perhaps in areas in which capability of offering the course does not exist within the Institute (though some faculty member has sufficient understanding of the subject to be able to offer the course by using lectures of experts from the web.) This may be used in particular for specialized areas in which there may be a small group which cannot offer the variety of courses needed to prepare a PhD student well for research, or may be used by the Institute to provide options to students which it is not able to provide through the faculty it has. It should be pointed out that this proposal is for using full video lectures and in substantial quantity, and not about using short video clips, or using a couple of lectures to supplement the material, which instructors are always free to employ.

Leveraging free full-semester Courses now being offered by Top Universities

After the success of Stanford's online AI course, there seems to be many more online semester courses in the offing. This type of education – full semester courses by top experts which have assignments, exams, etc – looks ready to explode. This proposal is to have the ability to leverage this material for education at IIITD, by allowing students to take such online courses from "Cyber University" (a name we are giving to all the courses available through the web) and then requesting transfer of credits. Further details of the proposal:

● A student can apply to UGC/PGC to take some course(s) from "cyber university" for which he/she will seek transfer of credits, providing full details about the course he/she plans to take including the assessment and grading methods the course. The UGC/PGC may approve the course if the subject matter is appropriate (e.g. it would have been approved for offering in IIITD), the course length and the amount of work/knowledge is commensurate with the credits being sought, the assessment methods employed are acceptable, the course is being offered by competent people/university, etc. The UGC/PGC may also stipulate the conditions under which the transfer of credits will be granted (e.g. what minimum grade is necessary, what conditions must be fulfilled for submission of assignments, etc), and may set suitable measures to ensure integrity (e.g. appoint some IIITD observer who may even conduct an exam to ensure that the course is being done with academic integrity by the student, ask student to submit a copy of all the assignments, etc.)

● A student may take the approved course, and after completion, if the criteria established for credit transfer are fulfilled, can apply for the same. If the criteria are not satisfied, credit transfer may not be granted.

● A student can earn no more than 8 credits by taking courses from the "cyber university", and no core course may be done through this means.

● UGC/PGC may establish other guidelines to ensure effectiveness of this mode.

● Transfer of credit rules of the Institute will apply. I.e. while the credits are counted, the grade earned in the course from Cyber University is not considered for the CGPA computation.

Rules for registration of Online Courses

IIIT-Delhi has evolved a system for allowing students to take online courses. Students can take advantage of the increasing amount of such courses made available by reputed universities across the world to complement the courses offered in the institute.

As of now, B.Tech. students are allowed to register for online courses. Rules regarding the same are given below.

- Students can register for online courses which provide a certificate of completion at the end.
- For online courses only S/X grades will be issued (which will not be counted towards computing of CGPA but will be counted towards the number of credits required for degree).
- Online courses cannot be done in the first four semesters. In general, permission will not be granted for the fifth semester as students should do the core courses offered by the institute.
- Per semester at most one S/X course will be permitted and at most two in the entire program. Moreover, per semester, at most one course out of IS/UR/IP/OC is permitted -- however, this rule may be relaxed in extraordinary cases.
- Registration for online courses requires the permission of the Dean/Chair of UG Committee.
- Permission will not be given for courses which are also offered regularly by the institute.
- To register for an online course an OC registration form has to be submitted duly signed by a supervising faculty. The supervising faculty will decide how the course will be evaluated and will be responsible for assigning a grade.

UGC has pre-approved the following online courses. Other online courses need to be approved by UGC before becoming available for registration.

Course Title	Area	Offered By	Credits	Pre-Requisits
1. Software Engineering for SaaS	CSE	Berkley University	4	CSE300 (Software Engg.)
2. Neural Networks of Machine Learning	CSE	University of Toronto	2	Probability, Matlab/Python Programming, Simple Calculus, Linear Algebra
3. Intermediate Macroeconomics	ECO	Saylor.org	2	None

Roll No.…………

Indraprastha Institute of Information Technology Delhi

hereby confers the degree of

Doctor of Philosophy

On

-------XYZ--------

Thesis title: --

Given at Delhi on _____

Chairman, Board of Governors   Registrar   Director & Chairman, Senate

Enhancing Student Engagement in Academics and Institute

Many faculty, and even senior students, are concerned about lack of engagement of many students in academics and other Institute activities. This indifference of students is clearly undesirable and needs to be rectified, otherwise we risk having a culture and environment of cynicism and dont' care attitude in the Institute, which not only will hurt the institute, will also come in the way of students' development and achievement of their potential and their development as responsible citizens.

A series of steps is being proposed as a comprehensive response to this situation. These steps are:

1. Compulsory attendance in first two years – we will adhere to the AICTE norms of minimum 75% attendance in the first two years. If a student's attendance is below 75%, his/her grade will be reduced by one. This is the policy followed by IIIT Hyderabad. Many other institutions (e.g. DTU) have compulsory attendance.

2. Institute Activities Participation (IAP) by students in first two years. Students will be required to actively participate in various approved group activities in the Institute. These activities will include – sports, student clubs, student senate organized help sessions, etc. Students will be expected to engage in activity of their choice on an average a couple of hours per week in their first two years. A special certificate for "Active Participation in Institute Activities" will be given to students who are active. (Implementation mechanism will be worked out later including suitable reporting from sports officer, Clubs, and SS will be taken for validating active participation.)

3. Student counselling for first year students – A counselling service by senior students for first year students will be started. Help from student council will be taken in identifying Student Mentors from senior batches (through applications, some selection process,...). Current thinking: a team of 2 student Mentors will be assigned some (say 10) 1st year students. The Mentors will meet with their mentees regularly and advise them about course selection, study-play balance, time management, help with issues they are facing in studying/courses, self management, about clubs,....etc. Essentially how to make the most out of the life in IIIT-D. The mentors will also be "sensitized" to a few psychological issues, so they can direct the students towards the counsellor, if they spot some students in need of such help. There will be a faculty member who will be adviser/mentor of this Counselling service. Details of operation of this service will evolve/change.

4. Induction program for incoming students. An induction program for incoming students to help them transition from school to college will be started. This is envisaged to be a residential program, which will include activities, group activities, lectures, sports, etc – the only academics related activity will be "programming familiarization program" for those who are novices in programming. A detailed program is being worked out, which will take help from external professional sources also.

5. End of semester course feedback. Course feedback is an extremely important element in the Teaching and Learning setup. Currently insufficient feedback is coming from students. To encourage more feedback, it is proposed that if a student does not submit 75% of his/her course feedback, his access to ERP be blocked for about 2 weeks, essentially delaying delivery of grades to him/he by that period. This approach is similar to what IIT-Delhi follows.

Improving Support for Courses for improved Teaching and Learning

For strengthening the Teaching and Learning (T&L) in courses, particularly core courses, it is important to have strong support from Tutors and TAs. Without good support, high quality T&L is not feasible. Currently, tutors and TAs seem to take their task too lightly/casually, and do not even make a serious attempt to do a proper job (besides having insufficient background.) The following steps will be implemented from Monsoon, 2014, to help improve this situation.

1. Highest priority for assigning TAs will be to core courses – 1st year followed by 2nd year, and instructors of these courses may also request specific TAs.
2. The first year CS/EE/Math courses which have tutorials will be assigned tutors who are Phd students. They will be given senior BTech students for helping in lab and providing help to students, and assigned some MTech students for other work like grading assignments, maintaining grades, website, etc. Those MTech students who are good in programming may be assigned to IP/DSA, and students who are good in circuits may be assigned DC/CO.

   Action to be taken: (1) Processes for identifying UG TAs to be executed each semester; (2) DOAA to suitably modify the TA and Tutor allocation algorithm – prepare a note on this for inputs. (3) DOAA to prepare a small table for core courses, listing the number of TAs of different categories, and their desired skills/capabilities (this can help in allocating most suitable TAs).

3. Tutors, 2nd year MTech student TAs, and UG TAs will be assigned well in advance, and they will be required to meet the Instructor well in advance, and be present for preparation at least one week before the start of classes. Initial assignment will try to minimize/eliminate scheduling conflicts – after the assignment a Tutor/TA may not be permitted to add courses that conflict with their TA work.
   Action to be taken: (1) DOAA to allocate TAs early (can specify the timeline in the note also), (2) Message to existing TAs and incoming TAs.

Besides the above actions which the Institute/Academic Section has to take, the following will be some of the rules for TAs/Tutors:
1. Like all employees of the Institute, all students on TAship (including GATE) will be required to record attendance. When not coming to campus, they will have to take leave, like any employee.
2. All PG students assigned as tutors will have to attend lectures of the course to which they are assigned.
3. TAs will be required to do the assignments/labs before the scheduled lab in which the students are to do it. This is the only way they can be prepared to help the students. They will be required to attend the lectures the Instructor asks (can be excused if there are conflicts).

4. Mid-sem feedback to be given to TAs by instructors using the template for TA grading – this will help them improve during the semester itself.
5. As has been agreed, TA grade will be reported in the grade sheet. So, if a TA gets a Unsatisfactory in TA work, this will get reported in his/her grade card.

Action to be taken: (1) Students to be notified; (2) Acad section to build methods of taking attendance and leave handling, (3) Academic section to prepare a note on "Rules and Guidelines for TAs", which will be given to all PG students and faculty.

Rules for non-degree visiting students registration

Non-degree visiting students would be governed by the following rules and regulations:

1. A Non-degree Visiting Student is a student registered for a degree in a recognized Institute/University in India or abroad who has official permission from that Institute/University to attend classes, to carry out research or to avail himself of laboratory or other academic facilities at IIIT Delhi for a period not exceeding six months. In the case of a student who is not Indian National or Indian citizen, he/she will not be allowed to register for the course without valid passport and proper visa.

2. The Academic Section or the Department may receive such official requests for the provision of Institute facilities and admit such a visiting student on a case to case basis after due sanction from the DOAA.

3. After Dean's approval, the sponsoring Institute concerned may be informed of this decision and the office given the necessary instructions for temporary registration of the student. The visiting students admitted for the UG/PG courses/projects at the Institute will be charged fees on pro-rata basis as under:

   Indian national: (i) Fee of Rs.3500/- per credit. A project of 6 months duration will be considered equivalent to 12 credits. The fee for a 6 months project will be charged Rs.42,000/- (to be charged on pro-rata basis); (ii) Security Rs.5000/- (refundable).

   Foreign national: Self-financed foreign national registered as a Visiting Student will be required to pay US$ 1000 for a semester. In case registration is required for a shorter duration, the fee would be adjusted on pro-rata basis.

4. All visiting students attending courses must appear in all the tests as per the norms for regular students and also submit all class assignments. He/She will be required to go through the same rigor in the course as any regular student of IIITD.

5. In case the student is later admitted as a regular student in a PG program, he/she may apply for transfer of credits, which can be considered by PGC in the usual way.

6. The student so admitted must be governed by the Institute rules and regulations as pertaining to regular Institute students of his/her academic level, with the exception that it should not be obligatory on the part of the student to reside in the Institute.

7. If a visiting student desires hostel and messing facilities of IIIT Delhi, he/she must get written approval of the Dean of Students who will give necessary instructions for his/her admission to the hostel. In the event the student concerned resides in a hostel, he/she would be required to pay hostel accommodation charges and other hostel charges as applicable to Institute students of corresponding level.

8. The Institute will not be liable for any damages on account of any injuries/loss sustained by such candidates during their course work at the Institute. Therefore, he/she should have insurance coverage for the period he/she stays at the Institute.

9. The students coming to IIIT Delhi to carry out research or to avail academic facilities at the Institute under the various agreements entered into with Universities/Institutions, will be considered as exchange students. In the event the provision with regard to the terms & conditions of such exchange students as laid down in the respective Memorandum of Understanding vary with the provisions in Institute Rules on 'provision of facilities to non-degree visiting students', the provisions in the Memorandum of Understanding will have over-riding effect.

APPLICATION FORM FOR NON-DEGREE VISITING STUDENT
(For Students Registered for Degree Programs in Other Universities)

1.	Name of applicant	
2.	Date of birth	
3.	Male/Female	
4.	Nationality	
5.	Passport Number (if foreign national)	
6.	E-mail	
7.	Mobile No.	
8.	Program currently Registered	
9.	Name of University	
10.	Contact postal Address	
11.	Details of course(s)/Project to be done at IIIT Delhi	
12.	Start date and duration of visiting student registration (Limited to a max. of 6 months)	
13.	Request letter from Institution enclosed (required)	YES/NO

Candidate's Signature and date:

14.	Name of Faculty Guide/Supervisor of IIIT-D, if identified.	

Indian national: (i) Fee of Rs.3500/- per credit. A project of 6 months duration will be considered equivalent to 12 credits. The fee for a 6 months project will be charged Rs.42,000/- (to be charged on pro-rata basis); (ii) Security Rs.5000/- (refundable).

Foreign national: Self-financed foreign national registered as a Visiting Student will be required to pay US$ 1000 for a semester. In case registration is required for a shorter duration, the fee would be adjusted on pro-rata basis.

Payment can be made by Demand Draft drawn in favor of
'**IIIT Delhi Collection Account'** payable at **Delhi**.

For Office Use Only

15.	Candidate's Roll No._____	UG/PG-VISITING STUDENT/_____	
16.	Academic Incharge	Checked AM(Academic)	
17.	Dean's Approval	YES/NO	Signature:
			Date:
18.	Payment Details Fee: Security Deposit:	D.D. No. _____ Date : _____	

Economics Minor at IIIT Delhi

Minor Program: A BTech student can earn a minor certification in economics by completing 16 credits of regular courses, and a further 4 credits through additional coursework, independent study (IS), undergraduate research (UR), or independent project (IP), for a cumulative 20 credits in economics. The program is intended to be complementary to CSE/ECE, and emphasizes microeconomics, game theory, and data analysis. Students interested in topics not covered, *e.g.,* environmental or health economics may do so through Independent Study or credit transfer.

Faculty: Asst. Prof. Saptarshi Mukherjee (PhD, Economics, Indian Statistical Institute, New Delhi) and Asst. Prof. Shreemoy Mishra (PhD, Economics, University of Texas at Austin).

Courses: All courses are for 4 credits and require 3rd year standing or higher.

1. *Introduction to Economic Analysis (IEA):* Foundation course consisting of two parts microeconomic theory and one part macroeconomics (**open to 2nd year**).
2. *Applied Econometric Analysis (AEA):* Foundation course in multiple regression analysis, the pervasive empirical tool in applied economics.
3. *Game Theory (GT):* Foundation course in game theory, the pervasive tool for strategic analysis in economics. (Pending formal approval).
4. *Economics of Information and IT (EIIT)*: This is a course in applications of cooperative and non-cooperative game theory in the context of markets with imperfect competition.
5. *Network Economics (NWE):* A comprehensive introduction to social and economic networks, drawing on the latest findings in economics, sociology, computer science, physics, and mathematics. (Pending formal approval).

Core Courses: *Introduction to Economic Analysis* is mandatory for the minor. Students must also take *at least* one of *Applied Econometric Analysis* or *Game Theory*.

Advanced Courses (ADV): These will vary from year to year. Potential topics include: *Mechanism Design and Auction Theory, Social Choice Theory, Behavioral Economics, Microeconomics of Banking,* and *Advanced Econometrics.*

Management Science: A maximum of two management science courses (FIN/MAN) can be counted towards the economics minor. Planned offerings (by guest faculty) are: *Corporate Finance, Financial Markets and Investment, and Supply Chain Management.*

Benchmarking: Economics-minor programs at North American and Indian universities typically require six courses in economics, including *Probability and Statistics*, which all BTech students take in 1st year. Thus, the proposed 20-credit program is quite standard.

Sequencing: Recommended sequence (in bold).

Year	Fall / Monsoon	Spring / Winter
2	**IEA**	-
3	**GT,** IEA, EIIT, FIN/MAN	**(AEA or NWE) & FIN/MAN**, ADV
4	**EIIT or IP/UR/IS,** IEA, GT, FIN/MAN	**(ADV or NWE)**, AEA, FIN/MAN, IP/UR/IS

Minor in Computational Biology

The genomic revolution in biology enables one to answer many questions in medical sciences like personalized medicine, the etiology of diseases like cancer, HIV, etc. But the answers to these questions are impossible without a support of powerful computational and statistical tools that helps to understand and uncover the underlying network design principles responsible for these diseases. With the advent of new biotechnological techniques massive amounts of genomics data are generated at a rapid pace from the experiments and the analysis of these data requires tremendous amount of domain knowledge, solid computational background and strong programming skills. The entry cost of this highly interdisciplinary field consists of a good amount of understanding of molecular biology, genomics, algorithms, programming, statistical computation, machine learning, stochastic processes, and other mathematical techniques that underlie biological design principles. Therefore it is imperative to stitch biology, statistics, algorithms and mathematical models to analyze and interpret large scale genomic and biological data. IIIT-Delhi is starting a focused MTech program in computational biology.

As computational Biology is an interdisciplinary area, it is well suited for a minor for interested students from computer science and electronics background who wish to make a foray in computational biology. Hence, it is proposed that a minor be offered to the BTech students. The courses for the Minor will mostly be the courses that are offered to MTech students.

Requirements for a Minor in Computational Biology for a BTech students are:

- A student must complete 16 credits (4 courses) from the core courses of the MTech(CB) program. In addition, a student must do 4 credit of IS/IP in Computational Biology (Q: Should it be 4??-- Yes, 4 credit is right.)
- The student may also do a BTP in Computational Biology
- All other requirements for BTech (in CSE or ECE) must be satisfied.

M.Tech Thesis Evaluation Process

1. On completion of assigned project work student will submit the Thesis (Softcopy) as per prescribed format (Latex) to the supervisor for evaluation.
2. Supervisor will verify the Thesis, and when the supervisor is satisfied, he/she will proceed with the next step.
3. The supervisor will identify and fix the Examiners (both Internal and External, if any) for evaluation and get their concurrence. The adviser will also send the thesis to the examiners. It will be good if tentative date is also fixed. Examiners should be given at least one week for examining the thesis before the defense is held.
4. The supervisor will fill a Google Form (M.Tech Thesis Evaluation Request Form) for planning the defense. (The response of the Google form will be shared with the faculty as a shared google spreadsheet).
5. Academic Sections will work out all logistics for holding the defense, including: invite the examiners for Thesis Defense, fix the date and time, arrange for webex/telecom as needed, TA/DA for the external examiner, etc.
6. Academic section will inform the student, superviser(s), and examiners about the date and time and location of the thesis defense as soon as possible. Academic section will also announce the holding of the defense.
7. On the day of Thesis defense Academic Section will look after all arrangements before the defense starts, and will provide the Thesis evaluation form, arrange the honorarium & TA for examiner, arrange for tea/coffee, etc.
8. When the defense is concluded, the supervisor(s) will get the **MTech thesis defense Evaluation form** signed by the evaluation committee. If the external examiner has joined on webex/telecom, then he/she should be sent the soft copy of the form, and an email confirmation from him/her about his/her recommendation should be obtained. A hard copy of this email response should be attached to this form. The completed form will be submitted to the Academic Section by the supervisor(s).
9. After the defense, the student will make the recommended changes, get the certificate signed by the supervisor, and submit one hard bound copy of the final thesis (including the signed certificate of the adviser(s)), and the soft copy, to the Academic Section. This completes the process.
10. The Schedule for a MTech Thesis defense is as follows:

No	Events	Graduation Dates		
		May 21	**Aug 21**	**Dec 21**
1	Submission of Thesis to Supervisor by student	April 15	June 25	Nov 21
2	Submission of Google Form by Supervisor	April 25	July 05	Nov 25
3	Thesis Defense	May 21	July 30	Dec 21
4	Submission of final thesis	May 24	Aug 03	Dec 24

Student Responsibility:

1. The student seeking to defend his/her Thesis should ensure that he/she has completed the entire course requirement before submitting the Thesis to supervisor.
2. As faculty members are busy with various responsibilities, it is the responsibility of students to keep track of his/her thesis.

Thesis Format

- M.Tech Thesis should be written in the LATEX format.

- The Front cover Page should contain read as follows:-

TITLE of THESIS

BY

Name of Author

SUBMITTED

in partial fulfillment of the requirement of the Degree of

MASTER OF TECHNOLOGY

to

Indraprastha Institute of Information Technology Delhi

Under the guidance of

Supervisor Name

INDRAPRASTHA INSTITUTE of INFORMATION TECHNOLOGY DELHI
 (A State university established by Government of NCT of Delhi)

M.Tech thesis evaluation /defense form

Name of the student:_____ Roll No:_____
M.Tech Specialization:_____
Date of Thesis Submission:_____Date of Thesis Defense:_____

Thesis Title:
Thesis Evaluation Committee
1. Supervisor_____
2. Internal Examiner_____
3. Internal/External Examiner_____

Recommendation of the Committee:
☐ **Accepted**   ☐**Rejected**   ☐ **Accepted with major modifications**
                                            (Specification suggestions or changes needed)

Whether the Thesis is recommended for best M.Tech Thesis Award?
☐   Yes
☐   No
If yes, write a few lines in support of your recommendation. _____
_____

_____   _____
Supervisor   **Internal Examiner**   **External/Internal**
Examiner

_____
                    Approval of the PGC Chair

                                            _____
Date: **PGC Chair**