

# REGULATIONS FOR THE MTECH / PHD PROGRAMS

## 1. General

- (1) While the Senate is the main statutory body for all academic matters, the Postgraduate Committee (PGC), a standing committee of Senate, shall oversee matters related to the postgraduate program. This committee shall be appointed by the Senate and shall have a term of two years. It may consist of Faculty members, Research staff, and members of the Senate. In addition, there will be one student representative, who will be a full time PG student of the Institute.
- (2) Any condition arising in the PG program and not covered in this manual shall be referred to the PG committee which may refer it to the academic senate.
- (3) Dean of Academic Affairs (DOAA) is the main functionary who ensures the smooth functioning of the academic programs as approved by the academic senate, executes the policies and decisions of the Senate and PGC, and maintains all records and files.

## 2. Academic Session and Calendar

- (1) There are two regular semesters and one summer term in a year. Most courses are taught in the regular semesters. The semester timeline shall be defined in the academic calendar and will be broadly the following.
  - a. **Semester I (Monsoon Semester).** Starts around in the first week of August and ends around the end of November.
  - b. **Semester II (Winter Semester).** Starts around the first week of January and ends around the last week of April.
  - c. **Summer Term:** Starts around the middle of May and ends around middle of July.

## 3. Categories of Students

### (1) Sponsored and regular students

- a. **Sponsored** – This category comprises of students who are working professionals and are sponsored by their respective organizations by giving an undertaking (NOC). They will not be entitled to any financial assistance from the Institute, fee waiver, and on-campus placement.
- b. **Regular** – This category of students are non-sponsored, normally registered as full time students.

## **(2) Full-time and part-time students**

- a. Full Time Students – Are those who register for academic load of 12 or 16 units for those who have a teaching or research assistantship from the Institute, and 16 or 20 units for those who are not assigned any such responsibilities.
- b. Part Time Students – Registered students who are not full-time students. A part-time student is generally expected to register for at least 8 units each semester, though a relaxation of 4 units may be given by the PG Committee.
- c. Sponsored and Regular Students

## **(3) Migration among various categories**

- a. Migration from part time to full time (and vice versa) is permitted. Migration from Regular to Sponsored and vice-versa is also permitted. All migrations have to be requested along with supporting documentation by the student for approval to the PGC.

# **4. Admission**

## **(1) Eligibility and Admission Criteria**

- a. For MTech, an applicant must have a BTech/BE/MCA/MSc in CS/IT/EE/ECE or other disciplines as may be announced, from a recognized university (including State Universities)/Institute.
- b. For PhD, an applicant must have a BTech/BE/MCA/MSc or an MTech/ME/MS in CS/IT/EE/ECE or other disciplines as may be announced, from a recognized university/Institute.
- c. Other eligibility/admission criteria will be decided each year, and may be different for the different categories of students. Admission to the programs will be based on one or more of the following inputs:
  - (i) Past academic and professional record and recommendation letters
  - (ii) Performance in national/international tests for PG programs
  - (iii) Performance in the written & programming tests &/or interviews organized by IIIT-Delhi

## **(2) Reservations**

- a. The reservation policy shall be decided by the Board of Governors of the Institute. Exact details about these shall be provided in admission prospectus each year.

## **(3) Fulfillment of admission requirements**

- a. On being selected for admission, candidate will be admitted if he/she

- (i) presents original documents fulfilling the eligibility criteria,
- (ii) pays the required fee, and
- (iii) completes the admission formalities.
- (iv) A No Objection Certificate from his/her employer, if the candidate is employed somewhere.

#### **(4) Non-Degree / Visiting students**

- a. A non-degree/visiting student is one who is 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-Delhi, and will be given transcripts for the semesters spent in the Institute. They will be governed by rules, regulations, discipline of the Institute. Any credit 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.

## **5. Financial Assistance**

### **(1) Teaching and Research Assistantship**

- a. Financial assistantship is available for some PhD / MTech students in the form of Teaching Assistantship or Research Assistantship.
  - (i) **Teaching assistantship.** The students under this plan are expected to help the instructors in various courses for the smooth running of the course.
  - (ii) **Research assistantship.** The students under this plan are expected to help the faculty members in various research projects. They may be assigned limited academic duties.
- b. Only full-time regular students are eligible for assistantships and scholarships. A PhD student is not eligible for assistantship or scholarship after five years.
- c. The teaching/research assistantship for PhD students carries with it a stipend, but also has responsibilities for some academic work. The assistantship has three components:
  - (i) **Sustenance Stipend.** A student who is admitted on a financial plan will be entitled to the sustenance stipend as long as he/she remains a full time student of the Institute.

- (ii) **Scholarship:** This part of the assistantship is for good scholarship and will be continued as long as the student maintains defined academic performance (and remains a full time student).
  - (iii) **Remuneration for academic work.** The remaining part can be viewed as remuneration for the academic work being performed for the Institute.
- d. Of the basic assistantship, 25% is sustenance stipend, 25% is scholarship, and 50% is remuneration for academic work.
  - e. There will a performance linked incentive each year, the quantum of which will be decided by PG Committee.
  - f. Assistantship for MTech students will be viewed as remuneration for the academic work (teaching/research) being performed for the institute.

## **(2) Other Financial Assistance**

- a. Certain other kinds of financial assistantship such as scholarships might also be available from sources other than the Institute.

## **(3) Withdrawal and reduction of financial assistantship**

- a. For PhD students, the financial support continuation shall be contingent upon the performance in academics and the assigned academic/administrative duties and will be reviewed every semester. The scholarship part of the Assistantship may be terminated if the student's academic performance is not as per standards (defined later). The assistantship part may be terminated or reduced if the student's performance in his/her assigned duties is not satisfactory. The sustenance part may not be terminated or reduced as long as the student remains a full time student of the Institute. The reduction/termination, if any, shall be decided by the PG committee each year, based on the performance of the student.
- b. For MTech students, the financial support continuation shall be based on academic performance and performance in assigned duties (teaching/research). Continuation/reduction/termination of financial support will be decided by the PGC every semester.

## **6. Change from One Program to Another**

- (1) A student can change his/her registration from one program to another. All such requests shall be made by the student along with the supporting documents. After evaluation of the requests, the PG committee may approve the change. The credits for the courses and thesis shall be transferred to the new program. The change shall not be permitted if the

academic performance in the old program is not good enough for continuation in the new program. After the changes, the rules for the new program shall be applicable.

- (2) A PhD student can change his/her program to MTech. If this change is done by a student who is on the financial plan of the Institute, he/she will be treated as being in the MTech program from the start of his/her program, and the difference in stipends will have to be refunded.
- (3) In special cases when a PhD thesis is not found suitable for PhD, the candidate can convert to MTech and resubmit the thesis with suitable enhancements for MTech (and ensure that other requirements are met).
- (4) An MTech student can change his program to PhD and continue to do the course/research work to enable him/her to meet the requirements of the PhD degree. The student will be eligible for PhD stipends only from the time he/she enrolls as PhD student.

## **7. Registration**

### **(1) General**

- a. All Postgraduate students, full time as well as part time, are required to register each regular semester, regardless of where they are working, unless they are on approved leave of absence. In particular, students working with an external supervisor outside of IIT-Delhi, must register through the external supervisor through electronic means. The student may discuss his registration plan with his/her supervisor or any other faculty.
- b. Registration process has two parts: Academic, and administrative and both must be completed in order to complete the registration process. Academic registration includes filling the registration form and specifying the courses that the student plans to do in the semester and getting it approved. Administrative part includes paying all dues to the Institute. A student who is outside the Institute with an external supervisor may get this completed through a friend/family member/etc, or by paying through a draft.
- c. The students shall normally register for courses if their course requirement conditions are not fulfilled. A student may register for the courses and thesis simultaneously in a semester. The thesis registration shall be for thesis units in multiple of 4 (i.e. 4, 8, 12 or 16).

### **(2) Late Registration**

- a. Late registration is permitted as per academic calendar on the payment of late registration fee. The late fee may be waived if the delay is due to an academic

activity undertaken with prior permission. The number of days missed due to late arrival shall be treated as leave of absence.

### **(3) Adding or Dropping of Courses**

- a. A student can change the courses that he/she does in a semester by adding and dropping courses till the last date for add/drop as specified in the academic calendar. In addition, a student can drop, with permission from the PG Committee, some courses even beyond the last date for add/drop. The last date for the latter shall also be mentioned in the academic calendar.

### **(4) Cancellation of registration**

- a. A student is solely responsible to ensure that all conditions for proper registration are satisfied, and there are no timetable clashes. The registration may be cancelled by DOAA for a course if any irregularity is found at a later stage. A student's registration for the semester may be cancelled as part of disciplinary action. Leave beyond permissible limits may also result in cancellation of registration for a semester.

### **(5) Summer term registration**

- a. 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.

## **8. Leave Rules**

The students may be granted leave of absence on application to the PG committee. The following leaves are applicable:

### **(1) Vacation and casual leave**

- a. A post graduate student on financial assistance plan from the Institute may be allowed vacation leave during any period of Institute's vacation or during the mid-semester recess up to a maximum of 15 days per semester (six months), subject to a maximum of 30 days at a time. Leave not availed in one semester may be carried over to the next semester.
- b. In addition, a student irrespective of the financial assistance may be allowed to go on casual leave for up to four working days in a semester, with permission.

## **(2) On-Duty leave**

- a. A PhD student may be granted on-duty leave for attending seminars, conferences, traveling on project work, etc. For this leave, the candidate has to take approval from his/her supervisor as well as the PG Committee.

## **(3) Summer leave**

- a. A PG student who is on financial assistance may be granted leave during the summer vacation period for undertaking internships, projects etc. This will be “leave without pay” and during this period, the student will not get the assistantship/scholarship. Decision on such leave requests will be made by the PG committee, which may not grant this leave if it views that granting of the leave can hinder the completion of the PG program of the student. All students taking such leave, must report for registration the next semester, even if they do not have any course requirement next semester. Any relaxation of this guideline will be decided by the PG committee, and will be granted only on academic grounds (e.g. a student is attending a conference).

## **(4) Semester leave**

- a. Semester leave may be granted to students by the PG committee upon recommendations of the supervisor on various accounts, including medical, for up to a maximum of two semesters in the program. In the case of semester leave, the academic registration of the student shall be cancelled for that semester. The financial assistance to students shall also be not available during the period of semester leave.
- b. When the total days of absence is more than 20 days in a semester, the student may be required to take a semester leave.

## **(5) Medical leave**

- a. A student can also take up to fifteen days of leave due to medical reasons. Competent authority can give up to six more days of leave under special circumstances. All medical leave requests must be supported by a medical certificate issued by a medical doctor.

## **(6) Maternity and Paternity leave**

- a. As per GoI rules.

## **(7) Unauthorized absence**

- a. Absence of a student without any sanctioned leave will result in the loss of financial assistance and may result in the termination of the student's program.

#### **(8) Leaving the program**

- a. If a student decides to leave the program, he/she has to leave the program at the end of the ongoing semester. The student has to inform the PGC and advisors in advance (at least one month), complete the teaching duties, if any, return all the equipments and data, and get signatures on the no-dues form

### **9. Working with Collaborators outside IIIT-Delhi**

- (1) A PG student may interact and work with an approved external co-supervisor in a collaborating organization. Students shall require permission from the PGC to proceed to work with the external co-supervisor. All students working with the external co-supervisor shall be governed by the following guidelines during the period of absence from IIIT-Delhi.
  - a. Such students shall be required to register each semester as per the registration procedure of IIIT-Delhi. They shall perform the academic and administrative registration of IIIT-Delhi through the external supervisor using electronic means of communication.
  - b. The students are expected to follow the rules of the collaborating institute but shall continue be governed by the rules and regulations of the IIIT-Delhi.
  - c. They shall be reporting to the external supervisor(s) for their research work on their thesis and shall be in constant touch with the supervisor(s) at IIIT-Delhi. This may be through a regular video/audio conferencing or through regular reporting.
  - d. Such students are permitted to register as a non-degree/visiting student in an institute other than IIIT-Delhi and may transfer the credit. Transfer of credits will be decided on a case-by-case basis by the PGC. The students can also take course on audit and submit the performance records for the consideration of waiver of course requirements if desired.
  - e. They shall not be provided any financial assistance from the Institute during the period they are with the external co-supervisor. Financial assistance during these periods shall be provided by the collaborating institute as per their norms, or some other sources like scholarships from agencies, etc.
- (2) When working with collaborators outside the Institute, the IP rights will be as decided between the supervisor(s), and the sponsoring agency, if any. Any such arrangement shall



be done with the concurrence of the PG Committee, and shall not interfere with the ability of the student to write his/her thesis and publish results of the work.

## 10. Teaching and Evaluation

### (1) Teaching

- a. As specified in the Regulations for BTech Program

### (2) Continuous evaluation

- a. As specified in the Regulations for BTech Program

### (3) Grading scheme

- a. The IIIT-Delhi awards the following letter grades. Each letter grade earns certain points as given in the table.

| Letter Grade       | Points   | Remarks  |
|--------------------|----------|--|
| A+ (Outstanding)   | 10       | Letter grades A+ to F and I are given only in the regular courses.<br><br>This grading scheme is effectively A to F; A+ is only to recognize excellent performers in a course – it has same points as A. |
| A (Very Good)      | 10       |  |
| A(-)               | 9        |  |
| B (Good)           | 8        |  |
| B(-)               | 7        |  |
| C (Satisfactory)   | 6 points |  |
| C(-)               | 5 points |  |
| D (Marginal)       | 4 points |  |
| F (Fail)           | 2 points |  |
| I (Incomplete)     | Nil      | Incomplete (I grade must be converted to one of the letter grade (A to F) as per the academic calendar   |
| S (Satisfactory)   | Nil      |  |
| X (Unsatisfactory) | Nil      | S and X are grades for only certain kinds of courses.  |
|                    |          |  |
| Audit              | Nil      | If a student officially “audits” a course and completes all the requirements.  |

- b. In the academic courses, the final grades awarded are A to F (A+ is a grade with same points as A, and is there to honor excellence).

- c. An I (Incomplete) grade may be awarded in cases when all the requirements for a course are not met by the student at the time of submission of grades, and essentially reflects an “incomplete” status in the course. This grade must be converted to a regular letter grade (A to F) within the two weeks from the last date of the submission of the grades as stipulated in the academic calendar. Only for the project works and independent study courses, an additional two weeks will be admissible for the change of I grade. All unconverted I grades get automatically converted to F after this period.
- d. All courses in which a student obtains an F grade must be repeated or replaced by another equivalent course.
- e. The thesis may be registered for 4, 8, 12 or 16 units in a semester. S or X grades can be awarded each semester irrespective of units taken in the semester (4, 8, 12, 16 units). Further, student’s advisor(s) also has(have) to submit a report for student’s progress to PGC.

#### **(4) Performance Indicators – SGPA and CGPA**

- a. The semester performance is indicated by a Semester Grade Point Average (SGPA) which is a weighted sum of all the points earned in the courses done in a semester. The SGPA is given for each semester and is computed using the following formula.  

$$\text{SGPA} = (u_1.w_1 + u_2.w_2 + \dots + u_n.w_n) / (u_1 + u_2 + \dots + u_n),$$
 where  $u_i$  is the number of units for the course  $i$  and  $w_i$  is the points earned through the letter grade in that course.
- b. While doing the computation of SGPA, the course/thesis units with grades S and X are ignored.
- c. The overall performance is indicated by a Cumulative Grade Point Average (CGPA) which is computed in the same manner as the computation of SGPA but for all the courses done in the program. While the F and X grades shall show on the grade sheet, the original grade of a course repeated/replaced is ignored in the computation of SGPA/CGPA.

## **11. Minimum Academic Performance Requirements**

### **(1) M Tech program**

- a. The minimum graduating CGPA is 6.5.
- b. The minimum CGPA for continuing in the program is 6.0.
- c. The minimum CGPA for continuing to get the scholarship component is 7.5
- d. The student shall not be allowed to continue in the MTech program if

- (i) His/her CGPA falls below 6.0.
  - (ii) His/her SGPA is below 6.5 in two consecutive regular semesters.
  - (iii) He/she obtains two or more F grades.
- e. The student shall be issued a warning for low academic performance if
  - (i) His/her CGPA falls below 6.5 in a semester.
  - (ii) His/her SGPA is 6.0 or below in a semester and he/she is allowed to continue in the MTech program.

## **(2) PhD program**

- a. The minimum graduating CGPA is 7.5.
- b. The minimum continuing CGPA is 7.0.
- c. The minimum CGPA for continuing to get the scholarship component is 8.0
- d. The student shall not be allowed to continue in the PhD program if
  - (i) His/her CGPA falls below 7.0.
  - (ii) His/her CGPA is below 7.5 in two consecutive regular semesters.
  - (iii) He/she obtains two or more F grades.
  - (iv) He/she accumulates two or more X grades in the thesis units.
  - (v) If he/she is under warning and his/her performance is not improving in his/her academics/research/duties (research or teaching).
- e. The student shall be issued a warning for the low performance if
  - (i) His/her CGPA falls below 7.5.
  - (ii) His/her SGPA is 7.0 or below in a semester and he/she allowed to continue in the PhD program.
  - (iii) If his/her advisor(s) and/or PGC feel that the student is not performing well in his/her academics/research/duties (research or teaching).
- f. The students who are not allowed to continue in the PhD program may be permitted to transfer their registration to the MTech program provided they meet the conditions of continuing in the MTech program.

## **12. Students Under Warning**

- (1) A student who is under warning will normally not be entitled for two components of his stipend – scholarship and assistantship. He/she will get only the sustenance portion. The student will also not be allowed to be on any elected/nominated committee representing students of the Institute, and if he is on any committee he/she shall resign.

## **13. Requirements for the MTech Degree**

### **(1) Per Semester Load Requirements**

- a. A normal full time load is 16 or 20 units for all PG students. Students who are on assistantship (and are earning the remuneration portion) shall be given a relaxation of 4 units in the normal full time load. A student may be permitted an overload of at most 4 units in a semester, with permission from the PG committee. The students who have completed the stipulated course requirements shall register for the thesis units in multiple of 4 units (i.e. 4, 8, 12 or 16). No overload shall be permitted in the thesis unit registration. Part time students may register for any number of units lesser than the normal full-time load.

### **(2) Course Work Requirements**

- a. The minimum number of units through courses for an MTech with-thesis is 32 units. The minimum number of course units for an MTech without-thesis is 40 units. The supervisor or the PGC may advise the students with insufficient background to do additional course units.
- b. An MTech student may be permitted to replace up to two courses done by him/her and in which s/he has not obtained passing, but not good (e.g. C or lower), grade. In this case, the earlier course will be listed in the transcript as having been taken on "Audit". An MTech student may also be allowed to do extra courses to improve the CGPA. All such permissions shall be granted by the PG committee upon requests from the students.

### **(3) Thesis credit and Total Credit requirements**

- a. Each MTech student is expected to write a thesis report or a scholarly paper. For MTech with-thesis, a student has to complete a minimum of 16 units of thesis. For MTech without-thesis, a student has to do a scholarly paper instead of a thesis, and for this he/she has to complete a minimum of 8 units of thesis. The total minimum credit requirements for an MTech is 48.
- b. For the purpose of grading in the thesis units registered, the progress in the thesis work shall be assessed by the thesis supervisor(s). For each semester, one S (if the performance is satisfactory) or one X (if the performance is not satisfactory) grade

shall be awarded by the thesis supervisor(s). The thesis grades shall be submitted by the thesis supervisor(s) at the end of the semester.

**(4) Thesis/Scholarly Paper Supervisor**

- a. The thesis/scholarly paper shall be done under the guidance of a supervisor, who shall be a faculty member of the Institute. An adjunct faculty can also be a supervisor. There may be multiple supervisors for a thesis/paper. A student may also have external co-supervisors for the thesis/scholarly paper. Such external co-supervisor shall be approved by the PG Committee upon a formal request by the student, duly forwarded by the supervisor.

**(5) Thesis/Scholarly Paper submission**

- a. 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.

**(6) Thesis defense and Evaluation**

- a. Each MTech thesis must be defended by the student in front of the thesis evaluation committee. The defense should be held no earlier than one-week after the thesis has been submitted (exceptions may be granted by PG Committee Chair). The thesis evaluation committee shall make its recommendation to the Dean, Academic Affairs.
- b. 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 Dean of Academic Affairs.

**(7) Award of degree**

- a. 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 degree may be granted by the Dean, Academic affairs only after the recommendations from the academic senate.

## **14. Requirements for the PhD Degree**

- (1) A student shall be considered for the award of PhD degree by the IIIT-Delhi Senate only upon the completion of the requirements mentioned here. Per semester load requirements of PhD students is same as for MTech students. However, PhD students who are on assistantship shall be given a relaxation of up to 8 units in the normal full time load

**(2) Course Work Requirement**

- a. The requirement of the course work for a PhD student is aimed at providing the basic academic preparation to carry out the research, and have sufficient breadth in the area. The minimum course requirement for a PhD student is normally 32 units for students whose highest degree is a BTech (or equivalent), and 16 for those who have an MTech (or equivalent). After the course work, the student is expected to have sufficient breadth in at least three of the main sub-areas of Computer Science. The PG committee may ask the students with insufficient background to do additional courses (in addition to 32/16 units).
- b. In special cases, for students with advance standing by virtue of their academic preparedness and/or by virtue of their professional work experience, some of the course requirements may be waived. All such waivers shall be decided upon by the PG Committee and reported to the Senate.
- c. The PhD students are expected to finish their course requirements as soon as possible and definitely not beyond four semesters.
- d. A PhD student may be permitted to replace up to two courses done by him/her and in which he/she has obtained passing, but not good, grade. In this case, the earlier course will be listed in the transcript as having been taken on "Audit". He/She may also be permitted to do extra courses to improve the CGPA. All such permissions shall be granted by the PG committee upon requests from the students.

**(3) Transfer of Credits for Courses done Outside**

- a. Students may be permitted to do academic work and courses in places of repute outside IIIT-Delhi. Based on their performance/quantum of work done and the content of the course, the PG committee may consider them equivalent to some course credits, and waive credit requirements for similar courses/projects within IIIT-Delhi. Institutions with which IIIT-Delhi has arrangements/MOU/student exchange programs, transfer of credits may also be permitted. Any such waivers/transfer is permitted only if the courses being considered have not been counted for any other degree/diploma requirement.

**(4) Thesis credit requirements**

- a. All PhD students irrespective of their entry category are expected to successfully complete a minimum of 56 units by thesis. In truly exceptional cases where the PhD candidate is ready with a thesis before he/she has accumulated these credits, the PG committee can consider waiving off some of these units. For the purpose of grading in the thesis units registered, the progress in the thesis work shall be assessed by the thesis supervisor(s). For each semester, one S (if the performance is satisfactory) or one X (if the performance is not satisfactory) grade shall be awarded by the thesis supervisor(s). The thesis grades shall be submitted by the thesis supervisor(s) at the end of the semester.

#### **(5) Thesis Supervisor and External Co-supervisor**

- a. The thesis work shall be done under the guidance of the PhD supervisor, who shall be a faculty member of the Institute. An adjunct faculty can also be a supervisor, with permission of the PGC. There may be multiple supervisors. Normally, a student is expected to decide the supervisor(s) by the start of the second semester but can defer it till the end of second semester. This will be done by informing the PG Committee through a form, which shall be signed by the supervisor(s). A student can change the supervisor later – for this a formal request will have to be submitted to PG Committee and has to be signed by the old as well as the new supervisor.
- b. A student may also have external co-supervisors for the thesis. Such external co-supervisor shall be approved by the PG Committee upon a request by the student, duly approved and forwarded by the supervisor(s). The request must be accompanied by the CV/Bio or sufficient information about the proposed external co-supervisor which will allow the PGC to evaluate the suitability.

#### **(6) Monitoring Committee**

- a. The PG Committee shall form a monitoring committee for each candidate, whose task will be to independently monitor and report on the progress of the candidate. The committee should generally be formed before the end of the candidate's second semester in the program. The monitoring committee shall consist of at least one supervisor and at least two other experts, who may be faculty members of the Institute. The monitoring committee shall submit its evaluation about the progress of the candidate, at least once a year. If the monitoring committee feels that the candidate is not making sufficient progress, it may recommend suitable actions to be taken

#### **(7) Comprehensive**

- a. 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. At least two weeks in advance, the student shall inform, through his/her supervisor, the PG Committee of his/her willingness to take the comprehensive examination, and submit the survey report. The survey report will be submitted to a committee formed by the PG Committee at least one week before the stipulated date of the seminar. The seminar should be open for all to attend. After the seminar, the committee will submit its report 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.

#### **(8) Regular Seminars**

- a. This requirement is included to develop the confidence in presentations by the PhD students, as well as provide a forum for the student to present his/her work (perhaps before taking it to a wider audience.) Each PhD student is expected to give at least one seminar each year in the Institute. It is expected that the later seminars will be based on the student’s PhD research work. During his/her stay, the PhD student must give at least two such seminars. Each seminar will also be used as an indicator of progress, and shall be attended by the monitoring committee of the candidate, which shall submit a report to the PG Committee.

#### **(9) Teaching Requirements**

- a. One of the potential career options for the research students is academics. The PhD program at IIT-Delhi aims to develop suitable teaching skills among the research students through teaching requirements. Towards this, it requires all students on financial assistantship plan of the Institute are required to take part in the teaching activities.
- b. All PhD students must be TA for at least two semesters to satisfy the teaching requirements for a PhD degree. Students on research assistantship will also be required to complete this requirement, though they may be assigned lighter load each semester. The feedback received from the course students on the TA work will be part of the PhD student record, and will be an input in evaluation.
- c. Students will be assigned their TA duties towards the end of a regular semester for courses in the next semester. During the break, they should prepare themselves for the course, and with help from the instructor, design the assignments, develop the solutions and grading of the assignments. They will also be involved in the grading of the exam papers and developing the solutions to the exam papers. Senior students are



also encouraged to be a tutor as well as take part in the class room teaching, along with the corresponding instructors. Such arrangements are to be worked out between the instructor in-charge of the course and the student. It is expected that the load of TA work in a semester will be similar to that of a course, that is, approximately 10 hours per week.

- d. The teaching requirement may be waived for part-time and/or sponsored candidates (as their professional goals are likely to be already defined.)

#### **(10) Thesis submission**

- a. Each PhD student is expected to write a thesis report on the PhD work. The thesis has to be submitted by the student for evaluation.
  - (i) **Submission of Extended Abstract.** The PhD students are required to submit the extended abstract on the thesis, along with the list of papers published and submitted based on PhD work. After the submission of the extended abstract the students are expected to submit their final thesis report within four weeks.
  - (ii) **Submission of Thesis:** Each PhD student is expected to submit the thesis on his/her PhD research, which shall be sent to the examiners for evaluation.

#### **(11) Thesis evaluation and Defense**

- a. All PhD theses will be evaluated by a panel of thesis examiners who are experts in that area, and the candidate will have to defend the thesis in front of this panel. The panel will consist of supervisor(s) of the student, and a minimum of three non-supervisor examiners, at most one of which can be from within the Institute. A concurrence will be taken (on email) from the non-supervisor examiners and extended abstract may be used for this interaction.
- b. For selection of members of the panel, the supervisor(s) of the candidate will suggest a list of at least six possible external examiners to the PG Committee, and, if desired, two additional internal examiners, along with a short bio (or URL) of each (so the PG Committee can judge the suitability). It is expected that the supervisor(s) will take permission from the people listed before including their names. The PG committee shall select the panel from this list.
- c. A thesis defense date will be fixed, after taking inputs from all examiners on the panel. The date should normally be between 6 weeks and 8 weeks but not more than 3 months from the time the thesis is sent for review. The thesis will then be sent to the examiners along with the date of the defense (if some examiner(s) “back out” later, alternate(s) may be arranged by the PG Committee with inputs from the advisors). During the review period, if any further information is needed, a reviewer

may request the PG Committee chairman, who may direct these requests to the supervisors.

- d. The deadline for submission of individual reports by the examiners will be one week before the defense date. Each review member is expected to submit the review by the date. The defense can proceed if reports from at least two non-supervisor examiners have been submitted. Each report consists of:

- (i) An overall recommendation on the thesis. This could be one of the following:

- (a) Category A:** The Thesis is worthy of a PhD degree. The suggestions made by me are minor.

- (b) Category B:** The Thesis is worthy of a PhD degree after the suggested modifications have been done and the modifications verified by the advisor(s).

- (c) Category C:** The Thesis requires major modifications as suggested, and the thesis must be sent to the examiners after changes have been incorporated.

- (d) Category F:** The Thesis is not worthy of a PhD degree.

- (ii) Suggestions / comments on the thesis.

- e. All examiners are expected to attend the defense. A pre-scheduled defense can proceed if at least two non-supervisor examiners are present. Before the defense, all submitted reviews will be sent to all examiners. During the defense, examiners and the candidate can join the meeting using electronic means like video conferencing, audio conferencing, Skype, etc. However, it should be ensured that all members are able to clearly see and hear the presentation, and are able to ask questions when they want. The defense shall be open to all, and arrangements should be made for this also – through presentation, video, webcast, etc.

- f. At the end of the defense, the panel must deliberate and make an overall recommendation. The reports submitted earlier by individual examiners are inputs to these deliberations. The overall recommendation format is also the same as above – the category is what the panel finally decides, and suggestions/comments are those that the committee collectively wants to emphasize beyond the comments by individual reviewer. All the examiners present in the orals must explicitly accept the recommendations – through physical signature or through email, fax, etc. If the decision is not unanimous and some examiners record their “dissent” or a “contrary view”, then the PG committee will decide how to proceed.

- g. If the overall recommendation is F, then the thesis is rejected. Otherwise, the student has to make suitable changes to the thesis, if required, to address the concerns. This revision should normally be done within six months of the defense. When the issues

raised by the examiners have been addressed in the thesis by the student, the final thesis is submitted to the PG committee. If the overall recommendation is Category A, then the revised thesis is accepted. If the overall category is B, the revised thesis is accepted if it has a suitable certification from the advisors. If the overall recommendation is category C, then the PG committee chairman will send the revised thesis to the examiners again. The responses of the examiners will be evaluated by the PG committee to take necessary action regarding accepting the revised thesis.

**(12) Award of degree**

- a. Upon acceptance of the revised thesis by the PG committee, the academic senate may recommend the award of the PhD degree to the student. After this recommendation, while pending the actual award of the degree in a regular convocation of the Institute, a provisional degree may be granted by the Dean, Academic Affairs.