

# Information for Students 2015-16

## CONTENTS

1. Course Students	2
2. Research Students	8
3. Integrated Ph D Students	18
4. External Registration Programme Students	22
5. Discipline, Attendance and Leave Rules	24
6. Code of Ethics and Conduct	25
7. The Sexual Harassment Complaint Committee	25
8. Academic Integrity	26
9. Tuition and Other Fees	29
10. Scholarships and Fellowships	33
11. Students' Assistance Programme	35
12. Short-Time Registrants	36
13. Admissions of Foreign Nationals	37
14. J R D Tata Memorial Library	37
15. Health Centre	39
16. Hostels and Dining Halls	39
16. Students' Council	41
17. Students' body for Innovation and Entrepreneurship (EntIISc)	42
18. Recreational Facilities	43

# Academic Events

## TERMS

I Term : 3 August – 11 December 2015  
II Term : 1 January – 30 April 2016  
Summer Term : 1 May – 30 June 2016

## COURSE REGISTRATION

I Term : 16 July – 3 August 2015  
II Term : 1 – 5 January 2016  
Summer Term : 2 – 5 May 2016

## MID-SESSION RECESS

12 December : 31 December 2015

## VACATION

1 May : 31 July 2016

## LAST DATE FOR CLASSES

I Term : 26 November 2015  
II Term : 11 April 2016  
Summer Term : 27 June 2016

## TERMINAL EXAMINATIONS

I Term : 2 December – 11 December 2015  
II Term : 20 April – 29 April 2016  
Summer Term : 30 June 2016

## LAST DATE FOR DROPPING COURSES

I Term : Without mention on the Transcript 15 October 2015  
With mention on the Transcript 14 November 2015  
II Term : Without mention on the Transcript 2 March 2016  
With mention on the Transcript 1 April 2016  
Summer Term : Without mention on the Transcript 1 June 2016  
With mention on the Transcript 16 June 2016

## EXPANSIONS FOR THE ABBREVIATIONS USED

TGPA : Term Grade Point Average  
CGPA : Cumulative Grade Point Average  
SCC : Senate Curriculum Committee  
SCRC : Senate Committee on Research Conferments  
DCC : Departmental Curriculum Committee

# 1. Course Students

## 1.1 Registration for Courses

1.1.1 Under the guidance of his/her Faculty Advisor, each student registers for a set of courses. These include both the core courses and electives.

## 1.2 Term Course Load

1.2.1 For regular ME/ M Tech/ M Des/M Mgt. programmes, the credit load per term (including project credits) is as follows:

	No. of Credits	
	Regular Term	Summer Term
Normal	16	8
Minimum	12	6
Maximum (in 1st Term)	18	–
Maximum if TGPA/CGPA in the previous Term is < 5.0	16	8
Maximum if TGPA/CGPA is > 5.0 but < 7.0	18	8
Maximum if TGPA/CGPA is > 7.0	21	8

1.2.2 The stipulation on the minimum number of credits does not apply to the final term.

1.2.3 Students may be allowed to complete the programme at a slower pace. This requires prior approval of the Deans, on the basis of a recommendation from the Faculty Advisor and the Chairperson of the department. Such approval can be requested at the beginning of the term.

## 1.3 Exemption from a Core Course

1.3.1 Within 15 days of registration, a student may apply to the Chair of the department seeking exemption from a core course on the basis of his/her prior background. If the Chair approves, the student will be given a written examination, in accordance with the schedule indicated below:

	I Term	II Term	Summer Term
Written examination deadline	15 Sep	15 Feb	20 May

1.3.2 Exemption is granted only if the student secures a B or a higher grade in this examination. He/she will be given the same grade for the course as the one obtained in the written examination, the credits will count towards the degree requirements, and they will be used for the computation of the TGPA/CGPA.

1.3.3 Until the result is declared, the student should continue to attend classes. If exemption is not granted, he/she should continue as a regular student.

1.3.4 Students may get exemption for a maximum of 6 credits over the entire programme.

#### 1.4 Dropping of Courses

1.4.1 Dropping requires the approval of the advisor and the course instructor, and is permitted only if the total number of credits does not fall below than the minimum stipulated in Section 1.2.1. If it is done by the 15th of October in the August term, the 1st of March in the January term and the 31st of May in the Summer term, the dropped course will not be listed in the final transcript. If the dropping is done on or before the 15th of November in the August term, the 1st of April in the January term and the 15th of June in the Summer term, the dropped course will be included in the final transcript with a W (Withdrawn) grade.

1.4.2 A student may register again for a course which he/she has dropped in a previous term.

#### 1.5 Continuous Assessment

1.5.1 Evaluation is based on continuous assessment, in which sessional work and the terminal examination contribute equally.

1.5.2 Sessional work consists of class tests, mid-term examinations, home-work assignments etc. Absence from tests or late submission of home-work will result in loss of marks. The break-up of the 50% sessional marks among these components will be announced at the beginning of the course.

1.5.3 The instructor decides the cut-offs for converting the total marks into grades. Only the grade is recorded in the transcripts, the marks are retained internally. There are 6 grades, designated S, A, B, C, D and F with the corresponding grade points as given below. For course students, all grades except F are passing grades.

Grade	Grade Point Value
S	8
A	7
B	6
C	5
D	4
F	0

1.5.4 The Grade Point Average (GPA) is a measure of overall performance. The Term GPA (TGPA) is based on the grades of the current term, while the Cumulative GPA (CGPA) is based on the grades of all courses taken in the programme. The grade points contribution of each course is the product of the number of credits and the grade point value corresponding to the grade obtained in it. For instance, in a 3 credit course, if the student gets a B grade (which carries a grade point value of 6), then the contribution to the total grade points is equal to 3 x 6, or 18. The TGPA is obtained by adding the grade point contributions of all courses taken in the current term, and

dividing the total by the number of credits. The CGPA is calculated similarly, the only difference being that one considers the grade point contributions of all the courses taken in the programme. The TGPA and CGPA are rounded off to the first decimal place.

## 1.6 Terminal Examination

1.6.1 Terminal examinations are held during the last fortnight of each term and during the last week of the Summer term. The time table is notified in advance.

Attendance of the terminal examination is compulsory. If a student is absent, he/she shall be given zero marks, and will get an F grade. Absence on medical grounds, certified by the Chief Medical Officer of the Institute, may be condoned, and the student may be permitted to take substitute examination(s) within a prescribed period.

## 1.7 Academic Criteria for Continuation

1.7.1 Only two F grades are permitted during the programme. If a third F grade is obtained, the student shall leave the Institute.

1.7.2 In the first term, the TGPA should not be below 3.5, and in subsequent terms the CGPA should not be below 4.0. If this condition is not satisfied, the student shall leave the Institute.

1.7.3 In the first term, if the TGPA falls between 3.5 and 4.0, then in the following term, the student is required to register for fewer courses, but must satisfy the prescribed minimum of 12 credits.

## 1.8 Handling of 'F' Grades

1.8.1 Since F is a failing grade, a student cannot graduate until he/she clears it, by either repeating the same course or by taking a substitute course, as decided by the Departmental Curriculum Committee (DCC).

1.8.2 If the F grade is obtained in a hard core course, the same course must be repeated. For a soft core course, the substitute course can be any soft core course. For an elective, the DCC can specify an appropriate alternative course.

1.8.3 Only one chance is given to clear each F grade. If the grade is F in the replacement course, the student will not be allowed to continue.

1.8.4 Such repetition of courses is permitted only to clear F grades. Students are not permitted to retake courses in which they have obtained any other grade.

1.8.5 Both the initial F grade and the higher grade from the replacement course will be reflected in the transcript.

1.8.6 Getting an F grade makes the student ineligible for the award of Distinction, even though clearing the F grade permits him/her to graduate with degree.

1.8.7 Until an F grade is cleared, it will be used for the computation of the TGPA and the CGPA. Subsequently, it will be omitted from the TGPA computation

of the term in question, and the grade from the repeated or the substitute course will replace it in CGPA computations.

## 1.9 Project

**1.9.1 ME/M Tech Programme/M Mgt** Students begin project work during the summer term of the first year. The department specifies the break-up of the total project credits among the summer term and the subsequent August and January terms. A single composite project grade is awarded on the basis of the weighted total marks from a two-stage evaluation. The first stage, which carries 30% of the marks, takes place after the third term. The second stage carries the remaining 70%, and takes place in the month of June of the second year. The composite project grade is combined with the CGPA of the course work to get the class for the award of the degree, as specified in Section 1.11.

**1.9.2 M Des Programme** Formal registration for the project is done in the third term, and the final evaluation is carried out at the end of the fourth term. All other conditions of the M E/ M Tech project work apply.

**1.9.3 Minimum Pass Grade** The minimum pass grade for project work is 'D'. If a student secures an F grade, he/she fails the programme, and must leave the Institute. A student who secures a F grade will be given an opportunity to re-do the project. The period of this extension of project work is required to be approved by the Senate Curriculum Committee (SCC) on the recommendation of the DCC and the project supervisor.

## 1.10 Degree Requirements

**1.10.1** The normal duration of the ME/ M Tech/M Des and M Mgt programme is two years. In special circumstances, a student may be permitted an extension, but must complete all requirements within a maximum of 3 years. The scholarship will be restricted to the first two years.

**1.10.2** The computation of the final CGPA is done only after the student clears all courses successfully.

## 1.11 Classification of Awards

**1.11.1** Students graduate with award of ME / M Tech/ M Des/ M Mgt Degree. Minimum grade in project to qualify for degree is 'D'. The class is determined by combining the CGPA and the project grade as shown below:

Course CGPA	Project Grade	Award
7.0 and above	S or A	Distinction

See also Section 1.8.6

## 1.12 Attendance

**1.12.1** If a student fails to have a minimum attendance of 75% in each course, he/she will be asked to leave the Institute. A shortage of attendance may be condoned by the Deans in exceptional circumstances.

## 1.13 Break in Studies

- 1.13.1 Students may be permitted a break in studies only on medical grounds. Written permission of the SCC must be requested as soon as the problem is manifest. The break may be for a maximum period of one year.
- 1.13.2 The request must be accompanied by a certificate from the Chief Medical Officer (CMO) of the Institute. It should be forwarded through the Faculty Advisor and the Chairman of the department.
- 1.13.3 Resumption of studies requires a fitness certificate from the CMO of the Institute.
- 1.13.4 The student must pay tuition and all other fees during the break period.
- 1.14. **Transfer to the Ph.D Research Programme**
- 1.14.1 A mechanism is provided to transfer motivated M E/ M Tech/ M Des students to the PhD programme.
- 1.14.2 The minimum CGPA for eligibility is 6.5, considering all courses (a minimum of 32 credits) taken in the first two terms. In special cases, this may be relaxed to a CGPA of above 6.0, on the basis of a specific departmental recommendation with visible evidence of other strengths.
- 1.14.3 The proposed research supervisor must be identified at the time of applying for transfer.
- 1.14.4 All cases will be considered on the basis of an interview, by a committee consisting of the following:
- Chair of the department\* - Chairperson
  - Faculty Advisor
  - Two Faculty members from the department
  - Proposed Ph D Research Supervisor/s
- \*where the Chair is the Faculty Advisor or the proposed Research Supervisor, he/she will identify another faculty member of the department to chair the committee.
- 1.14.5 The recommendation of the committee will be considered by the Senate Committee on Research Conferments (SCRC). Applications forwarded to the SCRC by 30th of June will be considered in July, and those forwarded before November 30 will be considered in December.
- 1.14.6 If approved, the date of registration for the PhD programme will be the date of joining the M Tech/ M Des programme.
- 1.14.7 The Ph D research topic should be such that the courses taken during the first year of the ME / M Tech are sufficient for the Research Training Programme (RTP). However, depending on the requirements of the problem and the recommendation of the Research Supervisor(s), the student may credit one or two extra courses. In all cases, he/she should complete the Comprehensive Examination within one year after transfer to the Ph.D. programme.

**1.14.8** The student will receive a scholarship of Rs. 25,000/- p.m. with effect from the date of the Joining ME/ M Tech / M Des. An enhanced scholarship of Rs. 28,000/ will be paid on successful completion of the Comprehensive Examination or an completion of two years from the date of initial registration for ME/M Tech/ M Des, whichever is later.

### **1.15 Privileges and Responsibilities**

**1.15.1** All students are bound by the rules and regulations of the Institute.

**1.15.2 Full Time Students:** During the tenure of their studentship, full-time students are eligible for the following:

- a) Residence in the Hostel, subject to availability
- b) Membership of the Gymkhana
- c) Participation in the activities of the Students' Council
- d) Participation in the Students' Assistance Programme
- e) Assistance from the Students' Aid Fund (SAF)
- f) Leave privileges
- g) Limited assistance from the Special Medical Care Scheme

**1.15.3 QIP Scholars:** These scholars are governed by specific rules of the Ministry of Human Resource Development with regard to scholarship, duration of stay, leave, etc. They are eligible for hostel accommodation (subject to availability) and membership of the Gymkhana. They are not eligible for Students Aid Fund loans, the Students Assistance Programme and Financial Assistance for attending National/International Conferences.

### **1.15.4 Foreign Nationals:**

**1.15.4.1** Foreign Nationals are eligible for hostel accommodation (subject to availability) and membership of the Gymkhana.

**1.15.4.2** They need prior permission from the Dean to go out of India on vacation/ leave.

**1.15.5 Sponsored Candidates:** Eligible for Gymkhana. The hostel accommodation will be provided only if it is available.

### **1.16 General**

On all matters connected with course work and the prescribed requirements for the degree, students should seek the guidance of their advisors or the Chair of the department.



## 2. Research Students

### 2.1 Approved Categories

2.1.1 The following categories of students can register for research degrees:

- a) Regular full-time students
- b) ME / M Tech/ M Des students that are transferred to the Ph D programme
- c) Regular full-time staff members of the Institute
- d) Persons sponsored under the Quality Improvement Programme (QIP)
- e) Candidates sponsored by organizations with which the Institute has collaborative MoU arrangements.
- f) Candidates under the External Registration Programme
- g) Foreign nationals

### 2.2 Orientation Programme

Immediately on admission, students undergo an orientation programme, to familiarize them with departmental research activities and to establish a rapport with the faculty.

#### 2.2.1 Research Supervisor

Each student is assigned to a research supervisor, keeping the following in view:

- a) The research interests of the student.
- b) The need of the department to maintain an equitable distribution among its research programmes/faculty members.

Students choose the topic of research based on the advice of the research supervisor.

### 2.3 Duration

2.3.1 The period of residence is as follows:

Period of Residence (in years)			
Category of registrants	Normal	Minimum	Maximum
Ph D	5	2 <sup>*</sup> / 3 <sup>**</sup>	6
M Sc (Engg.)	2	1	3

\* For registrants with M Tech / M Sc (Engg.) qualification

\*\* For registrants with M Sc/BE/B Tech qualification

### 2.4 Registration

2.4.1 At the time of joining, the student submits the scholarship application form and the Code of Ethics form.

2.4.2 After being assigned to a Research Supervisor, he/she submits a registration form. This should be done preferably within 2 weeks of joining the Institute. Registration is effective from the date of joining.

## 2.5 Research Training Programme

A student will register for a set of courses which will constitute the Research Training Programme (RTP) for that student as advised by the Research Supervisor(s), with the approval of the Departmental Curriculum Committee (DCC). These are termed RTP courses.

2.5.1.1. A research student may credit courses in addition to the ones required for RTP. These are the non-RTP courses and maybe taken before or after the Comprehensive/General Test. There is no restriction on the number of such courses. Only courses with grades C or better will be listed in the transcript; these grades are not used for calculating the CGPA.

2.5.1.2 RTP and non-RTP courses have to be chosen after careful consultation with the Research Supervisor/DCC. RTP and non-RTP courses cannot be interchanged after the registration.

2.5.2 The minimum number of credits that student has to complete and the maximum number of credits the student is allowed to register under RTP courses are as follows:

Qualification	Minimum	Maximum
(i) Candidates registering for Ph D in the Engineering Faculty		
M E/M Tech/M Sc(Engg) or equivalent qualification	6	15
B E/B Tech/M Sc or equivalent qualification	18	27
After transfer from M E/M Tech programme at the Institute	18	27
After upgradation from MSc (Engg) at the Institute [This would include credits already completed during MSc (Engg.)	18	27
Continuation after submitting M Sc (Engg.) thesis at the Institute	6	15
(ii) Candidates registering for MSc (Engg.)	12	21
(i) Candidates registering for Ph D in Science	12	21

2.5.3 After successful completion of the RTP, the Research Supervisor(s) and the department will initiate the process of forming the Comprehensive Examination/ General Test Board or recommend waiver of the General Test for MSc (Engg).

**2.5.3.1** For a non-RTP courses the grade will be reflected on the transcript only if the grade obtained is 'C' or above; otherwise the course will be treated as being dropped without mentioning in the transcript.

**2.5.4** The RTP should be completed within one year for Ph D and within 6 months for M Sc (Engg.) from the date of registration. A grace period of 6 months may be allowed with prior approval of the DCC. Any further delay is to be approved by the Deans on merits of the case.

**2.5.5** A student can drop courses with the approval of the Research Supervisor(s). However, even in such cases, the time limitations specified in Section 2.5.4 must be complied with.

**2.5.6** A student is deemed to have completed the RTP successfully and will be eligible to appear for the comprehensive examination /general test if the following conditions are met:

(i) The student must pass all courses with grade D or higher with the exception of a Single F grade, which is permitted.

(ii) The student must secure CGPA of 5.5 or more. This CGPA will be computed using a basket rule. According to this rule, the best grades of all the courses that make up the minimum RTP credit requirement will be considered for computation. The minimum RTP credit requirement is given in Section 2.5.2.

**2.5.7** If a student fails to get at least CGPA of 5.5 according to basket rule even after taking maximum permissible credits for the programme or obtains more than one F grade, he/she shall leave the Institute.

**2.5.8** The transcript will list all the courses taken by the student and the CGPA in the transcript will be computed taking into account the grades secured in all the courses. Grades obtained in the non-RTP courses will be listed separately.

## **2.6 Comprehensive Examination/General Test**

**2.6.1** After successful completion of the RTP, the candidate has to take the Ph D Comprehensive Examination / M Sc (Engg.) General Test within the time period indicated below:

Ph.D: Within 2 years (preferably within 1½ years) from the date of registration.

M Sc (Engg.) : Within 1½ years (preferably within 1 year) from the date of registration.

Note: The General Test may be waived for M Sc (Engg.) students who complete the RTP within two semesters, with a CGPA of at least 6.0, and with grades of C and above in all courses. (For this purpose, the CGPA is computed by taking the grades of all courses, and the Basket Rule does not apply). Students wishing to seek a waiver should apply through the Research Supervisor to the Assistant Registrar, Academic. On approval by

the Senate Committee on Research Conferments (SCRC), the candidacy will be confirmed.

- 2.6.1.1** The Comprehensive Examination/General Test is conducted by a Board appointed by the SCRC. The Research Supervisor(s) frames the syllabus for this examination.
- 2.6.2** The conduct of the Comprehensive Examination/General Test will not be permitted unless:
- (a) Tuition and all other fees are paid
  - (b) Hostel dues up to the current month are cleared.
- 2.6.3** If a student fails the Comprehensive Examination/General Test in the first attempt, he/she may be allowed to appear once again within the next two months. In the event of a failure in the second attempt, he/she will be asked to leave the Institute.
- 2.6.4** Passing the Comprehensive Examination/General Test and getting the candidacy confirmed (Refer to Section 2.7) are prerequisites for submitting the thesis.

## **2.7 Candidacy**

- 2.7.1** After the student completes the RTP and passes the Comprehensive Examination/General Test, the SCRC confirms his/her candidacy for the research conferment.

## **2.8 Upgrading of Registration from M Sc (Engg.) to Ph D**

- 2.8.1** Upgrading of registration from M Sc (Engg.) to Ph D is possible for a candidate who obtains a minimum CGPA of 6.5 and has taken courses amounting to at least 12 credits (In this computation of the CGPA, the Basket Rule does not apply, and one considers all courses credited). In special cases, upgrading may be permitted if the CGPA is not less than 6.0, on the specific recommendation of the Committee, citing other visible academic strengths of the candidate.
- 2.8.1.1** Interested candidates should submit a request through the Research Supervisor at the end of the second or third terms.
- 2.8.1.2** All such requests will be considered initially by a Committee consisting of the following:

Chair of the department\* – Chairperson  
Two Faculty members from the department  
Research Supervisor/s for M Sc (Engg.)  
Proposed Research Supervisor/s for Ph D

\*where the Chair is the current or the proposed Research Supervisor, he/she will identify another faculty member of the department to chair the committee.

**2.8.1.3** The recommendation of the Committee should be received by the SCRC before 30 June/30 January and will be considered in July/February. If upgrading is approved, the date of registration for Ph D will be the date of registration for M Sc (Engg.). A scholarship of Rs. 25,000/- p.m. will be paid with effect from the date of joining MSc (Engg.). An enhanced scholarship of Rs. 28,000/- p.m. will be paid on successful completion of the Comprehensive Examination or on completion of two years, whichever is later.

**2.8.2** The candidate should complete the RTP with a minimum of 18 credits. The RTP and the Comprehensive Examination should be completed within two years from the date of registration.

**2.8.3** The total period of scholarship will be same as that for a regular Ph D student registering directly for the Ph D degree, i.e., 5 years.

**2.9 Continuation for Ph D after Submission of Thesis for M Sc (Engg.)**

**2.9.1** A candidate desiring to continue for Ph.D. after submission of the M Sc (Engg.) thesis should apply through the Research Supervisor within 15 days of thesis submission.

**2.9.2** All such requests will be considered initially by a Committee consisting of the following:

Chair of the department\* – Chairperson  
Two Faculty members from the department  
Research Supervisor/s for M Sc (Engg.)  
Research Supervisor/s (proposed) for Ph D

\*where the Chair is the current or the proposed Research Supervisor, he/she will identify another faculty member of the department to chair the committee.

**2.9.3** To be eligible, the candidate should have secured a CGPA of 6.5 (considering all courses credited, and not just the minimum required for completing the RTP). In special cases, this may be relaxed to a CGPA of not less than 6.0, on the specific recommendation of the Committee, citing other visible academic strengths of the candidate.

**2.9.4** Research publications arising out of the M Sc (Engg.) work would be a positive factor.

**2.9.5** Timely submission of the M Sc (Engg.) thesis is an important criterion for judging research ability. Students who have had their M Sc (Engg.) registration cancelled are not eligible for continuation for Ph D.

**2.9.6** After receiving the approval of the SCRC, the candidate should apply for Ph D registration, which would be provisional, subject to the award of the M Sc (Engg.) degree.

**2.9.7** The date of registration for the Ph D degree will be the date of submission of the M Sc (Engg.) thesis.

**2.9.8** The candidate is eligible for scholarship from the date of the Ph D registration on the terms applicable to students who register for Ph D with an M E or M Tech qualification.

**2.9.9** The candidate should complete the RTP by taking at least 6 additional credits, irrespective of the number of credits taken at the M Sc (Engg.) level.

## **2.10 Monitoring the Progress of Research Students**

### **2.10.1 Ph D Registrants**

Monitoring will be done as follows:

By the Comprehensive Examination Board – at the time of the Comprehensive Examination  
By the Departmental Committee – at the end of the 3rd year

By the Dean's Committee – at the end of 4 years  
By the Director's Committee – at the end of 5 years

All problem cases will be considered for cancellation of registration.

### **2.10.2 M Sc (Engg.) Registrants**

Monitoring will be done as follows:

By the General Test Board at the time of the General Test. (For those exempted from the General Test, a Departmental Committee will carry out a review at the end of 1 ½ years)

By the Dean's Committee – at the end of 2 years

By the Director's Committee – at the end of 2½ years  
By the Director's Committee – at the end of 3 years

All problem cases will be considered for cancellation of registration.

### **2.10.3. Cancellation of Registration**

If a student does not submit the Ph D/ M Sc (Engg.) thesis within 6 years / 3 years, respectively, his/her registration will be automatically cancelled without any notification. The student is debarred from submitting his/her thesis after the cancellation of registration.

### **2.10.4 Revocation of Cancellation of Registration**

**2.10.4.1** After the cancellation of registration, the student can submit the thesis only after getting the cancellation revoked. He/she must initiate this process by submitting of a draft thesis, along with a letter to the Dean furnishing justifiable reasons for the delay in thesis submission. The Research Supervisor should forward this letter and the draft thesis through the Chair of the Department, along with a letter in support of the appeal.

**2.10.4.2** The Dean may seek the opinion of experts, if required. In deserving cases, he will recommend the revocation to the Chairman of the Senate. The norms are as follows:

Sl. No.	Programme	Maximum time limit for submission of thesis	Time limit for revocation of cancellation of registration
1	Ph.D.	6 years	8 years
2	Integrated Ph.D.	8 years	10 years
3	M Sc (Engg.)	3 years	4 years

**2.10.4.3** These norms are applicable to all categories of research students including staff registrants, external registrants, other sponsored candidates and QIP Scholars.

### **2.11 Break in Studies**

**2.11.1** Students can be permitted a break in studies only on medical grounds, on production of a medical certificate issued by the Chief Medical Officer (CMO) of the Institute. Permission from the SCRC must be sought as soon as the problem is manifest. The break is for a maximum period of one year.

**2.11.2** If prior permission is not obtained, it will be considered as a case of discontinuation, and action will be taken to cancel the registration.

**2.11.3** The student must pay tuition and all other fees during the break period.

**2.11.4** For resumption of studies, a Fitness Certificate issued by the CMO of the Institute is essential.

### **2.12 Submission of Thesis**

**2.12.1** The thesis alongwith synopsis have to submit. A synopsis not exceeding two pages is to be submitted, both as a hard copy and in electronic format. This facilitates the finalization of the panel of examiners.

**2.12.2** M Sc (Engg.) thesis work should display a good mastery of the background literature and give evidence of some originality in interpretation of data, development of new experimental or theoretical techniques, or addition to existing knowledge.

**12.12.3** Ph D thesis work should show substantial contribution to the advancement of scientific and/or industrial knowledge design or development. It is evaluated primarily on the quality and quantity of its contribution to new knowledge, interpreted in the widest sense to include instrumentation and applied work of an innovative nature. The thesis should show evidence of critical evaluation and judgement, and good mastery of the background literature, as well as the candidate's capacity to relate his/her specialized research to the broader framework of the general discipline within which it falls.



- 2.12.2 The applicant (student/candidate) is required to give a colloquium on the thesis work before submitting the synopsis. The approved time frame for holding the Colloquium for various Research programme is as follows:

Programme	Time Frame
Ph.D	In the fifth year or earlier
Int. Ph.D	In the Seventh year or earlier
M Sc (Engg.)	Between 2 to 2 1/2 years or earlier

### 2.13 Thesis Fee

- 2.13.1 The following fees have to be paid when submitting the thesis:

Programme	Revised
For M Sc (Engg.)	2,500
Ph D	4,000

### 2.14 Continuing After Submission of Thesis

- 2.14.1 With prior approval from the Deans, full-time Ph D students can continue research work at the Institute from the date of thesis submission up to the successful completion of the oral examination. A formal request must be made through the Research Supervisor(s) while submitting the thesis.

- 2.14.2 Early submission of thesis: A student who submits the thesis within five years from the date of joining may be designated as IISc-Junior Research Associate, from the date of submission of the thesis up to the date of the oral examination. Accommodation will be provided (subject to availability), while mess facility will be provided on demand. After award of the degree by the council of the Institute, the candidate may be considered for appointment as an IISc Research Associate for a further period of one year (The Maximum period is 18 months only for JRA&RA).

### 2.15 Oral Examination

- 2.15.1 The student is required to take an oral examination on the thesis. An undertaking to this effect should be submitted along with the thesis.
- 2.15.2 Failure to attend the oral examination within six months of receiving the reports of all examiners will lead to cancellation of registration.

### 2.16 Privileges and Responsibilities

- 2.16.1 Regular full-time students are eligible for the following:
- i) Residence in the hostel, subject to availability
  - ii) Participation in the Students' Assistance Programme
  - iii) Assistance from Students' Aid Fund (SAF)
  - iv) Leave privileges
  - v) Limited assistance from the Special Medical Care Scheme
  - vi) Membership of the Gymkhana, and
  - viii) Participation in the activities of the Students' Council



## 2.16.2 Scheme and Project Staff

2.16.2 Students who are admitted as regular full-time students but later join identified sponsored schemes or projects for short periods, and will be resuming full-time research studentship subsequently, shall carry with them all the privileges and responsibilities that are available for regular full-time students.

## 2.16.3 QIP Scholars:

2.16.3.1 They are governed by the specific rules of the AICTE / MHRD with regard to scholarship, duration of stay, leave, etc. They are eligible for hostel accommodation (subject to availability) and membership of the Gymkhana.

2.16.3.2 For all other purposes, they will be governed by the same rules as are applicable to regular full-time students.

## 2.16.4 Sponsored Candidates from Other Institutions:

With regard to privileges and responsibilities, they are treated on par with staff registrants.

## 2.17. Registration by Full-Time Staff Members of the Institute

2.17.1 A staff member such as Scientific Officer/Technical Officer/Scientific Assistant/Lab Assistant who has put in a minimum of 3 years of continuous service in a regular position can apply for registration in the Ph D programme of the Institute without detriment to his/her normal work, provided he/she possesses the required academic qualifications.

2.17.1.1 The department should ensure that there is sufficient proof of his/her ability to undertake research work.

2.17.1.2 After obtaining administrative approval, the application should be forwarded by the Chair of the department to the Academic Section along with the recommendation of the COP of the department.

2.17.1.3 The Chair is also required to certify that

- (a) Departmental work will not be affected
- (b) The duties of the staff member are consistent with the proposed academic degree
- (c) The work of the students, technical support, etc., would not be affected; and
- (d) The registration would improve the teaching and research capabilities of the staff member and his/her work in the laboratories as well as in developmental tasks.

2.17.1.4 Before being considered by the SCRC, a Committee consisting of the following would judge the academic suitability of the candidate:

Dean of the Faculty concerned or his/her nominee – Chairperson of the department \*

One expert from within the department (other than the Research Supervisor)

An expert in the area from outside the department Proposed Research Supervisor(s)

\*where the Chairperson is the Research Supervisor, he/she will identify another member of the faculty of the department to serve in his place.

**2.17.1.5** The registration of staff members is made only twice a year, before the August and January terms. All the above processes should be completed well before the beginning of the term and the registration shall be from the first day of the term.

**2.17.1.6** The minimum period of residence for a staff registrant is the same as for regular students.

## **2.18 General**

**2.18.1** On all matters connected with research work and the prescribed requirements for research degrees, students are advised to seek guidance from their Research Supervisor(s) and the Chair of the department.

## 3. Integrated Ph D Students

### 3.1 The period of residence is as follows:

Normal	Minimum	Maximum
6 years	4 years	8 years

#### 3.1.1 Course/Project Work:

3.1.1.1 All students must complete a total of 64 credits by the end of two years.

3.1.1.2 The course work during the first year will predominantly consist of a common programme for all students, independent of the future research area.

3.1.1.3 At the end of the second term, the Divisional Committee will assign each student to a Research Supervisor, taking into account the following factors:

- (a) The student's research interest and performance in the course work
- (b) The research programmes of the Division as a whole, and
- (c) The consent of the faculty member concerned.

This process must be completed before the beginning of the second year, and this information communicated to the Academic Section.

3.1.1.4 The third term and the fourth term course work are chosen on the advice of the research supervisor.

3.1.1.5 In the third term, the student should commence the research work leading to the Ph D Degree.

#### 3.1.2 Dropping of courses

Not more than one course per term may be dropped on the recommendation of the Divisional Committee/Department Curriculum Committee (DCC).

#### 3.1.3 Exemption:

3.1.3.1 Within 15 days of registering for a core course, a student may apply to the Coordinator, Int. Ph D Programme seeking exemption from it on the basis of his/her prior background. This option is available to all students other than those in Chemical Sciences. If the Coordinator approves, the student will be given a written examination, in accordance with the schedule indicated below:

	I Term	II Term	Summer Term
Written examination deadline	15 Sep	15 Feb	20 May

3.1.3.2 Exemption is granted if the student secures a B or a higher grade in this examination. He/she will be given the same grade in the course as the one obtained in the written examination, the credits will count towards the degree requirements, and they will be used for the computation of the TGPA/CGPA.

3.1.3.3 The student should continue to attend classes until the result is declared. If exemption is not granted, he/she should continue as a regular student.

3.1.3.4 Exemption is permitted up to a maximum of 6 credits during the entire period of studentship.

## 3.2 Continuous Assessment

- 3.2.1 In the first term, the student requires a TGPA of not less than 5.0, and in the second and third terms he/she should have a CGPA of not less than 5.5. At the end of the fourth term, a student should obtain a minimum CGPA of 5.5 in the course work including the project (and with at least Grade C in the project), for satisfactory completion of the course programme. If a student secured below 5.5 CGPA in the subsequent term, he/she shall leave the Institute. If a student secures a grade 'D' in the project, he/she will be given another opportunity to redo the project and improve the grade. A student who secures grade 'F' in the project, or who cannot improve the D grade on redoing the project shall leave the Institute.
- 3.2.2 If a student gets grade 'F' in a course, he/she will be required to repeat the same or to take an equivalent course. If the student gets an F grade in the replacement course, he/she will be asked to leave the Institute. Such repetition of courses is permitted only to clear F grades.
- 3.2.3 If a student obtains more than two 'F' grades during the entire programme, he/she shall leave the Institute.
- 3.2.4 A student may register again in a subsequent term for a course which he/she dropped in a previous term.
- 3.2.5 If a student wants to take elective courses beyond the required credits, he/she needs prior permission of the DCC.

## 3.3 Comprehensive Examination

- 3.3.1 After successful completion of the course requirements, the student is required to undergo a Comprehensive Examination at the end of second year or not later than August 31 in the third year.
- 3.3.2 The examination is conducted by a Board appointed by the Senate Committee on Research Conferments (SCRC). The syllabus is chosen by the research supervisor(s).
- 3.3.3 The Comprehensive Examination Board will recommend any one of the following :
- (a) The student can continue towards the Ph D degree
  - (b) He /she can continue only for the M S degree
  - (c) He /she will be asked to discontinue.
- (a) Students who continue for their Ph D degree  
The rules of the Ph D programme apply
- (b) Students recommended only for M S degree

The minimum residency period for MS is 2 years from the date of joining. The thesis should preferably be submitted on or before 31<sup>st</sup> of March of the third year. If it is not submitted before 31<sup>st</sup> July of that year, the registration stands cancelled.

(c) **Students who are advised to leave the Institute:**

Discontinuation will be with effect from the date of the Comprehensive Examination.

3.3.4 Students will not be permitted to take the Comprehensive Examination unless:

- a) Tuition and other fees are paid;
- b) Hostel dues up to the current month are cleared.

3.4 **Candidacy**

3.4.1 On the basis of the recommendation of the Comprehensive Examination Board, the SCRC confirms the candidacy of the student for the research conferment of either Ph D or M S.

3.4.2 Students continuing for the Ph.D. receive an enhancement of their scholarship. Candidates carrying out research towards M S thesis are not eligible for this enhancement.

3.4.3 Successful defense of the Ph D thesis is qualification for the award of both Master's (MS) and Ph D degrees.

3.5 **Monitoring of Progress**

3.5.1 Monitoring will be done as follows:

By the Comprehensive Examination Board	: at the end of 2 years
By the Departmental Committee	: at the end of the 3 <sup>rd</sup> and 4 <sup>th</sup> years
By the Dean's Committee	: at the end of 6 years
By the Director's Committee	: at the end of 7 years.

3.5.2 All problem cases will be considered for cancellation of registration.

3.5.3 The Dean processes the requests for revocation of cancellation of registration. If required, he/she may seek the opinion of experts. In deserving cases, he/ she will recommend revocation of cancellation of registration to the Chairman of the Senate.

3.6 **Break in Studies**

3.6.1 Students can be permitted a break in studies only on medical grounds, on production of a medical certificate issued by the Chief Medical Officer (CMO) of the Institute. Permission from the SCRC must be sought as soon as the problem is manifest. The break is for a maximum period of one year.

3.6.2 If prior permission is not obtained, it will be a case of discontinuation and action will be taken to cancel registration.

3.6.3 During the break in studies, the student must pay the applicable tuition and other fees.

3.6.4 For resumption of studies, a Fitness Certificate issued by the CMO of the Institute is essential.

3.7 **Submission of Thesis**

3.7.1 Two weeks in advance of the probable date of thesis submission, a synopsis not exceeding four pages is to be submitted, both as a hard copy and in

electronic format. Before submitting the synopsis, the supplicant is required to give a colloquium on the thesis work

**3.7.2** The thesis fee of Rs 4,000/- for Ph D Degree (Rs 2,500/- for M S) has to be paid while submitting the thesis.

### **3.8 Oral Examination**

**3.8.1** Students are required to take an oral examination as arranged at the Institute. An undertaking to this effect should be given while submitting the thesis.

**3.8.2.** Failure to attend the oral examination may lead to cancellation of the registration.

### **3.9 Early Submission of Thesis**

**3.9.1** A student who submits the thesis within five years for Regular Ph D & Seven years for Int. Ph D from the date of joining may be designated as IISc-Junior Research Associate from the date of submission of the thesis to the date of oral examination.

**3.9.2** After award of Ph D degree by the Council of the Institute, the candidate may be considered for appointment as an 'IISc Research Associate' for a further period. [Total period of JRA & RA is maximum 18 months only].

## 4. External Registration Programme Students

### 4.1 Registration

- 4.1.1 Candidates register immediately on joining, by submitting a registration form that is to be forwarded by the department to the Academic Section, along with the following:
- (a) A research proposal drawn up in consultation with research supervisors from the organization and from the Institute.
  - (b) A determination of adequacy of scientific facilities at the organization for work leading to a research degree.
  - (c) An assurance from the organization that
    - i) The proposed research work will constitute part of the programme of the organization.
    - ii) The necessary facilities will be provided to the registrant for his/her research work.
    - iii) The research supervisor from the Institute will be given access to the facilities necessary for the research work of the registrant in the organization.
    - iv) The necessary leave will be given to enable the registrant to complete the research training programme.
  - (d) An undertaking that the candidate is not registered for academic conferment at any other institution.

### 4.2 Research Supervisors

- 4.2.1 The candidate will work under the supervision of at least one research supervisor from the Institute and one from the sponsoring organization.
- 4.2.2 For Ph D candidates, the research supervisor(s) from the organization should have a Ph D degree.

### 4.3 Change of Organization

- 4.3.1 If the candidate changes the place of work or leaves the organization, the registration will be cancelled, irrespective of the stage of research work (except in cases where the thesis has already been submitted).
- 4.3.2 If the research supervisor from the organization leaves the organization, or changes the place of work, the candidate should apply to the SCRC for a change of guide along with a CV of the proposed organization guide and permission letter from the Organization.

### 4.4 Candidates Going Abroad

- 4.4.1 If a candidate goes abroad before the completion of the Comprehensive Examination/General Test, the registration will be cancelled. Prior permission

from the SCRC to be obtained to apply for No-objection Certificate to go abroad.

4.4.2 After the Comprehensive Examination, travel abroad requires prior permission of the Deans.

4.4.3 The maximum period of such absence is one year, and if the candidate does not return at the end of this period, the registration will be cancelled.

#### 4.5 Duration of Work and Research Training Programme (RTP)

4.5.1 The norms for successful completion of the RTP and the minimum period for submission of thesis are the same as for regular students.

4.5.2 Candidates must spend a minimum period of one term in residence at the Institute to complete the RTP. This should be the first term after joining. Ph D candidates with B E/B Tech/M Sc qualifications may need to be in residence for two terms.

#### 4.6 Progress Reports and Monitoring of the Progress of the Research Work

4.6.1 The registrant must submit half yearly progress reports, signed by both the research supervisors and forwarded through the Chair of the department. He/she is also required to be in constant touch with the research supervisor from the Institute. In case these conditions are not met, registration will be cancelled.

4.6.2 The research supervisor from the Institute has the primary responsibility of monitoring the progress of the research work.

4.6.3 The time schedules and procedures are the same as those of regular Ph D and M Sc (Engg.) registrants.

#### 4.7 Comprehensive Examination/General Test

4.7.1 The norms are identical to those for regular students.

#### 4.8 Candidacy

4.8.1 After the SCRC obtains the report from the CE Board with regard to successful completion of the RTP and the Comprehensive Examination, it will confirm the candidacy of the student for the research conferment.



## 5. Discipline, Attendance and Leave Rules

### 5.1 Discipline

- 5.1.1 Students are expected to dress and to conduct themselves in a proper manner.
- 5.1.2 All forms of ragging are prohibited. If any incident of ragging comes to the notice of the authorities, the student will be given the opportunity to explain. If the explanation is not found to be satisfactory, the authorities can expel him/her from the Institute.
- 5.1.3 Students are expected to conduct themselves in a manner that provides a safe working environment for women. Sexual harassment of any kind is unacceptable and will attract disciplinary action. Further details can be obtained from the web site <http://biochem.iisc.ernet.in/~bchss/policy.htm>

### 5.2 Attendance

- 5.2.1 Students are required to attend lectures and other academic activities. Applications for leave of absence are to be made through the Advisor or Research Supervisor(s). Any type of absence for more than 10 days should be notified to the Academic Section immediately.

### 5.3 Leave

- 5.3.1 A student is eligible for the following leave:
  - 5.3.1.1 Leave on personal grounds: 30 days a year with scholarship.
  - 5.3.1.2 Leave on medical grounds: Up to 30 days a year with scholarship for extended sickness normally requiring hospitalization.
  - 5.3.1.3 Women research scholars can avail of maternity leave for 135 days with scholarship once during the tenure of studentship.
- 5.3.2 Medical leave for periods of less than 7 days is not permitted.
- 5.3.3 For leave under 5.3.1.2 and 5.3.1.3, a Medical Certificate and a subsequent Fitness Certificate from the CMO of the Institute are required for resumption of studies.
- 5.3.4 A combination of different types of leave is not normally permitted.
- 5.3.5 No carry-over of leave is permitted. Any unused leave under categories 5.3.1.1 and 5.3.1.2 will automatically lapse at the end of the year.
- 5.3.6 With regard to leave, the year is reckoned as follows :
  - For Research students: From the date of joining.
  - For Course students: From the date of commencement of the first term, irrespective of the date of joining.
- 5.3.7 Leave availed in excess of the permissible limit will be treated as leave without scholarship.

5.3.8 Students permitted to attend approved conferences may be considered to be on duty.

5.3.9 Students going abroad for collaborative research work with the approval of the SCRC are entitled to get their scholarship for up to three months for M Sc (Engg.) candidates and for up to 6 months for Ph D candidates.

## 6. Code of Ethics and Conduct

6.1 At the time of admission, each student must sign a statement accepting the code of ethics and conduct, and giving an undertaking that:

- (a) he/she will complete his/her studies in the Institute; and
- (b) if he/she is forced to discontinue studies for any legitimate reasons, it will be done only with permission from the Deans.

6.2 If a student commits a breach of the code of conduct, he/she will be asked to leave the Institute and will not be eligible for the following:

6.2.1 Re-admission for a period of three years; and

6.2.2 Issue of grade card or certificate for the courses studied or work carried out.

6.3 On account of misconduct or unsatisfactory work, the Deans may withdraw the scholarship at any time and/or decide that the scholarship has to be refunded from the date of the last award.

6.4 In various phases, one is faced with issues of integrity and conflict of interest. Behaviour of all Institute faculty, students and research workers must be in conformance with the Academic Integrity policy that is given in the next Section.

## 7. The Sexual Harassment Complaint Committee

Sexual harassment includes such unwelcome sexually determined behaviour (whether directly or by implication) as physical contact and advances, demand or request for sexual favours, sexually coloured remarks, any other unwelcome physical, verbal or non-verbal conduct of a sexual nature. It is discriminatory when the aggrieved has reasonable ground to believe that their objection would disadvantage them in connection with their employment, or when it creates a hostile working environment. In accordance with the Hon'ble Supreme Court's decision, a Sexual Harassment Complaint Committee (SHCC) was constituted in April 2003. The SHCC will provide equal opportunity for all IISc personnel, without regard to gender or age, to lodge complaints of any sexual harassment in the work place. The affront to personal dignity that occurs as a result of sexual and other types of harassment constitutes an action unbecoming of a student/ staff member of the Institute and will attract appropriate disciplinary action. Complaints may be made verbally or in writing at any time.

## 8. Academic Integrity

**8.1** Cases of ethical lapses within institutions of scientific research are increasingly being reported in the news. In this context, we need to create awareness and come up with a set of clear guidelines to maintain academic integrity. A flourishing academic environment entails individual and community responsibility for doing so. The three broad categories of improper academic behaviour to be considered are: I) plagiarism, II) cheating and III) conflict of interest.

**8.2** Cases of plagiarism are the use of material, ideas, figures, code or data without appropriate acknowledgement or permission (in some cases) of the original source. This may involve submission of material, verbatim or paraphrased, that is authored by another person or published earlier by oneself. Examples of plagiarism include:

- (a) Reproducing, in whole or part, text/sentences from a report, book, thesis, publication or the internet.
- (b) Reproducing one's own previously published data, illustrations, figures, images, or someone else's data, etc.
- (c) Taking material from class-notes or downloading material from internet sites, and incorporating it in one's class reports, presentations, manuscripts or thesis without citing the original source.
- (d) Self-plagiarism, which constitutes copying verbatim from one's own earlier published work in a journal or conference proceedings without appropriate citations.

The resources given in Subsection 7.7 explain how to carry out proper referencing, as well as examples of plagiarism and how to avoid it.

**8.3** Cheating is another form of unacceptable academic behaviour and may be classified into different categories:

- (a) Copying during exams, and copying of homework assignments, term papers or manuscripts.
- (b) Allowing or facilitating copying, or writing a report or exam for someone else.
- (c) Using unauthorized material, copying, collaborating when not authorized, and purchasing or borrowing papers or material from various sources.
- (d) Fabricating (making up) or falsifying (manipulating) data and reporting them in thesis and publications.

**8.4** Guidelines for academic conduct are provided below to guard against negligence as well as deliberate dishonesty:

- (a) Use proper methodology for experiments and computational work. Accurately describe and compile data.

- (b) Carefully record and save primary and secondary data such as original pictures, instrument data readouts, laboratory notebooks, and computer folders. There should be minimal digital manipulation of images/photos; the original version should be saved for later scrutiny, if required, and the changes made should be clearly described.
- (c) Ensure robust reproducibility and statistical analysis of experiments and simulations. It is important to be truthful about the data and not to omit some data points to make an impressive figure (commonly known as “cherry picking”).
- (d) Lab notebooks must be well maintained in bound notebooks with printed page numbers to enable checking later during publications or patent. Date should be indicated on each page.
- (e) Write clearly in your own words. It is necessary to resist the temptation to “copy and paste” from the internet or other sources for class assignments, manuscripts and thesis.
- (f) Give due credit to previous reports, methods, computer programs, etc. with appropriate citations. Material taken from your own published work should also be cited; as mentioned above, it will be considered self-plagiarism otherwise.

**8.5** Conflict of Interest: A clash of personal or private interests with professional activities can lead to a potential conflict of interest, in diverse activities such as teaching, research, publication, work on committees, research funding and consultancy. It is necessary to protect actual professional independence, objectivity and commitment, and also to avoid an appearance of any impropriety arising from conflicts of interest. Conflict of interest is not restricted to personal financial gain; it extends to a large gamut of professional academic activities including peer reviewing, serving on various committees, which may, for example, oversee funding or give recognition, as well as influencing public policy. To promote transparency and enhance credibility, potential conflicts of interests must be disclosed in writing to appropriate authorities, so that a considered decision can be made on a case-by-case basis. Some additional information is available also in the section below dealing with resources.

**8.6** Individual and Collective Responsibility: The responsibility varies with the role one plays.

**8.6.1** Student roles: Before submitting a thesis (M E, M Sc, or Ph D) to the department, the student is responsible for checking the thesis for plagiarism using software that is available on the web (see resources below). In addition, the student should certify that they are aware of the academic guidelines of the Institute, have checked their document for plagiarism, and that the thesis is original work. A web-check does not necessarily rule out plagiarism.

**8.6.2** Faculty roles: Faculty should ensure that proper methods are followed for experiments, computations and theoretical developments, and that data are properly recorded and saved for future reference. In addition, they should

review manuscripts and theses carefully. Apart from the student certification regarding a web-check for plagiarism for theses, the Institute will provide some commercial software at SERC for plagiarism checking. Faculty members are encouraged to use this facility for checking reports, theses and manuscripts. Faculty members are also responsible for ensuring personal compliance with the above broad issues relating to academic integrity.

**8.6.3** Institutional roles: A breach of academic integrity is a serious offence with long lasting consequences for both the individual and the Institute, and this can lead to various sanctions. In the case of a student the first violation of academic breach will lead to a warning and/or an “F” course grade. A repeat offence, if deemed sufficiently serious, could lead to expulsion. It is recommended that faculty bring any academic violations to the notice of the department chairman. Upon receipt of reports of scientific misconduct, the Director may appoint a committee to investigate the matter and suggest appropriate measures on a case to case basis.

#### **8.7** References:

- [1] National Academy of Sciences article “On being a scientist,” [http://www.nap.edu/openbook.php?record\\_id=4917&page=R1](http://www.nap.edu/openbook.php?record_id=4917&page=R1)
- [2] <http://www.admin.cam.ac.uk/univ/plagiarism/>
- [3] <http://www.aresearchguide.com/6plagiar.html>
- [4] <https://www.indiana.edu/~tedfrick/plagiarism>
- [5] <http://www.files.chem.vt.edu/chem-ed/ethics/index.html>
- [6] [http://www.ncusd203.org/central/html/where/plagiarism\\_stoppers.html](http://www.ncusd203.org/central/html/where/plagiarism_stoppers.html)
- [7] <http://sja.ucdavis.edu/files/plagiarism.pdf>
- [8] <http://web.mit.edu/academicintegrity/>
- [9] <http://www.northwestern.edu/provost/students/integrity/>
- [10] <http://www.ais.up.ac.za/plagiarism/websources.htm#info>
- [11] <http://ori.dhhs.gov/>
- [12] <http://www.scientificvalues.org/cases.html>

## 9. Tuition and Other Fees

Students are required to pay the fees prescribed by the Institute. These are liable to changes from time to time. The details of the fees in force are given below:

### 9.1. Fees per annum (All figures in Rupees) :

#### 9.1.1 Regular and QIP Full-Time Students

Fee Details	Ph D	MSc (Engg)	*Int Ph D	ME/ MTech/ M Des	M Mgt.	Sponsored ME / MTech	Sponsored Ph D
Tuition Fee	15,000	9,000	9,000	9,000	1,00,000	14000	20000
Gymkhana Fee	1,000	1,000	1,000	1,000	1,000	1000	1000
Students' Emergency Fund	300	300	300	300	300	300	300
Other Academic Fees	3,700	3,700	3,700	3,700	50,000	3,700	3,700
<b>Total</b>	<b>20,000</b>	<b>14,000</b>	<b>14,000*</b>	<b>14,000</b>	<b>1,51,300</b>	<b>19000</b>	<b>25000</b>

\*for the first two years, and thereafter on par with Ph D students

#### 9.1.2. Sponsored Candidates from DRDO / DEFENCE / BARC / ISRO / NAL (Except ERP candidates):

Fee Details	Ph D	M Sc (Engg.)	ME/M.Tech / M Des
Tuition Fee	15,000	9,000	9,000
Gymkhana Fee	1,000	1,000	1,000
Students' Emergency Fund	300	300	300
Other Academic Fees	3,700	3,700	3,700
<b>Total</b>	<b>20,000</b>	<b>14,000</b>	<b>14,000</b>

#### 9.1.3. External Registration Programme Ph D Students:

Fee Details	Students from Government Organizations	Students from Private Organizations
Tuition Fee	40,000	80,000
Gymkhana Fee	1000	1000
Students' Emergency Fund	300	300
Other Academic Fees	3,700	3,700
<b>Total</b>	<b>45,000</b>	<b>85,000</b>

## 9.2. Fee Payment Schedule

Regular (For the session 2015-16)

For General Candidates

Fees payable from 2nd year onwards:

Programme	Tuition Fee (in `)	Other Fees (in `)	Instalment	Total (in `)
Ph D	5,000	5,000	I	10,000
	5,000	-	II	5,000
	5,000	-	III	5,000
MSc (Engg.)	3,000	5,000	I	8,000
	3,000	-	II	3,000
	3,000	-	III	3,000
ME/M Tech/ MDes	3,000	5,000	I	8,000
	3,000	-	II	3,000
	3,000	-	III	3,000
M. Mgt	1,00,000	51,300	I	51,300
			II	50,000
			III	50,000
Int. Ph D*	8,000	-	I	8,000
	3,000	-	II	3,000
	3,000	-	III	3,000

\* From the third year onwards they have to pay fees as applicable to Ph D. students

### Due Dates

For students joining in the August session	
Period	Due Date
I Installment	15 Aug'15
II Installment (1 November 31 December)	14 Nov'15
III Instalment (1 January 31 July)	16 Jan' 16

Note:

1. For Students who receive scholarships/fellowships, the first, second and third installments of the tuition and other fees will be deducted from their scholarship/fellowship payable in the months of August, November and January respectively.

### For SC/ST Regular and QIP Candidates

Fees payable from the 2nd year onwards:

Programme	Tuition Fees	Other Fees (in Rs.)
Ph D	Fully Waived	5,000
M Sc (Engg.)	Fully Waived	5,000
ME / M Tech/M Des	Fully Waived	5,000
Int. Ph D	Fully Waived	5,000
M.Mgt	Fully Waived	51,300

### Due Dates

For students joining in the August term: 15 August 2015

Note:

1. For students who receive scholarships/fellowships, the fees will be deducted from the scholarship/fellowship payment in the month of August.
2. Students who do not receive scholarships/fellowships have to pay the fees on or before the dates prescribed above.

### Sponsored Candidates from DRDO/DEFENCE/BARC/NAL/ISRO

(Except for candidates under the External Registration Programme)

Fees payable from 2nd year onwards:

Programme	Tuition Fees (per annum)	Other Fees (per annum)	Total (per annum)
Ph D	20,000	5,000	25,000
M Sc (Engg.)	14,000	5,000	19,000
M Tech/M Des	14,000	5,000	19,000

Due Date: 15 August 2015

### Candidates under External Registration Programme

(For the session 2015-2016)

Fees payable from 2nd year onwards:

Candidates from the GOI Organizations			Candidates from Private Organizations			
Programme	Tuition Fees (per annum)	Other Fees (per annum)	Total (per annum)	Tuition Fees (per annum)	Other Fees (per annum)	Total (per annum)
Ph D	40,000	5,000	45,000	80,000	5,000	85,000

Due Date: 15 August 2015



## 9.2.1 Penalties

9.2.1.1 If a student fails to pay tuition and other fees by the due date, any one or more of the following penalties will be levied:

- (a) Overdue charges of Rs. 20/- per week or part thereof;
- (b) Stoppage of scholarship and/or loss of attendance for the period of non-payment;
- (c) Withdrawal of permission to take the examinations or to continue research; and
- (d) Cancellation of registration.

9.2.1.2 If the last date of payment is a holiday, the fees can be paid without penalty on the next working day.

## 9.3. Deposits (Refundable)

Statutory Deposit	:	` 3,000/-
Library Deposit	:	` 3,000/-

9.3.1 The deposits cover liabilities such as:

- (a) Damage of apparatus or other property
- (b) Wastage of materials
- (c) Fines
- (d) Hostel and dining hall dues
- (f) Loss of Books and
- (g) Other dues

9.3.2. A request for refund of Statutory and Library deposits is to be submitted at the time of leaving the Institute. Students should submit the request through the Chair of the department.

9.3.3. **Concessions** : Students belonging to SC and ST communities are exempted only from tuition fees.(Except for candidates under the External Registration Programme)

## 10. Scholarships and Fellowships

The details of scholarships and fellowships available to research and course students are given below.

### Institute Scholarships

#### 10.1 Research Students

Category of students	Scholarship per month (Amount in `.)
Ph D in Engineering Faculty	25,000/- (for the first two years) 28,000/- (for the next three years)
Ph D in Science Faculty	25,000/- (for the first two years) * 28,000/- (for the next three years)
M Sc (Engg.)	12,400/- (for 2 ½ years)
ME / M Tech/M Des	12,400/- (for 2 years)
Integrated Ph D programme.	**16,000/- (for the first two years) 25,000/- (for the next two years, i.e. up to end of fourth year) 28,000/- (for the next three years, i.e. up to end of seventh year)
Financial Assistantce :	
Ph D :	Ph D students during 6 <sup>th</sup> year
Int. Ph D	Integrated Ph D students during 8 <sup>th</sup> year ` 12,000/-
M Sc (Engg.)	M Sc (Engg.) students ` 5,000/- after 2.5 years and upto the completion of 3 years.

\*\* Integrated Ph D students for first 2 years '16,000/-p.m. Integrated Ph D students in science will be treated as 1<sup>st</sup> year regular Ph D students from their third year, for scholarship purposes.

#### 10.2 Scholarship Criteria for ME / M Tech / M Des/ M Sc (Engg.) students

- i) 8 to 10 hours (per week) of teaching and research work, as assigned by the Institute
- ii) An undertaking not to leave the course midway.

#### 10.3 Application for Award

10.3.1 The scholarship application form is to be submitted through the department Chair.

10.3.2 Applications from students with provisional admission will be processed only after admission has been regularized.

#### 10.4 Payment of scholarship

10.4.1 Payment will be made at the end of every month on submission of bills certified by the Advisor/Research Supervisor with regard to attendance and the satisfactory progress of work.

10.4.2 The scholarship will not be paid till all dues in respect of the preceding months are cleared. For the M E/M Tech/ M Des students, payment for the period of

vacation/recess will be made only when they rejoin the Institute after the vacation or recess. If a student undertakes project work outside the Institute during these periods, payment will be made on production of a certificate of attendance and satisfactory progress in the training along with a declaration that he/she has not received any other emoluments during any part of this period. In the event of the student having received any emolument during the project work, no scholarship will be paid.

- 10.4.3** Students are required to provide the account number and the name of the bank on the scholarship bill for crediting the scholarship amount.
- 10.4.4** Students must submit their scholarship bills to the department by 20<sup>th</sup> of the month in order to receive payment in time.
- 10.4.5** Sponsored candidates from other institutions can be considered for scholarship or financial assistance only if they have not received any emoluments from the sponsoring organization.

## **10.5 Renewal of Scholarship / Financial Assistance**

- 10.5.1 Research and Integrated Ph D Programmes:** Based on the specific recommendation of the Research Supervisor(s) and the Chair of the department, the scholarship may be renewed up to a maximum period of 5 years for Ph D, 2 years for M Sc (Engg.) and 6 years for Integrated Ph D registrants. Beyond this period, financial assistance may be sanctioned for needy students for a period of one year for Ph D & Int Ph.D. students, and for six months for M Sc (Engg.) students, based on recommendation by the Research Supervisor(s) and the Chair of the department.
- 10.5.2 ME/M Tech/ M Des Programmes:** Up to the completion of 2 years, the scholarship will continue, provided the student earns grades that satisfy the minimum requirements for continuation in the programme.

## **10.6 Scholarships/Fellowships from other Organizations**

Research Programme	Department	Rupees per month (₹)
NBHM	MA	25,000
Microsoft	CSA	20,000
Bristol-Myers Squibb (BMS)	BS/CS	22,000
T.J. Gautam/J. Ganguly	Division of Biological Sciences	3,500
Bristol Myers Squibb	CH	30,000
UGC Research Fellowship	PH	25,000
Inspire Fellowship (DST)	MD/CENSE/CE	25,000
CSIR Fellowship		25,000
ICMR		25,000
DBT		25,000
CSIR (SPM)		25,000
TCS	CSA/EE/ECE/SERC	25,000*
Google Fellowship	CSA/SERC	24,000
IBM	CSA	25,000
DiEty	NE/EC/ED/EE	31,250

# 11. Students' Assistance Programme

## 11.1 Students' Assistance Programme (SAP)

11.1.1 Rendering Assistance under SAP is mandatory for all regular Ph D and Int. Ph D students and optional for M Sc (Engg.) students. Students who are to be engaged in SAP should have their candidacy confirmed for the programme of study. However, the students who have not taken their comprehensive examination also could be allowed to do mandatory SAP with the approval of the Deans on the recommendations of the Instructor and the Chairman or DCC of the Department. To declare that the student has rendered the mandatory assistance under SAP, the duration of assistance should be between 60-120 hours in a particular term subject to the condition that it should not be more than 50 hours per month. The declaration that the student has rendered the mandatory assistance under SAP is compulsory to hold the colloquium of the student. For the mandatory one term assistance under SAP, no financial compensation is admissible. The students who are to be engaged for second and subsequent terms will have lower preference compared to the mandatory term students. The rate of payment for assistance rendered after the mandatory service will be at 100/- per hour. The work load on students engaged in teaching assistance should be limited to 50 hours per calendar month and 120 hours per term. The mandatory assistance under SAP is applicable to all students who joined for Ph D and Int. Ph D programme through the 2011 admission and onwards.

## 11.2 Students' Aid Fund

- 11.2.1. Each student shall contribute at least ` 50 per annum. Donations are also received from other sources.
- 11.2.2. The Fund is administered by a Committee constituted by the Director. This Committee prescribes operational rules for sanction of assistance from the Fund from time to time.
- 11.2.3. Assistance in the form of loans from the fund is available to poor students to:
- a) meet tuition fees;
  - b) purchase books, instruments and stationery necessary for the course or research programme;
  - c) meet other expenses connected with their work and for their maintenance at the Institute as may be approved by the Committee; and
  - d) meet hostel, dining hall, medical expenses, etc.
- 11.2.4. No payment shall be made by way of scholarships or prizes to students.
- 11.2.5. This assistance in the form of loans will be as reimbursement of expenditure incurred. The amount will be recovered in equal installments. The number of installments will be decided at the time of sanctioning the loan.

11.2.6 Requests for assistance should be made to the Academic Section in the prescribed form.

### 11.3 Financial Assistance for Medical Care

11.3.1 Students can get limited assistance to meet the cost of expenditure incurred in case of hospitalization, from the Students' Medical Care Fund, formed out of contributions made by the students and a matching grant made by the Institute.

## 12. Short-Time Registrants

### 12.1 Purpose

Scientists/engineers from industries and R & D organizations and faculty from universities with sponsorship from their organizations can do collaborative research work with Institute Faculty Members for short periods not exceeding four months at a time.

### 12.2 Eligibility

Candidates should have at least a Second Class Master's degree in Science or a Bachelor's degree in Engineering in the appropriate discipline.

### 12.3 Application Process

Prospective candidates should apply with all relevant details through the proposed Research Supervisor at the Institute and the Chair of the department.

### 12.4 Fees per term

Fee for persons from industry : ₹ 10,000/-

Fee for persons from University : Rs. 5,000/-

### 12.5 Facilities

They will be provided hostel accommodation (subject to availability) and will be admitted as members of the Gymkhana.

## 13. Admissions of Foreign Nationals

### 13.1 Full-time research

Application should be made online to the Chairman of International Relations Cell (IRC) by 31<sup>st</sup> of January every year. Short listed candidates are interviewed over the phone or by video conferencing. Selected candidates are offered fellowships and hostel accommodation on campus. The fellowship amount is equal to that of regular Indian students. The fellowship is renewable for up to 2 years for M Sc (Engg.) and 5 years for Ph D, subject to satisfactory performance.

### 13.2 Short time research work

**13.2.1** Foreign nationals with appropriate qualifications may be admitted to register for specific courses and to do project work in an identified department. Prospective candidates should send their applications to the Chairperson, International Relations Cell.

**13.2.2** Normally the registration is for one or two terms.

**13.2.3** Fees to be paid are as given below:

Fee per term	: Rs. 12,000/-
Auditing of Course fee	: Rs. 10,000/- (per course)

## 14. J R D Tata Memorial Library

The Library was established in 1911, and renamed 'J R D Tata Memorial Library' in May 1994. It is one of the best scientific and technical libraries in India. The library aims to develop a comprehensive collection of documents that are useful to the faculty, students and research scholars in their educational and research activities.

The library has a total collection of about 5 lakh documents, which includes books and monographs, bound volumes and periodicals, theses, standards, technical reports etc. It subscribes to over 760 current periodicals predominantly e-journals and few databases such as Web of Science and Mathscinet. In addition to Library subscription, INDEST-AICTE Consortium provides access to over 6000 e-journals. The Library continued to maintain its pre-eminence in providing access to a large number of e-resources. Some of major e-resources include the complete journal publication of the following Societies:

1. American Chemical Society ALL journals and its Archive
2. Royal Society of Chemistry ALL Journals and its Archive
3. American Society for Microbiology ALL Journals
4. Society for Industrial and Applied Mathematics (SIAM) complete journal Collection and Archive
5. American Institute of Physics Journals and Archive
6. American Physical Society Journals including Physical review Online (PROLA) Collection
7. Institute of Physics Publishing Complete collection including its Archive
8. Oxford University Press complete Mathematics, Physical and Life Science Collections
9. JSTOR Archive

Some of the Back-file collections to which access is provided on a perpetual access basis include:

1. Elsevier Backfiles in eleven subjects categories such as Biochemistry, Organic Chemistry, Inorganic Chemistry, Physical and Analytical Chemistry, Chemical Engineering, Materials Science, Mathematics, Physics General, Pharmacology, Neuroscience, Engineering Technology
2. Wiley InterScience Backfiles in eight subject categories which include Biochemistry, Polymer Science, Analytical Science, Cell and Developmental Biology, Chemistry, Genetics & Evolution, Materials Science, Physics and Astronomy Major databases subscribed: SciFinder Scholar; Web of Science; MathScinet

Library is currently using LIBSYS-7, a Library Management Software for its functions such as Acquisition, Cataloguing, Serials Control, and Circulation. Online access to Library holdings is through WEB-OPAC. Users have the facility to browse and search the Library database, view the status of a document or their own transactions and even make on-line reservations for a document issued out.

**Working hours:**

Monday–Saturday	0800 to 2300 hrs (Extended up 2:00AM)
Sunday	0900 to 1700 hrs
General holidays	1000 to 1600 hrs

Circulation rules and procedures:

**What may be issued:**

- a) Books
- b) Series Publications
- c) Reference Books (except Handbooks, Dictionaries, Encyclopedias, etc.)

**What may not be issued:**

- a) Annual Reports
- (b) Handbooks
- c) Dictionaries
- (d) Encyclopedias

**Loan Period : 14 days**

- a) Books (General)
- b) Periodicals (bound/series/references) 48 hours

## 15. Health Centre

Medical services for students are provided at the Health Centre. It has out-patient and in-patient facilities served by Medical Officers and nursing staff. Specialists in the areas of eye, dental and psychiatric visit the Health Centre regularly. There is a doctor on duty to look after emergency cases at night.

Diagnostic facilities like a clinical laboratory, an X-ray facility, ECG and ultrasonography are available. Cases requiring other specialist services are referred to appropriate centres/ hospitals.

All regular students are covered by the "Students Health Care Scheme" which permits reimbursement of medical expenses incurred as per norms. Students must undergo a medical examination at the time of joining only and medically fit candidates are admitted to the Institute.

## 16. Hostels and Dining Halls

Adequate accommodation is available for all the registered students of the Institute in the hostels. There are four dining halls: Vegetarian 'A' & D, Composite 'B' and 'C' (both vegetarian and non-vegetarian).

Charges towards Hostel facilities per month are given below:

### B. Refundable deposits

Deposits	Amount in `
Hostel	10,000
Hostel (for Married apartment)	12,000

### D. Hostel Charges

#### (i) Single Room charges per student per month

Students admitted to	Amount in `	
	General	SC/STs
B S (Research)	267	135
Integrated Ph D	650	325
ME/M Tech/M Des/ M Mgt/ M Sc (Engg)	400	200
Ph D	650	325
Others (RE/SP/ERP/QIP/RA/PA)	2000	2000
Others (STW)	1200	1200
Others	1800	1800



(ii) Double Room charges per student per month

Amount in `

Students admitted to	General	SC/STs
B S (Research)	133.5	67.5
Integrated Ph D	325	160
ME/M Tech/M Des/ M Mgt/ M Sc (Engg)	200	100
Ph D	325	160
Others	900	900

(iii) Married Apartment charges per month

Amount in `

Type of Apartment	General	SC/STs
Bhaskara	1,800	1,800
Kapila	1,800	1,800
Kaveri	2,250	2,250
Ramanujam	2,250	2,250
Aryabhatta		
(1) Double Room	2,250	2,250
(2) Single Room	1,350	1,350

(iv) Other charges

For single & double room

For married apartment

Particulars	Amount in `	Amount in `
Establishment charges	200.00	200.00
Amenities charges	200.00	200.00
Electricity & water charges	200.00	200.00

## 17. Students' Council

### Office Bearers 2015-16

Chairman	Amiya Banerjee (scchairman@tejas.serc.iisc.ernet.in)
General Secretary	Wasimakram Binnal (scgensec@tejas.serc.iisc.ernet.in)
Secretary Academic Affairs	Sushant Kumar (scacadsec@tejas.serc.iisc.ernet.in)
Secretary Women's Affairs	Pratibha Yadav (scwomensec@tejas.serc.iisc.ernet.in)
Secretary Amenities & Hostels	Pushpander Kumar Singh (scamensec@tejas.serc.iisc.ernet.in)

Students' Council (SC) is the representative body of the entire student community of the Indian Institute of Science. It is an interface between the students and the administration, and we work together to identify and address concerns that affect the students directly and indirectly. It represents the interests of the students and participates in discussions and decisions that affect the student community.

SC aims at the all round development of students and organize several extracurricular events through the year in association with the Gymkhana and the various activity clubs on campus. It coordinates the student volunteer effort for the Institute events that are organized periodically. It also provides an opportunity to be a part of activities, motivated by our sense of social responsibility and aimed at giving back to society.

The office bearers of SC are elected for a term of one year. Nominated members constitute the Steering and Executive Committee of SC. Two representatives from each of the departments are members of the Council. Additionally, the following committees are also constituted by SC:

**Academic** – All issues relating to courses, academic resources

**Amenities** – Looking after on-campus amenities and monitoring quality of the existing ones

**Communication** – Media interface and dissemination of information to students

**Hostel** – Looking after the students' hostels

**Student Support Network** – Coordinate with Counseling centre to provide counselling platform for students

**Placements** – Looking after campus placements and other career opportunities

**Health** – Coordination between the health center and students

**Women's welfare** – Work with Women Cell for the welfare of the women students.

**Cultural** – Organizing and promoting intra and inter-institute cultural events

**Environment** – Reducing the institute's environmental footprint, expanding the green cover.

There are also other committees like Social, UG Welfare, Foreign Student Welfare, and the Nation First Initiative

**URL:** <http://www.iisc.ernet.in/scouncil/>

**Email:** [scouncil@tejas.serc.iisc.ernet.in](mailto:scouncil@tejas.serc.iisc.ernet.in)

## 18. Students' body for Innovation and Entrepreneurship (EntIISc):

EntIISc is the abbreviation for 'Entrepreneurship and Innovation at IISc'. It is a student run forum to encourage, promote and support entrepreneurship and innovation activities at IISc. It aims to become a welcoming forum to promote and sustain entrepreneurial spirit and facilitate ideas and networking by means of events, workshops and training. The beneficiaries include students, faculty, research staff and associates.

**Vision:** The vision of this club is to leverage the unique ecosystem of IISc to create an international hub for Entrepreneurship and Innovation.

**Mission :** The mission of EntIISc is to be a welcoming forum to promote and sustain entrepreneurial spirit and facilitate ideas and networking by means of events, workshops and training

**Stakeholders :**

- IISc students (primary)
  - IISc community (Faculty, supporting staff and others)
  - External Entities IISc Alumni, Industry, Partners (VCs, Industry bodies, Government, other academic institutes and interested individuals)

**Objectives:** Be a world class showcase for entrepreneurship and innovation by executing professionally through:

- o Innovative and comprehensive IT driven operations
- o Creative, engaging and useful events that benefit the stakeholders
- o Metrics driven achievements, demonstrating transparency and integrity in actions and thoughts via constant communication to all stakeholders on a regular basis

**Events at EntIISc :** Since its formal inception, the office bearers of EntIISc have established this forum as the go-to place for all IISc students and entities external to IISc on matters related to student entrepreneurship and innovation. EntIISc has been able to engage about 500 students from the campus through more than 10 events conducted during the first six months of its operations. Students & Scholars of IISc, Professionals, Entrepreneurs, and Innovators got benefitted from these cognitive sessions of events, such as:

Sl.No.	Date	Event	Facilitator
1	18.01.14	Lean Start-up Workshop	Lean Mantra team
2	08.02.14	Facebook's Little Eye Labs	Little Eye Lab team
3	21.02.14	LEM Workshop	Prof. Sunil Handa, IIM-A
4	04.04.14	Schemes of Development	K.L. Rao, Director, Commissioner (MSME) Ministry of MSME
5	10.04.14	Bio Design Workshop	InnAccel
6	28.05.14	Accidental Entrepreneurship	Mr. Vasudhendra Shroff, Author & Entrepreneur
7	28.06.14	How to Market Idea	Mr. Sachin Bhide, Marketing Consultant
8	28.05.15	Women Entrepreneurship	Ms. Revathi Venkatraman, Chairperson, Women Entrepreneurs Committee Business Women's forum (FKCCI)

**Become a part of EntIISc :** Come & Join hands with us to explore the endless opportunities and the entrepreneur inside you. Learn. Create. Grow.

Visit us at: <http://entiisc.iisc.ernet.in/> , Like our Facebook page and stay posted: <https://www.facebook.com/EntIISc>

EntIISc, Write to us at: [contact@entiisc.ernet.in](mailto:contact@entiisc.ernet.in)

## 19. Recreational Facilities

### 19.1 Gymkhana

19.1.1 The Gymkhana is the centre of cultural activity at the Institute. It has a cricket ground, tennis, volleyball, basket ball courts and a cinder track. An indoor badminton court, table tennis, billiards, karate, shaolin-chu-kung-fu, taekwondo, chess and carrom are a few among the many facilities in the gymkhana. Athletic and recreational facilities at the gymkhana come as a break to regular work schedules at the Institute. It also provides a conducive atmosphere for interaction between students and staff.

The gymkhana also has a good gymnasium with facilities like Home Gym, a Hercules multi trainer and wall bar equipment.

Attached to the gymkhana is a small well-kept swimming pool where coaching classes are also conducted during the summer. The gymkhana subscribes to about 14 magazines in English at its Ranade Library, apart from making available about 10,000 books to readers. The music room in the gymkhana houses a stereo system and record player, with a good collection of records. There is a separate TV lounge. An indoor Students' Auditorium where cultural activities can be organized is available as a facility. There is also an open-air auditorium.

The Film Club regularly screens popular and classic films in its main hall for the benefit of the members.

The gymkhana organizes inter-departmental, inter-collegiate and inter-university tournaments in sports, games and cultural events. 'VIBRATIONS', a week long annual cultural festival, which attracts students from institutions all over the country and helps to bring out their inherent cultural talent, is celebrated at the gymkhana.

A dark room facility for the photographic club situated at the gymkhana caters to the needs of camera-loving members.

A snack parlour, which serves coffee, snacks and soft drinks to the members, is also situated in the gymkhana premises.

### 19.2 General Facilities

19.2.1 Other general facilities at the Institute include banks, Xerox centres (photocopying facility), travel agencies, bookstores, and a café and tea kiosk.