Contents

I. GRADUATE STUDIES PROGRAMMES 1

II. GENERAL GUIDELINES 3

III. IIA - PU Ph.D PROGRAMME 9

IV. IIA-CU INTEGRATED M.TECH - PH.D (TECH.) PROGRAMME 15

V. SUMMER PROGRAMMES 28

VI. VISITING STUDENTS PROGRAMME 29
I. Graduate Studies Programmes

Presently IIA offers research and training opportunities under the following two categories:

1. Ph.D programme jointly with the Pondicherry University (PU), Puducherry.

2. Integrated M.Tech-Ph.D (Tech.) programme in Astronomical Instrumentation jointly with Calcutta University (CU), Kolkata.

- The academic progress of the research students at the Institute and their welfare matters/facilities are monitored by the Board of Graduate Studies (BGS) appointed by the Director. The Board consists of a Chairperson, a Convener and a few other members; all appointed from the staff of the Institute. All research students are governed by the rules and regulations of the Institute as stipulated from time to time. They would follow the guidelines given in this handbook, which may be revised/updated from time to time and will be available on the Institute website.

- The normal procedure for admission to the research programme at IIA is via the screening test conducted by IIA (IIAST) at several centers across the country every year during December. Advertisement for the same will be placed in the Institute website and several national newspapers during September. Notification will also be sent to different educational/research institutions. Candidates with consistently good academic performance (as defined in the eligibility criteria for applying to the programme) starting from their 10th standard are short listed to appear for the test.

- Based on the performance in the screening test, candidates for the Ph.D programme are called for personal interview at IIA, Bangalore during January every year. Students selected through IIAST are required to qualify within one and a half year from the date of admission to the Ph.D programme at least one of the examinations conducted by various Central Government Departments/Agencies such as UGC-CSIR NET/Graduate Aptitude Test in Engineering (GATE)/Joint Entrance Screening Test (JEST), etc. that are considered as National Eligibility Test (NET), failing which the student will have to leave the programme.

- One more personal interview for all the aforementioned three academic programme will be held in June at IIA, Bangalore for candidates who qualify through either of the following screening tests: (1) Graduate Aptitude Test in
Engineering (GATE) scoring high percentile (as defined in the eligibility criteria for applying to the programme); (ii) UGC-CSIR/NET exam for Junior Research Fellowship (JRF); (iii) Joint Entrance Screening Test (JEST) scoring high percentile (as defined in the eligibility criteria for applying to the programme). IIAST qualified candidates who could not attend the interview to the Ph.D programme held in January are also called for along with the other candidates. A separate advertisement is placed in February every year in this regard.

• The interview committee will be constituted by the Director, IIA. In addition, to IIA staff members, representatives of PU/CU will be nominated as members of the committee for the respective academic programmes mentioned above.

• Students who are in the final year of the minimum qualifying degree at the time of applying for the respective research programme, and have successfully cleared the screening test and the personal interview need to produce their final statement of marks for verification before formal admission to the programme. In case, the marks are found to be less than the minimum qualifying marks (as defined in the eligibility criteria for applying to the programme), the selection of the student will be cancelled.

• The upper age limit to apply for academic programmes in IIA is 25 years for the Ph.D programme.

• Students selected for the Joint Astronomy Programme (JAP) organized by the Indian Institute of Science (IISc), Bangalore are also eligible to join IIA for their research work. They should submit a formal application to the Director, through the Chair, BGS-IIA and Chair-JAP. He/She will be governed by the rules applicable to the IIA students. The duration of Ph.D tenure for the JAP students will be counted from the time they joined IISc. Other rules will be similar to that of the IIA-PU Ph.D students.

• Emoluments of the students will be revised in accordance with the norms of the DST.
II. General Guidelines

A1. Accommodation

1. Students are provided shared hostel accommodation if they formally apply for the same to the Director, through the Chair, BGS. Students residing in hostel are bound to follow the hostel rules and regulations. The same are made available to the students at the time of joining the hostel.

2. If the student opts to stay in his/her own accommodation, he/she will be eligible for admissible HRA. A formal letter in this connection should be submitted to the Chair, BGS for recommendation.

3. Applicable license fee is deducted from the studentship/fellowship for the students provided with IIA accommodation.

4. Students may avail the Institute canteen facilities at subsidized rates for breakfast, lunch, and dinner.

5. A Ph.D student working at IIA under the JAP is not entitled to accommodation at both IISc and IIA simultaneously.

6. JAP students who opt for research at IIA shall be extended the same facilities as the IIA research students.

7. Family members of the students (married or otherwise) are not given accommodation.

A2. Medical benefits

Students of IIA will be covered by the Contributory Medical Scheme (CMS) of IIA as per admissible rules. Appropriate amount will be deducted from their studentship/fellowship amount. Dependent spouse/children of the student will also be covered under this scheme.

A3. Leave

1. Students are eligible for leave with full studentship/fellowship amount plus permissible HRA, not exceeding 30 days in a calendar year. Students must take
prior approval before going on leave by filling-in the on-line leave application form.

2. Unused leave in a calendar year cannot be carried over to the next year. Students attending the M.Tech courses and Ph.D. course-work are ordinarily not expected to go on long leave during the Semester.

3. For women Ph.D students, full fellowship plus permissible HRA may be paid during the period of absence up to 180 days on grounds of maternity as per the norms of the DST. The student should submit a medical certificate in support of actual confinement. The period of maternity leave will not be treated as a part of the student’s tenure, and is applicable only once during the tenure of the student. To avail the above, students should submit a formal application to the Director, through the Chair, BGS before going on leave. A medical certificate should be attached along with the request.

4. In case of other medical and other emergencies, a student can request leave for a maximum period of three months with full studentship/fellowship amount plus permissible HRA by submitting a formal application to the Director through the Chair, BGS. The student should also submit a medical certificate along with the request.

A4. Obligations of students

1. Students are expected to be present at the Institute office during its working days/hours, unless they are on leave, tour or visit to Institute field stations with prior approval.

2. Students are subject to the disciplinary regulations of the Institute.

3. In case a student decides to appear for any competitive examination, he/she should seek prior approval from the Director through the Chair, BGS.

4. A student should not take any assignment other than related to his/her approved program, paid or unpaid. Students taking up any paid assignment at any time during the course, without prior approval from the Director through the Chair, BGS are liable to disciplinary action including termination.

5. In case a student wishes to discontinue prior to completion of the tenure he/she must submit a resignation letter to the Director through Chair, BGS at least one month in advance.

A5. Selection of Ph.D supervisor

1. The proposed research supervisor should not be a probationary employee.

2. The academic credentials of the employee should meet the requirements stipulated by the PU/CU. The supervisor shall either be already recognized by the university, or shall meet the criteria laid down by the university for recognition.
3. A faculty member may be allowed to guide up to 5 PhD students with a combination of PhD and MTech-PhD students, for their PhD thesis. At any point of time, the number of PhD students should not exceed four. Not more than two students can join a faculty member from a stream, in a year.

4. An academic staff member who has only three years or less before superannuation should propose a co-guide for supervising the Ph.D thesis work of the student (under IIA-CU Integrated M.Tech-Ph.D programme) who desires to work with him/her. For IIA-PU Ph.D programme, an academic staff member with only three years or less before superannuation can function only as co-guide.

5. Till a student formally submits his/her thesis to the concerned university, he/she is ordinarily considered to be a full-time student of his/her thesis supervisor.

6. A student is expected to select his/her Ph.D topic/supervisor primarily from the list of proposals provided by the BGS.

7. A student who wishes to change the guide and/or the thesis topic may proceed with further formalities with the university where he/she is registered only after formal approval to do so from the Director, IIA. The same rule applies to the JAP students who work in IIA.

A6. Attending workshops/meetings/symposia

1. The students, who have completed their Ph.D registration formalities, are encouraged/allowed to attend workshops/meetings/symposia/collaborative work within the country as well as abroad. The foreign tour applications for the students should follow the FTSC guidelines. Applications for foreign travel must be submitted well in advance (ordinarily two months) to the Director through the Chair, BGS. Such visits are limited to a maximum of one year (aggregate of 365 days) during the Ph.D tenure of the student.

2. In addition to the above, visits to Universities (where the student is registered for his/her academic program) for submitting reports/synopsis/thesis, and attending courses are also supported. The student should submit a formal application well in advance to the Chair, BGS.

3. Students in the MTech, and pre-Ph.D course work are ordinarily not expected to go out-of-station to attend either scientific conferences workshops, or on deputation.

4. Students are expected to attend all scientific seminars, colloquia and lectures hosted in IIA irrespective of the area of their research work.

A7. Additional Requisites

Students are required to participate in the ongoing major research projects of the Institute as defined by the Director even if the projects do not form a part of their
Ph.D work. The fraction of the time thus spent may not ordinarily exceed 10% to 15% of their working hours.

A8. Loan facilities for buying Laptop computer

1. Students are eligible to avail loan facility from the Institute up to a maximum of Rs. 30,000/- to buy personal laptop computer. The criteria are: (i) the student should have completed two years and (ii) registered for his/her Ph.D.

2. Should be recommended and guaranteed by the supervisor. The repayment of the loan should be within the tenure of the research fellowship. The modalities of the repayment and other procedures will be followed as per the current administrative norms.

A9. Termination of Studentship/Fellowship

1. The studentship/fellowship shall normally stand terminated on completion of the approved tenure of the student by the BGS or from the date the student resigns and the same is accepted. The studentship/fellowship may also be terminated if the student fails to fulfill the minimum academic requirements stipulated by the BGS.

2. The student will be asked to leave the programme, if found to be involved in indiscipline and/or unlawful activities.

3. If a student leaves the Institute without prior permission, the studentship/fellowship amount due at any time shall not be paid, till all dues are cleared and certified by the relevant authorities.

4. Students must settle their claims before leaving the Institute.

5. M.Tech students who do not have a minimum of 75% attendance (independently in the theory and practical classes) in a Semester will be asked to leave the programme.

A10. Ph.D Registration of regular employees of the Institute

1. The employee should be a full time/regular employee of the Institute.

2. The employee should have put in minimum three years of service at the Institute.

3. The employee should possess the minimum academic qualifications, and other Ph.D registration requirements as required by the University/Institution where the registration for Ph.D is being proposed.

4. Procedures for Ph.D registration as part time candidate as mentioned in the University/Institution guidelines should also be fulfilled by the employee.
5. The employee should submit an application to the Director through the Chair, BGS that includes the research proposal forwarded by the proposed thesis supervisor.

6. An appropriate committee (comprising ordinarily of the Dean, Chair BGS, the proposed thesis supervisor, and an academic staff member of the IIA) constituted by the Director, will examine the employee’s basic understanding of the subjects relevant to the proposed field of research. The committee will also examine the proposal for its scientific value, practical feasibility, methodology to be followed, and the syllabus for the course work. Formal admission to the programme will be subject to the satisfactory completion of the course work (as stipulated by the university) by the candidate.

7. The PH.D related work by the employee should not affect her/his regular duties as an Institute employee. This should be certified by the Head of the Division/Group where the employee works.

8. The maximum tenure of the Ph.D work at IIA under this category will be as per the guidelines of the University/Institution where the employee registers for Ph.D.

A11. Ph.D Registration under the Faculty Improvement Programme (FIP)

1. The candidate should be a full time/regular employee, and must have put in minimum three years of service at the college where he/she is employed at the time of submitting the application.

2. The employee should possess the minimum academic qualifications, and other Ph.D registration requirements as required by the University where the registration for Ph.D is being proposed. Procedures for Ph.D registration under FIP as required by the University should also be fulfilled.

3. The candidate should submit an application to the Director through the Chair, BGS along with a no objection certificate from the College Principal, and forwarding letter by the proposed thesis supervisor in IIA.

4. An appropriate committee (comprising ordinarily of the Dean, Chair BGS, the proposed thesis supervisor, an academic staff member of the IIA, and a representative of the PU if Ph.D registration is with PU) constituted by the Director will examine the applicant’s basic understanding of the subjects relevant to the proposed field of research. The committee will also examine the proposal for its scientific value, practical feasibility, methodology to be followed, and the syllabus for the course work. Formal admission to the programme will be subject to the satisfactory completion of the course work (as stipulated by the university) by the candidate, and a subsequent interview by the committee.
5. Those who carry out Ph.D under the FIP scheme will be allowed to use the IIA computer centre, library on Institute working days. However, no library books will be issued in their names. They can also avail the Institute canteen facilities (within the campus) by paying subsidized rates on par with the employees and students of IIA.

6. The maximum tenure of the Ph.D work at IIA under the FIP category is ordinarily limited to three years from the date of formal admission to the programme.
III. IIA - PU Ph.D Programme

B1. Introduction

1. This is a full-time research programme wherein the students work towards their Ph.D degree. The qualifying degrees for this programme are M.Sc/Integrated M.Sc (Physics, Applied Physics, Engineering Physics, Applied Mathematics, Astronomy, Electronics, Photonics, Optics), M.E./M.Tech and Integrated M.E/M.Tech (Applied Physics, Engineering Physics, Computer Science, Electrical, Electronics, Instrumentation, Photonics, Optics, Opto-Electronics, Radio Physics & Electronics), M.Phil (Applied Physics, Instrumentation, Photonics, Optics, Physics).

2. Students selected under this programme through IIAST are required to clear NET within two years of joining the programme. (NET includes CSIR-UGC National Eligibility Test including LS, Graduate Aptitude Test in Engineering (GATE), Joint Admission Test (JAM), Joint Entrance Screening Test (JEST) as per DST SERB office Memorandum dated Jan 07, 2015).

3. Students are initially offered Junior Research Fellowship (JRF) for a period of two years. The fellowship is Rupees 25,000/- per month at present.

4. A book grant of Rs.5,000/- per year is provided upon recommendation by the Chair, BGS. Unused book grant can not be carried over to the next year.

5. The tuition fees for the student charged by the Pondicherry University (or IISc for the JAP students) where he/she is registered for Ph.D will be paid by the Institute.

6. At present, a sum of Rs. 5,000/- is deducted (in two equal installments of Rs. 2500/-) from the fellowship towards security deposit. The amount will be refunded to the student on completion of his/her tenure or in the case of resignation and upon submission of no dues certificate issued by the BGS Chair, Librarian, IIA and Stores Officer, IIA.

7. For those students who reside in the Institute provided accommodation, at present, an additional sum of Rs 5,000/- is deducted (in two equal installments of Rs. 2,500/-) towards hostel caution deposit. The same will be refunded to the student on completion of his/her tenure or in the case of resignation and upon submission of no dues certificate issued by the hostel authority.
### B2. Pre-Ph.D Course work

1. Students are required to undergo pre-Ph.D course work in the first year consisting of two Semesters: August-December (1st Semester); January-May (2nd Semester). The assessment may consist of class tests, seminars, home assignments and final examination as determined by the instructor.

2. Students should carry out a project after the 2nd Semester. The same should be selected from the list (related to ongoing developmental/instrumentation activities of the Institute) provided by the BGS. Analysis of data obtained with the Institute facilities is also included in the above category.

3. A faculty can guide only one student at a time for the course work project and no co-guide is allowed.

4. At the end of the 2nd Semester students should submit a project report. A committee is constituted to evaluate the performance of each student and grade him/her for the project work through a seminar and a viva voce (at the end of the seminar). For evaluation, it will be 50 marks for the project (to be awarded by the guide), 50 marks for the seminar and viva voce (to be awarded by the committee).

5. The student will be graded according to his/her performance in the course work. A 10-point grading system is being implemented from Academic year starting in August 2016 for students joining in August 2016, and after. The grade points assigned to the grades are indicated in the table given below:

### Table: Qualitative Assessment and Grade points

<table>
<thead>
<tr>
<th>Grade</th>
<th>Qualitative Assessment</th>
<th>Grade point</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Outstanding</td>
<td>8</td>
</tr>
<tr>
<td>A+</td>
<td>Excellent</td>
<td>7.5</td>
</tr>
<tr>
<td>A</td>
<td>Very good</td>
<td>7.0</td>
</tr>
<tr>
<td>B+</td>
<td>good</td>
<td>6.5</td>
</tr>
<tr>
<td>B</td>
<td>fair</td>
<td>6.0</td>
</tr>
<tr>
<td>C</td>
<td>satisfactory</td>
<td>5</td>
</tr>
<tr>
<td>D</td>
<td>Not satisfactory</td>
<td>4</td>
</tr>
<tr>
<td>F</td>
<td>Fail</td>
<td>0</td>
</tr>
</tbody>
</table>

6. At the end of each of the two Semesters the student should have a minimum of 5.5 Cumulative Grade Point Average (CGPA), failing which he/she should do...
extra assignments in the courses where he/she has got low grades. A suitable instructor will be chosen by the BGS to give the additional assignments. The student will be allowed a maximum of two months to complete the assignments after each semester.

7. The student should get C or higher grade in the project work. The project guide is expected to give a note on the level of the student’s basic knowledge in Astronomy and Physics, technical skills, attitude aspects etc.

8. If a student gets D grade in a course, he/she must repeat that course once and obtain a better grade, failing which the student may be asked to leave the programme.

9. If a student obtains D grade in two or more courses (in either of the two Semesters or both the Semesters taken together) the student will ordinarily be asked to leave the programme.

10. If a student gets E grade (i.e., fails) in any course, he/she may be asked to leave the programme immediately.

Grade Point Average (GPA):

If the student has taken n number of courses (Co), then a Grade Point Average is calculated as follows:

\[
GPA = \frac{\sum_{Co=1}^{n} (\text{No.of credits} \times \text{Grade point})}{\sum_{Co=1}^{n} (\text{No.of credits})}
\]

- The combined GPA for the two Semesters is the Cumulative GPA (CGPA). The CGPA is rounded off to the nearest first decimal place.

The following courses are offered during the Ph. D course-work.

B3. Ph.D registration

1. After successful completion of the pre-Ph.D course work and project, a student is eligible to start his/her research work. He/she should submit a formal letter to the Director through the Chair, BGS along with his/her thesis proposal (minimum of 1000 words) not later than two months of completing his/her course work and project work. The proposal should be forwarded by the proposed thesis supervisor.

2. The students will register with the PU for their Ph.D.

3. Each Ph.D student will have a Doctoral Committee (DC), constituted by the Dean, PU after taking inputs from Chair, BGS, to monitor his/her academic
Graduate Studies Programmes: A Handbook

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Semester</th>
<th>Topic of the course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>Radiative Processes in Astrophysics</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>Introduction to Fluid Mechanics and Plasma Physics</td>
</tr>
<tr>
<td>3</td>
<td>I</td>
<td>Numerical and Statistical Techniques</td>
</tr>
<tr>
<td>4</td>
<td>I</td>
<td>Fundamentals of Astronomy and Astrophysics</td>
</tr>
<tr>
<td>5</td>
<td>II</td>
<td>Galaxies and Interstellar Medium</td>
</tr>
<tr>
<td>6</td>
<td>II</td>
<td>Stellar and High Energy Astrophysics</td>
</tr>
<tr>
<td>7</td>
<td>II</td>
<td>Astronomical Techniques</td>
</tr>
<tr>
<td>8</td>
<td>II</td>
<td>General relativity and Cosmology</td>
</tr>
<tr>
<td>9</td>
<td>after 2nd sem</td>
<td>Project Work</td>
</tr>
</tbody>
</table>

activities. The thesis supervisor will be the Chair of the committee. A BGS member, an academic staff member of the Institute (outside of BGS), a representative of the PU nominated by the Dean, School of Physical, Chemical and Applied Sciences (SOPCAS) will be the other members of the committee. The thesis supervisor may communicate a list of three potential academic staff members to the BGS from which one will be identified. For the IISc-JAP Ph.D students, a representative from the IISc will be there in the DC in place of the representative from the PU mentioned above. The thesis supervisor may communicate the name of the IISc representative.

4. Although IISc does not stipulate formation of a Doctoral Committee. JAP students at IIA will have a doctoral committee. The supervisor should follow the above framework and form a DC, at the time of the comprehensive Viva.

5. Students are expected to complete their Ph.D registration formalities before appearing for the comprehensive examination which is conducted ordinarily within three months of the student completing two years from the time of joining the Institute.

B4. Comprehensive examination

1. On completion of two years as JRF, students are assessed for their research progress via a comprehensive examination (seminar followed by viva-voce). The syllabus (proposed research field and the relevant courses studied in the pre-Ph.D course work) for the same needs to be submitted to the Chair, BGS by the student (through his/her guide) at least one month before the examination.

2. The procedure for the comprehensive examination can be initiated by the thesis supervisor anytime from the date of acceptance of the thesis proposal submitted by the student.

3. The examination committee will be constituted by the Director. The committee will ordinarily comprise of four people similar to the DC. In the place of PU
representative in the DC, there will be an expert (in the broad area of the proposed research topic) from another Institute (ordinarily within Bangalore). The thesis supervisor may communicate a list of three potential external experts to the BGS from which one will be identified.

4. The format of the exam is as follows:

**Part 1:** An open house seminar in which the student will present the outline and the progress of the thesis project.

**Part 2:** A viva-voce examination where only the committee members are present.

5. The committee is expected to examine the basic knowledge of the student in the proposed research field, including the relevant courses studied in the pre-Ph.D course work.

6. It is expected that all the Ph.D students appear for their comprehensive examination within three months of completing two years of JRF tenure at the Institute. The thesis supervisor can organize the examination on a date mutually convenient to the other members of the committee within the above period. Students who are successful in their comprehensive examination will be promoted as Senior Research Fellow (SRF) with an increase in the fellowship to Rs.28,000/- per month (at present).

7. The enhancement of JRF to SRF stipend will be effective from the beginning of the third year if the exam is successfully completed within two years and three months of the student joining the Institute.

8. For those students who do not pass the comprehensive exam within the above period, the fellowship enhancement will be effective only from the date of the student clearing the comprehensive exam.

9. In case a student doesn’t pass the comprehensive examination in his/her first attempt, he/she can make a second attempt within three months of the first attempt. If a student does not clear the comprehensive examination even after two attempts, he/she will be asked to leave the programme.

10. The comprehensive examination should ordinarily be completed within two years and six months of a student joining the Institute failing which the student will be asked to leave the programme.

**B5. Progress report**

1. Progress reports forwarded by the thesis supervisor, and members of the Doctoral Committee should be submitted twice a year (June and December) by every research student, in the third year and above, to the Chair, BGS. The report should contain an account of the research carried out by the student during that period along with copies of publications, if any.
2. Every student must give a seminar once a year on the subject matter of his/her progress report. The schedule for the same will be intimated by the BGS. For each student (SRF) three DC meetings have to be conducted: 2 in PU and one in IIA. The thesis synopsis talk be held at IIA and the thesis viva voce at PU.

B6. Tenure and Ph.D Thesis Submission

1. A student is ordinarily expected to submit his/her Ph.D thesis to the University before the end of five years (inclusive of one year course work) from the date of joining the programme.

2. Rules stipulated by the PU will be followed for thesis submission.

3. A student is eligible for one year of post thesis submission fellowship (Rs. 30,000/- per month at present). The fellowship will, in general, be granted for only up to a maximum of six months at a time, not exceeding one year in total. The students should submit a letter to the Director through the Chair, BGS to avail this fellowship.

4. If a student fails to submit the thesis by the end of five years, his/her fellowship amount will be stopped. The student may continue the thesis work availing the Institute facilities, but the post thesis submission fellowship period will be reduced by the extra time taken (beyond five years) to submit the thesis. In any case, the overall tenure of the students in this category cannot exceed six years (course work period + Ph.D period + post thesis submission period). Students who do not submit their thesis even by the end of six years will ordinarily be asked to leave the Institute.

5. Application for tenure extension should be submitted to the Director, through the BGS a minimum of 30 days before the expiry of the previously approved tenure. The application should be accompanied by the recommendations of the Doctoral Committee.

6. Successful Ph.D students will be awarded the Ph.D degree by the PU.
C1. Introduction

1. This is an Integrated programme consisting of an M.Tech part and a Ph.D part, and is targeted towards promoting R&D activities in the emerging area of Astronomical Instrumentation. The qualifying degrees for this programme are M.Sc/Integrated M.Sc (Applied Physics, Engineering Physics, Astronomy, Electronics, Photonics, Optics, Physics), B.E./B.Tech (Applied Physics, Engineering Physics, Electrical, Electronics, Electronics and Communication, Instrumentation, Photonics, Optics, Opto-Electronics, Mechanical), three years B.Tech [Post B.Sc Hons.] (Optics and Opto-Electronics, Radio Physics and Electronics, Applied Physics, Computer Science, Electronics, Instrumentation).

2. The M.Tech degree programme is a two year/four Semester course. The 1st and 2nd Semester classes will be primarily held at the Department of Applied Optics and Photonics, Calcutta University. Some of the Astrophysics related subjects will be held at IIA (July-August) before the students leave to Calcutta for the 1st Semester. The 3rd and 4th Semesters comprise of internship at IIA laboratories and observatories, and projects at IIA field stations.

3. The students will be paid a fellowship amount of Rs. 16,000/- per month (at present) during their M.Tech programme (two years). During this period, they will also be provided a book grant of Rs.3,000/- per year upon recommendation from the Chair, BGS. Unused book grant can not be carried over to the next year.

4. During the MTech period, IIA will pay the M.Tech tuition fee to CU as per the university requirements.

5. At present a sum of Rs. 5,000/- will be deducted (in two equal installments of Rs. 2500/-) from the fellowship amount towards security deposit. The same will be refunded to the student on completion of his/her tenure or in the case of resignation and upon submission of no dues certificate issued by the BGS Chair, Librarian, and Stores Officer.

6. For those students who stay at IIA hostel an additional sum of Rs. 5,000/- will be deducted (in two equal installments of Rs. 2500/-) towards hostel caution
Graduate Studies Programmes: A Handbook

<table>
<thead>
<tr>
<th>Paper</th>
<th>Hours per Week</th>
<th>Full Credits Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory</td>
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<td>1</td>
</tr>
<tr>
<td>Practical</td>
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<td>2</td>
</tr>
<tr>
<td>Tutorial</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Seminar</td>
<td>[for 1st and 2nd semester only]</td>
<td>1</td>
</tr>
<tr>
<td>Internship</td>
<td>15 [for 3rd semester only]</td>
<td>10</td>
</tr>
<tr>
<td>Dissertation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preliminary and Final</td>
<td>Partly in 3rd Semester and during entire 4th Semester</td>
<td></td>
</tr>
<tr>
<td>General viva voce</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

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deposit. The same will be returned to the student on completion of his/her tenure or in the case of resignation and upon submission of no dues certificate issued by the hostel authority.

**C2. M.Tech Course work**

The M.Tech course work of hundred credits is spread over four Semesters of two years duration as per the following scheme:

- Eight theory papers of total twenty eight credits including four tutorial credits
- Four practical papers of total twenty four credits
- Two seminars of total four credits
- Internship at IIA of ten credits
- Dissertation work in two parts:
  1. Preliminary of ten credits and final of twenty credits
  2. General viva voce of four credits

The credit assigned to each theory course, practical, tutorial, seminar, internship and general viva voce and the corresponding teaching hours to be devoted per week are indicated in the following table. Internship and dissertation work shall be carried out at IIA.

Number of lecture hours per week for each theoretical and tutorial paper and number of hours per week for practical papers along with seminars and project work are as indicated in the M.Tech course structure and detailed syllabus mentioned below.

A student will get full credit for a paper provided he/she pursue regular full time course of studies in the Department of Applied Optics and Photonics, CU for the first two Semesters. The students must maintain at least 75% of attendance.
C3. M.Tech Examination and evaluation procedures

1. A student has to earn a total of hundred credits to complete the entire M.Tech course.

2. Examinations will be held at the end of each Semester on all papers included in the syllabus of that Semester. The examination will be referred to as M.Tech Semester - (1, 2, 3 and 4) examination, as the case may be.

3. The study leave after the completion of regular classes and before the commencement of examination will generally be of ten calendar days.

4. Examination of a theory course carrying three credits will be of three hour duration.

5. Paper setters and examiners for theoretical papers will be appointed by a board of examiners consisting of: (a) all faculty members of the Department of Applied Optics and Photonics (AOP), CU; (b) the honorary / guest lecturers, if any; (c) teachers associated with the course work from the IIA, who will be treated as internal examiners.

6. Grades to be awarded for theoretical papers will have a component of continuous assessments to be evaluated by the teacher(s) assigned for that class work. Methodology for continuous assessment and weights will be decided by consensus opinion at the Board of Examiners meeting.

7. Evaluation of tutorial papers will be done by the teacher assigned for the class. Procedure of evaluation will be at his/her discretion.

8. Evaluation of a practical paper will be based on the performance of a student along with a viva voce at the end of the Semester and on the report of the experiments conducted. Corresponding allocation of marks are as follows: 50

9. Session work will be evaluated by the teacher(s) concerned.

10. Evaluation of the report and the viva voce will be conducted by a board consisting of at least two faculty members including guest faculty, if any.

11. Every student should deliver two open session seminar talks, one each during the 1st and 2nd Semesters. His/her performance shall be assessed by a committee consisting of at least five examiners.

12. Each student has to undergo an internship at various laboratories /field stations of IIA to earn his/her credits to be awarded by a group of three examiners.

13. Each student should select (from the list provided by BGS) a topic related to research and development activities in the area of Astronomical Instrumentation for his/her dissertation work at the beginning of the 3rd Semester in IIA. He/she has to carry out the work independently ordinarily either under the supervision of one faculty member of the Department of AOP, CU or one from IIA or both.
14. At the end of 3rd Semester, each student should submit through the respective supervisors, the preliminary dissertation report. The report will be evaluated at the end of the Semester for his/her performance during the course of the work by his/her supervisor and through a viva voce conducted at the IIA by a committee.

15. At the end of 4th Semester, each student should submit a dissertation on the assigned topic and shall be required to defend his/her dissertation in an open session seminar. A report (three copies) on dissertation has to be submitted on or before a stipulated date.

16. 50% of the stipulated full credit will be set apart for his/her performance during the course of the work. This will be evaluated from his/her performance during the course of the work by his/her supervisor. Rest 50% of the credits marks will be evaluated in an open defense by a five member Board of Examiners (constituted by the Vice Chancellor, CU) consisting of teachers from the Department of Applied Optics and Photonics, CU and IIA.

17. At the end of 4th Semester, each student should appear at a General Viva Voce test to be conducted by a Board of Examiners.

18. The performance of a student in any theoretical or practical or tutorial papers, seminar, internship dissertation work and general viva voce will be awarded in terms of grade and grade points earned by the student.

19. The equivalence between grade, grade point and percentage marks (out of stipulated full marks) is given below:

<table>
<thead>
<tr>
<th>Percentage of marks</th>
<th>Grade</th>
<th>Grade points</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 90%</td>
<td>Ex</td>
<td>10</td>
</tr>
<tr>
<td>≥ 80% but &lt; 90%</td>
<td>A</td>
<td>09</td>
</tr>
<tr>
<td>≥ 70% but &lt; 80%</td>
<td>B</td>
<td>08</td>
</tr>
<tr>
<td>≥ 60% but &lt; 70%</td>
<td>C</td>
<td>07</td>
</tr>
<tr>
<td>≥ 50% but &lt; 60%</td>
<td>D</td>
<td>06</td>
</tr>
<tr>
<td>&lt; 50%</td>
<td>F</td>
<td>00</td>
</tr>
</tbody>
</table>

Grade – F implies failure to earn minimum required credits. Grades higher than F indicate successful completion of the subject and the student will earn the corresponding grade point.
The overall performance of a student who earns all the credits in a particular \( (j^{th}, 1 \leq j \leq 4) \) course. Semester examination in one chance, will be assessed by the Semester grade point average (SGPA), \( S(j) \), to be computed as follows:

\[
S(j) = \frac{\sum P_i^{(j)} C_i^{(j)}}{\sum C_i^{(j)}}
\]

where \( P_i \) stands for the grade point earned by the student and \( C_i \) stands for the corresponding credit in a specific \( i^{th} \) course, whereas

\[
\sum C_i^{(j)} = C^j
\]

is the total credit of the Semester.

On completion of the entire course when hundred credits have been earned by any student the consolidated grade point average (CGPA) will be computed from the following formula:

\[
CGPA = \frac{\sum_{j=1}^{6} S(j) C(j) 6}{\sum_{j=1}^{6} C(j) 6} = \frac{\sum_{j=1}^{6} S(j) C(j)}{100}
\]

1. 2nd as well as 4th Semester class will begin after a week of recess on completion of the previous Semester Examination.

2. A student will be automatically allowed to continue in the following Semesters (from 2nd to 4th) provided he/she earns at least twenty credits in the previous Semester.

3. If a student earns less than twenty credits in any Semester, he/she will be considered as failed in that Semester examination. A failed student will not be allowed to continue in the next Semester and will have to revert to the same Semester in the next academic session.

4. If a student fails to earn credits for any particular topic, he/she will have to earn those credits in a supplementary examination to be conducted during the currency of subsequent Semester. Failing which, he/she will have to sit for regular examination of the next semester for the back papers only. Total chances to clear the credits will be limited to three. Attendance in the classes corresponding to the back credits is not mandatory.

5. The total back credit carried by any student at any stage should not exceed eight credits. If at the end of any Semester the accumulated back credit of any student exceeds eight, he/she will not be allowed to pursue the course further. After earning the back credit within the stipulated chances he/she will be allowed to continue the course.
6. In order to complete the M.Tech course, a student will have to utilize all allowed chances within three consecutive academic sessions or six consecutive Semesters from the date of admission to the M.Tech course.

7. A student who fails to earn all the credits of the M.Tech course within the allowed chances will be treated as failed and will not be allowed to continue the course.

8. After evaluation of all examinations in each Semester (1-4), the syndicate shall publish separate lists of students in the following manner.

9. The first list will show the results of the students who have earned all Semester credits in the first chance and are continuing in the next Semester. The list will show the SGPA earned by the students.

10. The second list will show the results of the students who have earned at least twenty credits in the first chance but not stipulated credits and are continuing in the next Semester. SGPA of such students will not be computed and hence, will not be displayed in the list.

11. The third list showing the results of the students who appeared in the examination only to earn back credit.

12. Grade sheets showing the grade points and the credits earned will be issued to each student at the end of each Semester.

13. After evaluation of all the examination of 4th Semester, the syndicate shall publish separate lists of students in the following manner.

14. The first list will show the results of the students who have earned all 4th Semester credits in the first chance along with the corresponding SGPA earned.

15. The second list will show the results of the students who failed to earn all credits of the 4th Semester.

16. The third list will show the results of the students who appeared in the 4th Semester only to earn back credits.

17. The final list of the M.Tech. Examination will show the results of the students, in order of merit, who earned all the credits of the entire M.Tech course in a single and first chance on the basis of the combined results of all four Semester examinations along with the corresponding CGPA earned.

18. The final second list will show the results of the students who earned all the credits of the entire M.Tech course that includes back credits in at least one topic of the entire M.Tech course along with the corresponding CGPA earned.

19. A consolidated grade sheet showing the combined results of all four Semester examinations of M.Tech course will be issued to a student after earning all credits of the entire course. The students who have completed the course in more than four Semesters will have to apply for the consolidated grade sheet by submitting copies of the grade sheets of all the Semesters.

20. Students who fail to complete their M.Tech degree within the stipulated two years period will be asked to leave the programme.
<table>
<thead>
<tr>
<th>Semester-1</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI T11</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Mathematical Techniques</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Mai T12</td>
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<td>4</td>
</tr>
<tr>
<td>Foundations of applied optics</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Mai T13</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Image Science</td>
<td>3</td>
<td>0</td>
<td>0</td>
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<td>Optical Testing and Metrology</td>
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<td>Sensors (including lab-view, detectors, CCD characterization)</td>
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<td>6</td>
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<td>Mai T21</td>
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<td>4</td>
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<tr>
<td>Optical and Photonic Systems, Components and Devices</td>
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<td>1</td>
<td>0</td>
<td>4</td>
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<tr>
<td>Mai T22</td>
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<td></td>
<td></td>
<td>3</td>
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<tr>
<td>Lasers. Optical Fiber and thin film</td>
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<td>0</td>
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<tr>
<td>Mai T23</td>
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<td></td>
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<td>3</td>
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<tr>
<td>Optical Instrumentation</td>
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<td>Mai P21</td>
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<td>Lens Design and Thin Film</td>
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<td>Mai P22</td>
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<tr>
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<td>1. Stellar Interferometry</td>
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<td></td>
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</tr>
<tr>
<td>2. Radio Interferometry</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. Radio Telescopes</td>
<td></td>
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<td></td>
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<tr>
<td>4. Photon-detection techniques in Radio, X-ray and Gamma-ray astronomy</td>
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<td>5</td>
<td>0</td>
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</tr>
<tr>
<td>5. Solar-Adaptive Optics, Polarimeter, cooling of primary mirror</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Embedded Systems, FPGAs, Digital I/O cards, PCB designing</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mai INT</td>
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<td>Internship at IIA</td>
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</tr>
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<td>Mai DP</td>
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<td>Dissertation (Final)</td>
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<td><strong>Total</strong></td>
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<td>24</td>
<td>24</td>
</tr>
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</table>

| GRAND TOTAL| 24| 4 | 72| 100    |
C4. Options for discontinuation and termination at the end of M.Tech course

1. A student may opt out of the Integrated M.Tech-Ph.D (Tech.) programme after his/her M.Tech examination and if eligible, he/she will be awarded the Degree of Master of Technology in Astronomical Instrumentation in collaboration with the Indian Institute of Astrophysics under the seal of the CU mentioning the corresponding CGPA earned.

2. A student who has fulfilled the requirements for an M.Tech degree will be allowed to continue the Integrated course if he/she: (a) attains a minimum cutoff CGPA (to be decided on year to year basis); and (b) is recommended by a selection committee.

C5. Continuation of Integrated M.Tech-Ph.D (Tech.) programme and award of degree

1. The designation of the M.Tech-Ph.D (Tech.) student is changed to JRF after successful completion of the M.Tech degree and joining the Ph.D programme. The fellowship amount is enhanced to Rs. 25,000/- per month (at present). In addition, the book grant is increased to Rs. 5,000/- per annum. Both these emoluments will be implemented upon recommendation from the Chair, BGS. Unused book grant can not be carried over to the next year. The Institute also pays the Ph.D tuition fees of the student charged by the CU.

C6. Pre-PhD course work

1. A student who has finished his/her M.Tech course work and is interested to continue for the Ph.D work should attend the classes on Research Methodology.

C7. Ph.D registration

1. Students selected for the Ph.D programme have to clear the Pre-PhD enrolment viva and will have to obtain registration for the Ph.D degree within one year of the publication of the M.Tech result. The approval for granting registration will be guided by the prevailing regulations of the Ph.D degree programme of the CU.

2. The student may extend the M.Tech dissertation work to his/her Ph.D work, if interested.

3. Application for registration in prescribed form shall state the subject or interdisciplinary field in which the student desires to have the degree, chosen area of specialization, the title of the research, the name of the Supervisor as well as the University Department or recognized Research Institution where the Ph.D programme will be carried out. The application shall be supported by six copies
of the synopsis of the proposed research, which shall ordinarily not exceed 1000 words, and shall include a title, short introduction, a brief overview of literature pertaining to the work, Research objectives, Research methodologies and the plan of work, duly countersigned by the Supervisor/Joint Supervisor.

4. Supervisors should have record of research as evidenced by publications in refereed journals.

5. A student will be registered for Ph.D Programme in Astronomical Instrumentation. The Ph.D topic and work should be related to research and development activities in the area of Astronomical Instrumentation.

6. The Ph.D committee of the Department of Applied Optics and Photonics, CU shall consider, and recommend the provisional Ph.D registration of a student. The committee will have at least one representative from IIA (nominated by the Director, IIA).

7. Application for registration will be considered by the relevant Ph.D Committee at its meeting in the presence of the Supervisor/ or the Joint Supervisor, if any, who will share the responsibility equally with the Supervisor for guiding the research work. On the recommendation of the Ph.D. Committee concerned and with the due approval of the Vice Chancellor or his nominee, the student will be allowed to be registered for the Ph.D programme.

8. Supervision, submission and evaluation, Viva Voce and the award of the Integrated M.Tech-Ph.D (Tech.) degree shall be guided by respective clauses of the Ph.D regulations as per the prevailing CSR notification.

C8. Comprehensive examination

On completion of two years as JRF, students are assessed for their research progress via a comprehensive examination (seminar followed by viva-voce). The syllabus (proposed research field and the relevant courses studied in the M.Tech) for the same need to be submitted to the Chair, BGS by the student (through his/her guide) at least one month before the examination.

1. The procedural work for the comprehensive examination can be initiated by the thesis supervisor anytime from the date of acceptance of the thesis proposal submitted by the student.

2. The performance of the student will be evaluated based on a seminar and viva-voce. The examination committee will be constituted by the Director. The thesis supervisor will be the Chair of the committee. A BGS member, an academic staff member of the Institute (outside of BGS), representative of the CU will be the other members of the committee. The thesis supervisor may communicate a list of three potential academic staff members to the BGS from which one will be identified. The BGS may also constitute a common committee for the comprehensive viva of all students. In which case, viva of all the students appearing for the comprehensive examination will take place on the same day.
The guides will be invited to be present during the seminar.

3. The format of the exam is as follows:

**Part 1:** An open session seminar in which the student will present the outline and the progress of the thesis project.

**Part 2:** A viva-voice examination where only the committee members are present.

4. The committee is expected to examine the basic knowledge of the student in the proposed research field, including the relevant courses studied in the M.Tech course work.

5. It is expected that the students appear for their comprehensive examination within three months of completing two years of JRF tenure at the Institute. The thesis supervisor can organize the examination on a date mutually convenient to the other members of the committee within the above period. If there is a common committee, then the convenience of the members and guides will be sought for finalizing the date of examination.

6. The student shall be promoted to Senior Research Fellow (SRF) and enhancement of fellowship amount (to Rs. 28,000/- per month at present) will be effective from the beginning of the third year if the examination is successfully completed within two years and three months of the student joining the Ph.D.

7. For those students who do not pass the comprehensive exam within the above period, the fellowship amount enhancement will be effective only from the date of the student clearing the comprehensive exam.

8. In case a student does not pass the comprehensive examination in his/her first attempt, he/she can take a second attempt within three months of the first attempt. If a student does not pass the comprehensive examination even after two attempts, he/she will be asked to leave the programme.

9. The comprehensive examination should ordinarily be completed within two years and six months of a student completing the M.Tech course and joining the Ph.D work failing which the student will be asked to leave the programme.

**C9. Progress report**

1. Progress reports forwarded by the thesis supervisor should be submitted twice a year (one at the end of June and other at the end of December) by every research student, in the third year and above, to the Chair, BGS. The report should contain an account of the research carried out by the student during that period along with copies of publications, if any.
2. For each M.Tech-Ph.D student a Doctoral Committee (DC), is constituted by the Director by taking inputs from the guide, to monitor his/her academic activities.

3. Every student must give a seminar once a year on the subject matter of his/her progress report. The schedule for the same will be intimated by the BGS.

C10. Tenure and Ph.D Thesis Submission

1. A student is ordinarily expected to submit his/her Ph.D thesis to CU before the end of six years (inclusive of two years of M.Tech course) from the date of joining the programme.

2. Rules stipulated by CU will be followed for thesis submission.

3. A student is eligible for one year of post thesis submission fellowship. Post-thesis submission fellowship will, in general, be granted for only up to a maximum of six months at a time, not exceeding one year in total. The students should submit a letter to the Director through the Chair, BGS to avail this fellowship.

4. If a student fails to submit the thesis by the end of six years (inclusive of two years of M.Tech course), his/her fellowship amount will be stopped. The student may continue the thesis work availing the Institute facilities, but the post thesis submission fellowship period will be reduced by the extra time taken (beyond six years) to submit the thesis. In any case, the overall tenure of the students in this category cannot exceed seven years (M.Tech course period + Ph.D period + post thesis submission period). Students who do not submit their thesis even by the end of seven years will ordinarily be asked to leave the Institute.

5. Application for tenure extension should be submitted to the BGS a minimum of 30 days before the expiry of the previously approved tenure. The application should be accompanied by the recommendations of the Doctoral Committee.

6. Supervision, submission and evaluation, Viva Voce and the award of the Integrated M.Tech-Ph.D (Tech.) degree shall be guided by respective clauses of the Ph.D regulations as per CSR notification No CSR/34/06.

C11. M.Tech-Ph.D Programme: Time schedule

year 1:

July 1st week: Students joining for the program at IIA, Registration for M.Tech at Calcutta University.

July 2nd week to August 2nd week: One month course on “Astrophysical Concepts” at IIA.
August 3rd week: Leaving to Calcutta University.

August 3rd week to December end:

A. Courses at Calcutta University (1st Semester)
   1. Mathematical Techniques in Astronomy
   2. Foundations of Applied Optics
   3. Image Science

B. Experiments at Calcutta University
   1. Optical Testing and Metrology
   2. Sensors and Transducers

January 2nd week: Final Exams (1st semester)

February 1st week to April 2nd week:

A. Courses at Calcutta University (2nd Semester)
   1. Optical and Photonics systems, Components and Device
   2. Lasers, Optical Fiber and Thin Film
   3. Digital Image Processing and Numerical Analysis
   4. Optical Instrumentation

B. Experiments at Calcutta University
   1. Lens Design and Thin Film
   2. Analog and Digital Image processing, digital holography

July 2nd Week: Final Exams (2nd Semester)

year 2:

August 1st week to October end: Internship at IIA field stations (and report submission)

November 1st week to July end: M Tech Projects (9 month duration) starts

End of second year


year 3:
**August 2nd week:** Choosing Project and guide for PhD. Submission of the PhD project proposals to BGS

**September 2nd week:** M.Tech results announcement and commencement of PhD work

**October 1st week:** Pre-PhD Enrollment Viva at IIA

**January:** Submission of PhD applications to Calcutta University for registration.

**year 4:**

**August 1st week:** Comprehensive Viva to promote them from JRF to SRF.

**October:** Completion of course on Research Methodology Provided by Calcutta University.

**year 6:**

**March:** Pre-submission thesis Viva.

**August:** Submission of the thesis to Calcutta University.
V. Summer Programmes

1. Summer School

Presently, the school is conducted every year during the month of May at the Kodaikanal Observatory of the Institute. The duration of the school will be two weeks and the focus would be on the basics of Physics and Astrophysics.

1.1 Procedure to apply

The procedure to apply for Summer Programmes is via submission of online application put up in the Institute website around February every year. Advertisement for the same will be placed in the Institute website, and several national newspapers. Notification will also be sent to the different educational / research institutions.

Applicants with consistently good academic performance (as defined in the eligibility criteria for applying to the programme) starting from their 10th standard are short listed. Selection will be carried out based on their academic performance and the recommendations of their teachers. The travel allowance and local hospitality are provided to the attendees.

1.2. Eligibility

Students in the pre-final year of B.Sc (Physics), M.Sc/Integrated M.Sc (Applied Physics, Engineering Physics, Astronomy, Electronics, Photonics, Optics, Physics), B.E./B.Tech (Applied Physics, Engineering Physics, Computer Science, Electrical, Electronics, Electronics and Communication, Instrumentation, Mechanical, Photonics, Optics, Opto-Electronics), three years B.Tech [Post B.Sc Hons.] (Optics and Opto-Electronics, Radio Physics & Electronics, Applied Physics, Computer Science, Electronics, Instrumentation) are eligible to apply.

2. Summer Internship

The internship is offered during the months of May/June every year. The duration is about 1 – 2 months. Students selected for this programme will attend the aforementioned Summer School, and later carry out their project work either at IIA, Bangalore or its field stations under the guidance of IIA staff members.
VI. Visiting Students Programme

The Internship Programme is conducted by IIA with the aim of promoting interest in scientific research among students of other Institutions/Universities/Colleges. Candidates selected for this programme will work on specific projects under the supervision of our academic staff members at Bangalore or field stations. Candidates must have a consistently good academic record with more than 55% marks in Mathematics and Science from 10th standard onwards.

This programme runs throughout the year, except during May - July when IIA conducts the Summer School Programme. Online applications are opened during specific time periods.

Category of Students:

1. **Course projects:** Students who are in the final year of B.E./B.Tech /M.Sc/M.Phil/ M.Tech can undertake their final year project work towards partial fulfillment of their degree course in IIA. The duration of such projects is usually 6 to 9 months.

2. **Short-term projects:** Students who are in the pre-final/final year of B.E./B.Tech/ M.Sc/M.Tech or final year B.Sc. or within 6 months after the completion of their B.E./B.Tech/ B.Sc/M.Sc/M.Tech can undertake a short-term project at IIA. The duration of such projects is usually between 6 weeks to 6 months.

3. **PhD students from other institutions:** Students who are doing their PhD in other Institutions/Universities/Colleges can visit IIA for collaborative work with IIA faculty. The total duration of the collaborative visits must not exceed 3 months in an academic year.

4. **INSPIRE/KVPY fellows:** Students with INSPIRE/KVPY fellowship can undertake short-term projects with IIA faculty. The duration of such projects usually is 6 weeks to 3 months.

5. **Post-PhD:** Students who have submitted their PhD within the last 6 months can visit IIA for a period not exceeding 6 months.
Financial support:

1. Pro-rata stipend of Rs. 10,000 / 5,000 per month will be given to students selected to do their project at our Bangalore campus/field stations. However, candidates who are INSPIRE/KVPY fellows/PhD students from other institutes and/or getting external funding/fellowship will not be given stipend. Candidates who are residing/studying in Bangalore will not be given stipend if their project is at Bangalore.

2. No accommodation is provided to students at Bangalore campus. In field stations, free accommodation may be provided subject to availability.

3. Return travel fare by second-class sleeper/bus from the place of residence/institution to IIA/field stations will be provided. However, candidates who are INSPIRE/KVPY fellows/PhD students from other institutes and/or getting external funding/fellowship will not be given travel support.

4. Students are eligible for subsidized food, access to library and computing facilities during the period of internship.

Terms and Conditions:

1. The internship may be terminated at any time if the performance of the student is not found to be satisfactory.

2. The student must submit a report and give a seminar on the work done during the project.

3. Extension can be requested subject to satisfactory performance of the student. The total tenure, including the extension, should not exceed six months, except for the cases where the student is self-funded or the project is part of a course extending more than six months (The stipend will not be given beyond 6 months). Request for extension must be made at least three weeks prior to the completion of the current tenure.

4. Not more than 10 students can be supported financially under this programme at any given time.

5. Queries related to this programme may be addressed to vsp@iiap.res.in.