

Indian Institute of Technology Goa

**SIX MONTHS
INTERNSHIP MANUAL**



1. Introduction

Senate of IIT Goa, in its third meeting dated 10-06-2019, have accepted the possibility of introducing a six-month internship in the B.Tech curriculum. Such internships will provide valuable hands-on experience and enhanced potential job opportunities to students, while it helps to build strong academia-industry relations. In addition, such experience will aid to produce innovative and talented workforce for the nation.

2. Duration and academic credits

B.Tech. students of all four disciplines (Computer science and engineering, Electrical engineering, Mechanical engineering and Mathematics and Computing) can avail a 6-months internship during their 7th semester (tentatively Mid-May—Mid-November). At this point, students would have completed all core courses of the respective schools and have also opted for a few electives. This will help students to handle a technical project in an industry. Moreover, they will be available for campus placements which usually starts from December every year.

Students can avail 6-months internships in either one of the following types of organization

- An industry
- A research lab¹
- Academic institutes

The internship should have at least 4 months duration. The academic credits for internship are fixed at 24 irrespective of the extra duration. The policy for grading will be decided by the individual department. The internship duration has to match with the schedule (start date and end date) of the regular semester to ensure the evaluation process and grading to be completed as per the academic calendar.

3. Internship selection process

While the placement cell and respective schools may provide necessary guidance, *it is the responsibility of students* to secure an internship position in any one of the organizations mentioned above.

The general procedure for availing internship is given below,

- **Step 1** The student applies for an internship in a company, and upon receiving a positive response, he/she requests Internship Notification Form (INF) to be filled by the company. INF contains details about project description, some additional technical details about the learning outcomes, location of the internship, salary and other details.
- **Step 2** The students forwards completed INF received from the industry to the internship committee of respective school. The committee will take a decision about the quality of internships. Whether to approve an internship based on INF rests entirely on the department. The committee should make a decision on approval within 2 working days, upon receiving the INF.

¹ Like NAL, DRDO etc

- **Step 3** If INF is approved by the department, the student appears for the selection processes set by the company. If the company insists on conducting selection processes before the approval of INF, the student can participate in them. However, only after the approval by the committee, the student can confirm the offer.
- **Step 4** Once a student is confirmed for an internship from a company, he/she will be marked unavailable for further organizations. We follow one-student-one-internship policy in order to maintain a healthy industry-academia relationship.
- **Step 5** The department will allocate one internal faculty advisor for each internship, while the company allots an industrial counterpart.

In addition to the above procedure, the following modes of selection are also possible. In both cases, the placement cell or faculty need to make sure that the completed INF is made available to the internship advisory committee. The internship will be confirmed only after receiving approval from the committee.

- The placement cell can contact companies for internships. In this case, the opening will be announced in the portal for all students, and the selection process happens in the exact same way as the placements.
- Any faculty member of the department, through his/her industry contacts, can find internships for students.

Any confirmation of internship from the company should be communicated to the placement cell and the department within 3 working days. If a student fails to communicate, he/she will not be allowed to take that particular internship.

4. Guidelines to schools at IIT Goa

Each school is advised to form an internship advisory committee to address all academic activities related to the internship, ranging from approving an internship to grading.

The roles of the internship advisory committee are as follows

- Evaluate the INF received from the company and make a decision on approving the internship. Whether to approve an internship based on INF rests entirely on the respective school. However, it is advised to approve an internship that involves a core-department related project. The committee should make a decision on approval within 2 working days, upon receiving the INF.
- The committee will form an evaluation criterion for the internship, and the following are the recommendation from the institute. At the end of 6 months, each student is expected to submit a project report, and make a presentation to a department-specific evaluation committee. Grades will be given based on the quality of both report and presentation, as well as on the report submitted by the external supervisor. Further details about the evaluation mechanism can be worked out by the department.
- For each project, the committee will appoint a faculty member as an internal advisor.
- If a student finds an internship on his own, or a faculty member finds an internship for students, the committee is expected to inform the placement cell immediately about such internships.
- The committee will make decisions about policies of the respective schools regarding the internships.

- Whether to allow cross-disciplinary internships, or only core-department related project.
- If a student is not given sufficient technical work during the internship, initiate a mechanism to call the student back from the company.
- Can students take either a summer internship and a B. Tech project or a summer internship and required number of courses.

The roles of the internal advisor are as follows:

The advisor must conduct periodic evaluations (at least monthly) of the students' progress, and stay in touch with the external supervisor appointed by the industry.

At the end of every calendar month, the advisor is expected to collect a progress-update from the intern.

- In case, if a student has technical/non-technical issues during the internship, the internal advisor will immediately talk to the student and the external supervisor to work out a solution. If such a solution is not possible, the advisor will notify the internship advisory committee of the same.

5. Guidelines to companies

- An organization must share all details pertaining to the internship and submit the duly filled Internship Notification Form (INF) to create an opening. It is expected that the organization has a well-defined project, and a clearly stated objectives for the student.
- Since internships involve academic credits, the company will have to allot a supervisor for each intern, called as external supervisor. The external supervisor is expected to share the progress of the intern on a regular basis with the internal advisor (a faculty from IIT Goa). This will help the institute to monitor the progress of the project continuously. Moreover, at the end of each calendar month, the intern submits monthly interim progress report to the internal advisor.
- The organization, under no circumstance, can give students work related / unrelated to the internship before the date of joining.
- The company is expected to release the list of selected candidates within 2 working days after the selection process. This will make sure that the students selected for the company will not appear for any other companies.
- The company is suggested to keep a waitlist of students. In case, if a student fails to sign will for a particular position, the offer will automatically be apprised to the next student in the wait list.
- In case of pre-placement offers (PPO), all companies are expected to inform PPO always through the placement cell only.
- At the end of the internship, the external supervisor needs to fill an evaluation form for each intern. The information received through this form will be used in grading.

6. Guidelines and regulations to students

- Students who are interested in internships are required to register in placements portal on/before the deadline.
- Students appearing for an interview should have zero outstanding backlog courses at the end of 5th semester.
- Students appearing for an interview at the beginning of 5th semester can have at most two backlogs, provided they have registered for the same in 5th semester and clears the same by the end of 5th semester.
- If a student applies for an internship via the placement's portal, he/she has to appear for all selection processes set out by the company.
- Once the department approves a confirmed internship for a student, he/she will be marked unavailable. Such students will not be allowed to take another opportunity, even in their own efforts.
- PPO should be informed within 3 working days to the placement office.
- In case of any of the following scenarios, the respective students will be given an FR grade. Such a student will have to complete course works for the required credits; he/she will not be given another opportunity to take a long-term internship. Moreover, the student will not be allowed to participate for campus placements.
 - Any unprofessional behavior during the internship duration in the organization
 - Any false claims in the CV, cover letter, or related documents
 - During the selection process, discussing with company that he/she is not interested in the position.
- The students cannot leave the internship without informing the respective school. If a student finds any difficulty in the organization, he/she needs to inform the internal advisor of the department immediately. The advisor will help the student to find an appropriate solution within a week. If a student will leave the organization without communicating to the school, he/she will be given an FR grade. Such a student will have to complete course works for the required credits. Moreover, the student will not be allowed to participate in campus placements.

7 Evaluation Policy

7.1 Computer Science and Engineering

Deadlines	Description
Aug 5	Collect Name / Address/ Email /Mobile number of the Industry Supervisor
Aug 15	Project statement – Approved by Industry Supervisor Name of the project Statement of the problem Implementation Approach Dates of major milestones Training Study High-level Design (for software project) Coding (for software project) Testing and Acceptance Criteria (for software project) Final Project deliverables
Aug 30	First Meeting between Student/IITGoa faculty advisor/Industry advisor (Deadline: 30-Aug-2020) The student to present the status of the project Industry supervisor's input on the progress IIT Goa and Industry Supervisor to jointly evaluate progress – with Rubric Excel sheet.
Aug 30	Monthly status report (approved by Industry supervisor) by the student
Sep 30	Monthly status report (approved by Industry supervisor) by the student
Oct 30	Monthly status report (approved by Industry supervisor) by the student
Nov 15	Project Submission Report – approved by Industry supervisor
Nov 30	Project Evaluation Meeting: Student, IIT Goa Faculty, Industry supervisor The student to give presentation on the achievement Deliverables – work products (documents, design, code) Presentation/on-line demo by the student Joint evaluation of Student's performance (IIT Goa faculty, Industry Supervisor)
As per Academic Calendar	Final Grade Submission (IIT Goa faculty)

- Evaluation done by industry supervisor will carry 50% weightage and evaluation done by institute evaluator(s) will carry 50% weightage.

7.2 Electrical Engineering

1. The department will have two stages of evaluation for the internship. One will be the mid-semester evaluation, which carries 30% of the weight. Another will be the End-semester evaluation, which carries 70% of the weight.

2. For ease of evaluation and appropriateness three evaluation subcommittees are formed based on the focus areas. The following are the focus areas.

The evaluation subcommittee:

- a. Signal Processing and Communication
- b. VLSI and Micro Electronics
- c. Electrical Machines and Power

3. The evaluation will be done by the 2 member department internship evaluation subcommittees along with the supervisor. In case the supervisor is a member of the subcommittee, s/he can suggest another faculty colleague take his role as a subcommittee member.

4. In the entire evaluation process, each subcommittee member's evaluation will carry 10% of the weight, whereas the supervisor will carry 80%. The supervisor may take help of the internal/external experts to complete the evaluation.

5. For the mid-semester evaluation, the student has to submit a 1-2 page report to the evaluation subcommittee at least a week prior to the evaluation. In addition, the student has to give a presentation on the scheduled date of evaluation. The supervisor may invite the internal/external experts to the presentation. The evaluation will be done based on the report, presentation, and interaction with the student.

6. For the End-semester evaluation, the student has to submit a comprehensive report about his internship. In addition, the student has to give a presentation on the scheduled date of evaluation. The supervisor may invite the internal/external experts to the presentation. The evaluation will be done based on the report, presentation, and interaction with the student.

7.3 Mechanical Engineering

There are four components for evaluating the internship

1. Objectives submitted within 6 weeks of starting the internship.
2. Regular, fortnightly or monthly, formal update to both the advisors
3. Mid-term evaluation
4. Final evaluation

For each internship, an evaluation committee will be formed consisting of three persons namely, external and internal advisors and an independent faculty member appointed by the internship committee. Mid-semester evaluation will consist of a presentation for 15 mins with 5 mins for Q&A. Mid-semester evaluation will be conducted in the 2nd or 3rd week of September. For the end-semester evaluation, the student will submit a report and give a 30 min presentation including 10 min for Q&A. The final evaluation will be conducted in the 1st or 2nd week of December. The internal advisor will organise the evaluation and further communicate the scores obtained by the student to the internship committee. The weightage for the mid-semester evaluation will be 30% and that of the end-semester evaluation will be 70%. The weightage of each member for the mid-semester evaluation will be 10%. For the end-semester evaluation, it will be 30% for the external advisor, and 20% each for the internal advisor and independent member. Below are the rubrics for each member. Each parameter will be scored on a scale of 1-10 like our usual grading.

External advisor

SI no.	Parameter	Score	Weightage
1	Discipline (Punctuality, Sincerity, proper communication)		20%
2	Eagerness to learn		20%
3	Technical work output		20%
4	Oral and presentation Skills		20%
5	Objective (mid-sem) / Report (end-sem)		20%

Internal advisor

SI no.	Parameter	Score	Weightage
1	Regular updates including the objective document		40%
2	Technical work output		20%
3	Oral and presentation Skills		20%
4	Objective (mid-sem) / Report (end-sem)		20%

Independent member

SI no.	Parameter	Score	Weightage
1	Technical work output		50%
2	Oral and presentation Skills		25%
3	Objective (mid-sem) / Report (end-sem)		25%

7.4 Mathematics and Computing

The **+** INTERNSHIP EVALUATION SHEET is divided into four parts, and weightage is given below.

- (1) Internal Evaluation by Industry Supervisor (weightage 15%).
- (2) Monthly Reports Evaluation by Internal Supervisor (weightage 15%).
- (3) Mid-Sem/End-Sem Evaluations by Industry Supervisor (overall weightage 35%, where Mid-Sem Evaluation weightage will be 50% and End-Sem Evaluation weightage will be 50%).
- (4) Mid-Sem/End-Sem Evaluations by Internal Supervisor (overall weightage 35%, where Mid-Sem Evaluation weightage will be 50% and End-Sem Evaluation weightage will be 50%).

The important deadlines are mentioned in the table below:

Deadlines	Description
Aug 5	Details of the Industry Supervisor: Name/Address/ Email /Mobile number.
Aug 15	Project statement submission (approved by the industry supervisor) by the student
Aug 30	Monthly status report (approved by the industry supervisor) by the student
Sep 30	Monthly status report (approved by the Industry supervisor) by the student
	Mid-semester evaluation, the student has to submit a report (approved by the industry supervisor) to the internal advisor at least a week prior to the evaluation. The student has to give a presentation on the scheduled date of evaluation.
Oct 30	Monthly status report (approved by the industry supervisor) by the Student.
Nov 15	Project Submission Report (approved by the industry supervisor)
Nov 30	End-semester evaluation
As per Academic Calendar	Final Grade Submission by the internal advisor