Department of Computer Science and Engineering

College of Engineering Trivandrum

Summer Internship on

IDEA 2.0

(Innovative Design and Experimentation of Algorithms)

Think, Code, Analyze

18th May 2026 to 29th June 2026

PROGRAM GUIDELINES

1. Program Description

This internship program is structured to offer undergraduate students a unique opportunity to immerse themselves in the field of algorithm design and analysis. The internship focuses on research-driven problem-solving in computational domains, encouraging students to move beyond textbook examples and engage with real-world and theoretical challenges. Participants will be trained to design algorithms for specific problems, implement them in a programming language, evaluate their performance, and compare them with alternative approaches. The goal is to nurture a research-oriented mindset, critical thinking, and strong technical foundations that can support future academic or industrial research pursuits.

2. Program Objectives and Outcomes

Objectives:

- Introduce research methodology in algorithms.
- Enhance algorithmic thinking and analytical skills.
- Provide hands-on experience in solving open-ended problems.

Outcomes:

- Ability to design and implement algorithms for novel problems.
- Familiarity with algorithm validation and performance comparison.

- Exposure to technical writing and research documentation.

3. Eligibility and Prerequisites

Eligibility:

The internship is open to students currently pursuing in the 2nd or 4th semester of a B.Tech degree program. Eligible branches include

- Computer Science and Engineering (CSE) and Allied Branches
- Information Technology (IT),
- Electronics and Communication Engineering (ECE),

Prerequisites:

- Participants should possess basic knowledge of at least one programming language such as C, C++, Java, or Python
- Strong logical reasoning and analytical thinking skills
- While prior knowledge of data structures and algorithms is an advantage, it is not mandatory

4. Registration Guidelines

- Interested students must register using the below Google Form

  https://forms.gle/PMgt4CuQbFyka4k69

- **No registration fee**
- Last date to apply: **08.05.2026**
- Only limited seats are available.
- Selection for the summer internship is at the discretion of the host department; only shortlisted candidates found suitable during the initial screening will be contacted by email.

5. Accommodation Facility

Please note that no accommodation or lodging facilities will be provided by the organizing institute or host department. Participants attending the internship in person will need to make their own arrangements for housing and travel. It is recommended that students explore options such as hostels, paying guest (PG) facilities, or rental accommodations near the institute.

6. Evaluation and Certification Criteria

Interns will be evaluated through a combination of continuous assessment and final project performance. Evaluation components include:

- Participation and Engagement (20%), which tracks regular attendance, involvement in discussions, and initiative in solving problems.
- Assignments (30%) to test conceptual and practical understanding.
- Project Report (20%), where interns document their approach, algorithms used, analysis, and conclusions.
- Project Presentation (30%), judged based on problem clarity, innovation, algorithm design, implementation accuracy, and presentation quality.

To be eligible for certification, students must maintain a **minimum of 90% attendance**, submit a completed project with code and documentation, and deliver a final presentation. Students meeting these criteria will receive a Certificate of Completion acknowledging their participation and achievements.

7. Other Instructions for Interns

To facilitate an effective and enriching internship experience, all selected candidates are required to adhere to the following instructions:

Laptop and Software Requirements:

Participants must carry their own laptops throughout the internship. These will be used for tasks such as programming, simulations, generating data and results, and preparing documentation.

Attendance and Punctuality:

Interns must arrive by 9:00 AM and remain in the assigned lab until 4:00 PM each working day. Maintaining at least 90% attendance is essential for obtaining a certificate of completion. Any instances of tardiness or early exits will be logged and may impact the final evaluation.

Conduct and Discipline:

Professional behavior, integrity, and discipline are expected at all times. Interns must respect fellow participants and faculty, and comply with institutional conduct guidelines. Any act of indiscipline, or damage to equipment or facilities, may result in dismissal from the program.

Project Ownership and Intellectual Property:

All work produced during the internship, including research findings and project

outcomes, will be regarded as the intellectual property of the program coordinator and the host institution.

Laboratory Safety and Equipment Use:

Interns must handle all laboratory instruments, tools, and components responsibly and with care. Any incidents involving loss or damage must be reported immediately. Access to lab facilities is limited to authorized hours unless special permission is granted.

Internship Diary, Evaluation and Documentation:

Interns are expected to maintain a daily record of their activities in an internship diary, following the provided templates. Collaborative projects must be completed with timely submissions and effective teamwork. All final deliverables, including designs, code, and reports, must be submitted before the program ends. Progress will be assessed through weekly reviews, focusing on engagement, problem-solving, and technical competence. Final evaluation will be based on the quality of research, completeness of documentation, and presentation skills.

Duty Leave:

Duty leave shall be granted to students required to attend academic commitments (e.g., university examinations, lab exams, or presentations) at their parent institution.