

REPORT

Peer Mentoring Programme

for

First-Year B.Sc. (Hons.) Computer Science Students

Organized by
Department of Computer Science
(Under the Aegis of IQAC)

Topic: Data Representation, Digital Logic Circuits, and Digital Components

Dates: 3–22 October 2025 *(Every Tuesday and Friday)*

Mode: Online (Google Meet)

Time: 7:00 P.M. – 8:00 P.M.

Mentors

- Preeti – Second-Year, B.Sc. (Hons.) Computer Science
- Akshaya A. Nair – Second-Year, B.Sc. (Hons.) Computer Science

Faculty Coordinators

- Ms. Priyanka Gupta, Assistant Professor, Department of Computer Science
- Ms. Divya Kwatra, Assistant Professor, Department of Computer Science

Overview

The Peer Mentoring Programme was organized to support first-year B.Sc. (Hons.) Computer Science students in understanding the fundamental concepts of Computer System Architecture. The programme provided an interactive learning environment where students could clarify their doubts and strengthen their conceptual understanding of challenging topics. Through peer-to-peer

learning, the mentors played a significant role in simplifying complex concepts, encouraging active participation, and making the sessions engaging and effective.

Programme Objectives

- To help students understand the fundamental concepts of Computer System Architecture.
- To enhance problem-solving abilities and strengthen conceptual understanding.
- To simplify complex topics through peer-to-peer learning, discussion, and collaborative problem-solving.

Topics Covered

- Data Representation
- Logic Gates
- Boolean Algebra (Representation, Simplification, and Implementation of Boolean Functions)
- Karnaugh Maps (K-Map) Simplification
- Canonical Forms
- Flip-Flops
- Combinational Circuits (Half Adder, Full Adder, Half Subtractor, and Full Subtractor)
- Encoders
- Decoders

Highlights

Interactive Learning

The sessions combined theoretical explanations with practical examples, enabling students to understand concepts more effectively and apply them to problem-solving.

Collaborative Learning

The peer mentoring approach encouraged discussion, knowledge sharing, and collaborative learning, creating a supportive academic environment.

Effective Peer Mentorship

The mentors were approachable, well-prepared, and encouraged active participation throughout the sessions, ensuring that students felt comfortable asking questions and clarifying their doubts.

Feedback and Outcome

The Peer Mentoring Programme received an encouraging response from the participants. The sessions were well structured, interactive, and highly beneficial in simplifying complex concepts of Computer System Architecture. Previous Year Questions (PYQs) were also discussed, helping students understand the examination pattern and the application of concepts in problem-solving. Overall, the programme successfully promoted collaborative learning, enhanced conceptual clarity, and strengthened students' confidence in the subject.