POLICY ON CAPSTONE PROJECT FOR B.TECH PROGRAMMES

1. Purpose & Objectives

The Capstone Project is a key component of the B.Tech curriculum and is designed to:

- Enable students to integrate and apply engineering knowledge acquired throughout the course to solve real-world problems.
- Encourage innovation, critical thinking, design skills, and project execution.
- Promote team collaboration, effective communication, and technical documentation.
- Provide exposure to industry practices, emerging technologies, and research methodologies.
- Meet the academic requirements of KTU, including compliance with Outcome-Based Education (OBE) standards and Program Outcomes (POs).

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2. Scope

- Applicable to all final-year B.Tech students across all departments.
- Covers Capstone Design Project / Final Year Project, typically carried out during the 7th and 8th semesters.
- May be conducted:
    - Individually or in teams (up to 4 students per team).
    - Within the institution or in collaboration with industries, startups, research labs, or government bodies.
- Projects may be:
    - Design-based, research-based, product development, or problem-solving in nature.

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3. Guidelines

A. Project Selection and Approval

- Projects should be selected based on relevance to the programme, feasibility, and potential impact.
- Students can propose original ideas or choose from faculty/industry-suggested topics.
- Each project must be formally approved by the Department Project Evaluation Committee.
- Interdisciplinary and industry-collaborative projects are strongly encouraged.

B. Supervision

- Each project team must have:
    - An internal faculty guide (mandatory).

- An external/industry mentor, if the project is conducted off-campus or in collaboration with an external entity.

- Faculty guides are responsible for monitoring progress, providing technical support, and ensuring academic integrity.

C. Project Phases and Documentation

- The project should be completed in **two phases**:
  - **Phase I** (Semester 7): Problem identification, literature survey, design, and initial implementation.
  - **Phase II** (Semester 8): Final development, testing, validation, documentation, and presentation.
- Students must submit:
  - Project proposal with objectives, methodology, and timeline.
  - Attend interim and final review evaluations.
  - Final project report in the prescribed format.
  - Demonstration/Presentation before an internal/external evaluation panel.

D. Evaluation Criteria

- Evaluation will be based on:
  - Problem definition and objectives
  - Innovation and technical depth
  - Methodology and implementation
  - Teamwork and project management
  - Report quality and presentation
  - Viva voce performance
  - Submission or acceptance of the project as a conference paper, journal paper, or technical article in a reputed journal or venue.

Marks will be awarded as per KTU regulations

E. Plagiarism and Originality

- Projects must be original and free from plagiarism.
- Reports will be checked using plagiarism detection tools.
- Projects involving AI tools must clearly document their use and should not compromise originality.

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4. Penalties / Non-Compliance

A. For Students

- Failure to submit reports/reviews on time may result in grade reduction or incomplete status.
- Plagiarized or outsourced projects will be disqualified and may require repetition in the next academic cycle.
- Inactive or non-contributing team members may be removed and evaluated individually.
- Students who fail to complete the project will be ineligible for graduation until completion.

B. For Faculty

- Faculty guides must provide timely guidance and monitor academic integrity.
- Failure to conduct proper reviews or document progress may lead to academic audit remarks.

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5. Institutional Support

- The institution should ensure:
    - Access to necessary labs, tools, software, and resources.
    - Opportunities to engage with external mentors, industry experts, and researchers.
    - Training sessions on project documentation, intellectual property rights (IPR), and presentation skills.
