



IIT Mandi

Proposal for a New Course

Course number	: Exploratory Project
Course Name	: CS516P
Credit Distribution	: 0-0-6-3 (L-T-P-C)
Intended for	: M.Tech.Computer Science and Engineering (CSE)
Distribution	: Core for M.Tech in CSE
Semester	: Winter Session of Year I
Prerequisite	: None
Mutual Exclusion	: None

1. Preamble:

The objective of this course is to provide hands-on experience in exploring different areas in computer science to the M.Tech. (CSE) students after completion of their first-semester course work. This course will not only help them in understanding the practical application of various core and elective courses, but also will prepare them for specializations they may plan to pursue.

The students are expected to identify a problem to solve, read the literature, identify the possible solutions and implement at least one for the solution. In the process, they are expected to identify the research gap and propose a possible direction for future work. To ensure the engagement of each and every student, the projects are supposed to be done individually. Students are encouraged to pursue the same or similar projects as their dissertations.

2. Course Modules with quantitative lecture hours:

It is advisable that the projects should be related to the courses M.Tech.(CSE) students may credit or the specializations that this program offers. Therefore, students can opt for any project in Theoretical Computer Science or Computer Systems or Artificial Intelligence/Machine Learning (AI/ML). Additionally, they are allowed to select a project from other areas, e.g., Human Computer Interaction, Signal Processing and Communications, or Applied Mathematics, as long as the project has 30% or more overlap with any of the three specializations of M.Tech. (CSE) curriculum.

Deliverables: A student must declare the deliverables of her/his project in the initial

project proposal after consulting with the respective mentor(s). While the initial project proposal and the final report carry some marks, a significant portion of the marks, 70% or more, is allotted to the deliverables to emphasize their importance.

Contact hours: On average, a student should work 40 hours per week on her/his project. The students are supposed to meet their respective mentors at least once a week to report their progress.

Evaluation: There will be two evaluations, one in the beginning of the winter vacation and the other one in the beginning of the forthcoming semester. In the first evaluation, the students will be evaluated based on the initial project proposals they have submitted. During the second evaluation, they will be evaluated based on their progress with respect to the promised deliverables, their project reports, and the understanding they have gained from their respective projects.

3. Text books:

Related literature.

4. References: N/A

**5. Similarity with the existing courses: N/A
(Similarity content is declared as per the number of lecture hours on similar topics)**

S. No.		Course Code	Similarity Content	Approx. % of Content
1.				

6. Justification of new course proposal if cumulative similarity content is >30%: N/A