



**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**Syllabus for Integrated MSc, 10<sup>th</sup> Semester**

**Branch: Computer Science**

**Subject Name: Project-2**

**Subject Code: 13100301**

**Teaching and Examination Scheme:**

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE(E)	PA (M)	PA (I)	ESE (V)		
0	0	28	14	0	0	100	200	300

**Objective:**

This course focuses on advanced-level research, development, and implementation of a full-fledged Internship/project that integrates knowledge acquired throughout the MSc program. Students will conceptualize, design, and develop innovative solutions to real-world or research-oriented problems in Industry/Academic Institute. This Internship/project builds upon the skills developed during Project-1 and aims to foster deeper technical expertise, critical thinking, and project management skills.

By the end of this course, students will be able to:

- **Identify and define** a complex research problem or application-oriented project.
- **Formulate a comprehensive plan** and carry out the design and development using appropriate tools and methodologies.
- **Demonstrate proficiency** in relevant technologies, frameworks, and programming skills.
- **Integrate concepts** from various computer science domains (e.g., AI, IoT, Cybersecurity, Data Science).
- **Document and present** the project effectively to both technical and non-technical audiences.

**Project Outline:**

- Week 1-2: Project Proposal**
  - Topic finalization (research-oriented or industry-based).
  - Problem identification, background study, and literature review.
  - Defining objectives and scope of the project.
  - Drafting the proposal document.
- Week 3-4: Planning & Design**
  - Defining system architecture, methodology, and tools.
  - Project timeline (Gantt chart, milestones).
  - Designing prototypes or initial models.
- Week 5-8: Development Phase-1**
  - Core implementation of the project.
  - Regular progress reviews with mentors.
  - Iterative development and testing.
- Week 9-12: Development Phase-2**
  - Advanced features or modules implementation.
  - Integration and debugging.



**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**Syllabus for Integrated MSc, 10<sup>th</sup> Semester**

**Branch: Computer Science**

**Subject Name: Project-2**

**Subject Code: 13100301**

- Preliminary user testing and feedback collection.
- 5. **Week 13-14: Documentation & Report Writing**
  - Preparing the project report (Abstract, Methodology, Results, Discussion).
  - Compiling code documentation and user manuals.
- 6. **Week 15-16: Final Presentation and Demonstration**
  - Project demonstration and Q&A.
  - Final submission of the project report and deliverables.
  - Evaluation by a panel of experts.

**Deliverables:**

- **Project Proposal Document**
- **Mid-term Progress Report**
- **Final Project Report**
- **Codebase and Documentation**
- **Project Presentation and Demonstration**

**Evaluation Criteria:**

Internal Evaluation	100 Marks
External Evaluation	200 Marks

- **Proposal and Planning: 10%**
- **Technical Implementation: 40%**
- **Project Report: 20%**
- **Presentation & Demonstration: 20%**
- **Innovation and Complexity: 10%**

1. During the project work, Institute will conduct presentations of progress of project at different stages. There will be 100 internal marks for progress reports. At least three progress reports need to be conducted by the institute.
2. After the completion of the system development project work, Institute has to provide confirmation of work done (certificate of work completion).
3. After the completion of a system development project, the University has to arrange Viva/Presentation examination, which will be 200 marks. The examination Panel should include Academic / Industry Experts. The experts will decide student's marks out of 200 as per his performance. Panel should contain experts as per university norms.