

## Project – I

B.E. Sem. VII [ETRX]

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### EVALUATION SYSTEM

	Time	Marks
<b>Theory Exam</b>	–	–
<b>Practical Exam</b>	–	–
<b>Oral Exam</b>	–	25
<b>Term Work</b>	–	25

**Note :** One faculty will not guide more than 3 projects in a semester. For every group allotted to faculty the load is considered as 1 Hour per group per week, be specified in time table of the faculty. Each group will not have more than 4 students.

**Rationale :** Project allows the student to work independently to put the knowledge of Electronics engineering theory into practice.

### DETAILED DESCRIPTION

**Purpose :**

- Engineering Project is a technical mandatory course.
- Project is the conclusive effort of independent work in the span of two semesters. The project course challenges the student to explore wide range of topics and opportunities for innovation.
- Responsibility is placed on the student to apply learning from various engineering courses and to seek out and make the best use of the available resources in terms of faculty, staff, library, laboratory, etc.
- This course is an opportunity for students to further develop the managerial skills while working in a team, creative skills by developing novel engineering solutions and communication skills presenting their end application, all necessary to be a successful engineer.
- Introducing the concept of professional literature and Gaining experience in writing a technical document.
- Enhancing employability through the evidence of independent work.

The students of Electronics Engineering are expected to build a project by designing an engineering solution to the any of the following:

- Improve existing technology
- Real life concerns to improve basic transport/healthcare/pollution/population/security/utility services - water, gas, electricity, drainage, communication etc /infrastructure, housing etc
- Develop mathematical models to facilitate analysis and verifying the same
- Build dedicated or support applications for space/ military/medical commercial/telephone/industrial/scientific.

To complete the project, students should describe a mathematical model, simulate, design, development, implementation or small research project in an area of specialization.

**Note:** Topics are given for student reference and students can explore beyond the topics specified under the guidance of project guide

**Guidelines:**

- Students should work under the guidance of any faculty member from the department.
  - A faculty member must officially supervise all projects. Industry/ research Institute's supervisor (Qualified) may, under the direction of a faculty member, also supervise students. A faculty member is always responsible for the grading of every project.
  - Group members should not be more than four.
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- Project is expected to be completed by end of VIII semester
- At the end of VII semester, students should submit synopsis summarizing the work done in VII semester. The objective of this activity is to achieve the following
  - Introduction/need/scope of the project.
  - Clarity on the status of project and plan of action for VIII semester.
  - Accumulation of the literature survey done (No un-authentic URL): The literature survey should be through standard Text book, References, Other publications of journals like-IEEE, Wiley Interscience, Springer, Elsevier or similar, of repute.
  - Procurement of Software/ Hardware needed for Installation/ Testing of projects in VIII semester.
  - Corrective steps to be taken if any.
- **Students are expected to adopt systematic approach towards project completion**
  - Each project should follow the scientific method and should apply the problem-solving approaches studied in earlier courses. In general, this includes: Gathering Information: A review of the state of the art should be made using the published literature as well as textbooks and student reports from previous projects if available.
  - Proper Planning: Students must define the project goals and must organize a logical sequence of steps to achieve these goals. This will vary depending on the project, ability to procure materials, availability of equipment, etc.
  - Regular Meetings: Students must meet regularly (weekly-4Hrs in VII Semester and 8 Hrs in VIII Semester) with the project guide.
  - Professional Record Keeping: Proper records are essential and are typically kept in a log book with all details of activity noted. Be sure to use standard nomenclature and work in the SI system of units. (Log-book will contain in table format: Date/ Activity/ outcome/ comment on outcome/ Resources utilized/ Next meeting date, Target/ Guide's Remark)

