19PC005 INTRA-DISCIPLINARY PROJECTS-I

Hours Per Week :

L	T	P	C
0	0	2	1

COURSE DESCRIPTION AND OBJECTIVES:

These projects arise from a combination of courses. The major objective of these projects is to enable students understand the relationship between the courses.

COURSE OUTCOMES:

Upon completion of the course, the student will be able to achieve the following outcomes.

COs	Course Outcomes
1	Map different courses to gain the knowledge of intra-disciplinary engineering.
2	Function effectively as an individual and as a member or leader in diverse teams.
3	Comprehend and write effective reports and make effective presentations.

LIST OF INTRA - DISCIPLINARY PROJECTS

- Audio pre-amplifier.
  (Combination of courses: Electronic Devices and Circuits, Signals and Systems).
- Water level indicator using priority encoder.
  (Combination of courses: Electronic Devices and Circuits, Digital System Design)
- Metal detector circuit.
  (Combination of courses: Electronic Devices and Circuits).
- Simple Two Way Intercom Circuit.
  (Combination of courses: Electronic Devices and Circuits, Digital System Design).
- Single transistor audio mixing circuits.
  (Combination of courses: Electronic Devices and Circuits, Signals and Systems).
- Soft start circuits for power supply.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Design laptop or mobile adapter.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Design wideband amplifier using FET.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).

- Design of piano using 555 timer IC.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Bi-Directional Visitors Counter.
  (Combination of courses: Electronic Devices and Circuits, Digital System Design).
- Mobile detector circuit.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Battery charger using SCR.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Line follower robot using IR sensor.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Electricity Generation from Speed Breakers.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Thermistor Temperature Sensing Alarm.
  (Combination of courses: Electronic Devices and Circuits, Digital System Design).
- Battery Level Indicator.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Rain Alarm Project.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Electronic Mosquito Repellent Circuit.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).
- Mobile incoming call indicator.
  (Combination of courses: Electronic Devices and Circuits, Printed Circuit Board Lab).

NOTE: The afore - mentioned list is not exhaustive and the objective is to provide an idea of some of the projects that can be executed by students arising from a combination of courses. Students are given full flexibility to choose any projects of their choice under the supervision of faculty Mentors.