BEEE Lab

Course Objective

To develop their own embedded system which is application specific to solve given real time problem by using open source platform.

Course Outcome

1. Students in this class will develop fluency with the physics of small robots, an understanding of physical inputs and outputs, and programming tools that enable autonomous behavior.
2. Specific topics will include digital I/O, serial I/O protocols, and analog-to-digital conversion. A lecture cum lab course format will be employed to provide hands-on experience and active learning techniques.
3. Students will be able to develop applications having sensing and decision making capabilities.
4. Students will be able to present their project work in form of a technical report.

Introduction Session

Hands-on session on breadboard, Digital Multimeter, Function generator and DSO.

List of Practical's

1. Design a LED flasher.
2. Design Christmas dual led chaser lights.
3. Design a door bell using push button.
4. Design a Programmable Digital Data Display system.
5. Design RC/RL circuit to observe its lead/lag characteristics.
6. Design an obstacle detector and distance measuring device.
7. To verify Ohm's Law and Kirchhoff's Laws.
8. Design temperature based Fan Speed Control system.
9. Design an automatic night lamp.
10. Design a high power DC motor control system using MOSFET.
11. Design a smart phone controlled light system.
12. Project with technical report.