

Embedded system and Robotics lab

The necessary software and 30 PCs were used to set up this lab. It offers an excellent design environment for a variety of micro projects, practical training courses, and simulation tools for embedded-based circuits like Proteus, Keil, Arduino, and robotics-based simulation software like Webots and Arduino. With the substantial hardware equipment in this lab allows the learner to deepen their understanding and validate what the students have learned in the theoretical portion.

Further, this lab has established the facility for the PG (Embedded System) programme. For this course, this lab has plenty of hardware equipment's such as Cortex M4, Beaglebone, raspberry PI, universal embedded trainer kit etc...Also. MapuSoft Professional Pack Academic software exclusive for PG course. This software enables the students to do their projects as well as experiments in effective manner. This lab is equipped with the necessary software, hardware, and sensors for research...

Major Equipment's of this Laboratory:

- 1 ZIGBEE MODULES 100M RANGE
- 2 8086
- 3 8051
- 4 ESA MCB 2140-ED KEIL ARM SINGLE BOARD
- 5 ESA MCB 51-2 SINGLE BOARD COMPUTER BASED ON 8051
- 6 RASPBERRY PI
- 7 FIRE BIRD V2560
- 8 SPARK V ROBOT
9. Cortex M4

List of software:

1. Keil (Licenced)
2. Webots (open source)
3. Arduino (open source)
4. Proteus (open source)
5. MapuSoft Professional Pack Academic (M.Tech) (Licensed)

Utilization:This lab is used for theB.Tech Microprocessor and Microcontroller, Embedded system and Robotics, and Embedded system and Device Drivers laboratories. It is also used for the M.Tech Embedded systems and RTOS. This lab also provides assistance to other domain laboratories.