BMS
INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Avalahalli, Doddaballapur Main Road, Bengaluru – 560064

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Open Course on C programming for Embedded Systems

Dt: 25-07-2018

An open course on C programming for Embedded Systems was organized in the Department of Electrical and Electronics Engineering by Dr N Ramarao from 02-08-2018 to 07-08-2018. This open course is designed for 25 hours includes both theoretical and hands on sessions and covered all the basics of C programming language, microcontrollers programming, interfacing various sensors and actuators. Overall 35 students attended this course and learned developing embedded system programs for Atmega microcontrollers to interface with sensors and actuators along with basic concepts of C programming and errors debugging.

The students who attended this course can able to:

1. Develop embedded system programs using C language
2. Analyse and rectify the errors in C language programs
3. Develop programs for Atmega microcontrollers to interface with sensors and actuators
4. Design and develop projects for any specific applications using microcontrollers.

Sl.No.	Date	Time	Course Contents
1	2-08-2018	9:30AM–12:30PM	*C language basics*: Basic structure of C program, Data Types, Operators
2	2-08-2018	1:30PM – 4:30PM	*Introduction to Arduino:* Program structure, Different types of Arduino boards, Software Installation and running a program
3	3-08-2018	9:30AM–12:30PM	*C language basics:* Control Statements, Arrays, Functions
4	3-08-2018	1:30PM – 4:30PM	*Interfacing with Sensors:* Connecting Switch, Temperature Sensor, Ultrasonic Sensor, PIR Sensor,
5	4-08-2018	9:30AM-12:30PM	*C language basics:* Pointers, Strings, Library functions
6	6-08-2018	9:30AM-12:30PM	*Interfacing with actuators:* Electro Magnetic Relay, DC Motor
7	6-08-2018	1:30PM – 4:30PM	*Interfacing with actuators:* Servo Motor, Stepper Motor
8	7-08-2018	9:30AM-12:30PM	*Communication:* Serial Communication, Bluetooth Communication
9	7-08-2018	1:30PM-4:30PM	Project

BMS
INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Avalahalli, Doddaballapur Main Road, Bengaluru – 560064

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Open Course on Application of PSPICE in the Analysis of Electrical& Electronics circuits and systems

Dt: 25-07-2018

This course is planned to expose the students to develop and analyze electrical and electronic circuits. This course helps the students in analyzing challenging problems which are beyond the curriculum and also helps in solving complex circuits. This tool allows the student to compare the results which are obtained in classroom environment with the simple circuit models of devices, to those obtained by using complex SPICE models.

After attending this course, student will be able to,

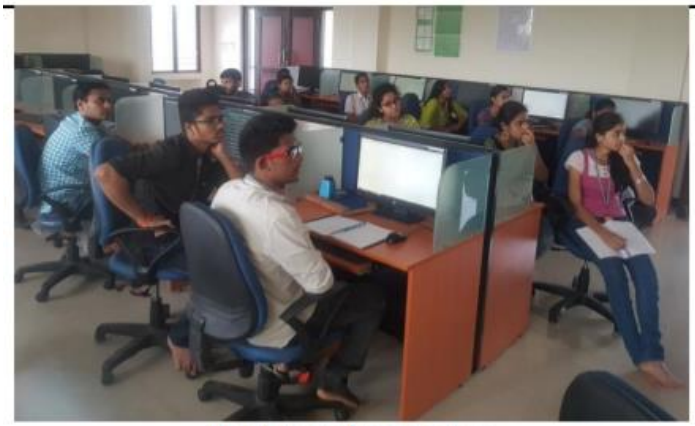
1. Design and analyze electrical, electronic circuits and systems.
2. Analyze transient response for a given system.
3. Verify experimental results with simulation results.

Schedule and Course Contents:

Sl.No.	Date	Time	Course Contents
1	2-08-2018	9:30AM–3:30PM (with one hour lunch break)	*PSpice basics*: Introduction, Circuit description, circuit format, understanding PSpice/D and simulator. Simple circuit simulation.
2	3-08-2018		*DC Circuit Analysis:* DC circuit simulation and verification of circuit laws, Network theorem verification, Transfer function model, Operating point.
3	4-08-2018	9:30AM–12:30PM	*AC Circuit Analysis:* Simulating 1 phase and 3 phase circuits, Bode plots AC systems. Simulation of Amplifier circuits and experimental verification.
4	6-08-2018	9:30AM-3:30PM	*Transient Analysis:* Different source models, Resistor capacitor and inductor model, Transient response of various circuits
5	7-08-2018	9:30AM-12:30PM	*Solid state devices and Circuits:* Simulation diode based rectifier circuits and experimental validation.
		1:30 PM to 4:30PM	A test for 50 Marks will be conducted

An Open course titled “Applications of PSPICE for the Analysis of Electric and Electronic circuits was conducted on 2nd August 2018(5day course). This course was attended by a total of 17 students. This course was planned to expose the students to develop and analyse electrical and electronic circuits. This course helps the students in analysing challenging problems which are beyond the curriculum and also helps them in solving complex electrical circuits. This tool also allows the student to compare the results which are obtained in classroom environment with the simple circuit models of devices, to those obtained by using complex SPICE models.

Photo Gallery:



Session under progress

Participants

BMS
INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Avalahalli, Doddaballapur Main Road, Bengaluru – 560064

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Name of the course Coordinators: Manjunatha Babu P & Ozwin Dominic Dsouza

Open Course Title: TRANSFORMERS AND ARMATURE WINDING DESIGN

Target Students from Branches: 30 To 40 (EEE)

Total duration of the course: 25 Hours. From12.02.2019 to 28.02.2019

No. of Lecture hours: 7 Hr.

No. of hands on / Practical: 18 Hr

Objective:

The main objective is to know several design standards, material specification, properties of electrical material, insulation material, assumptions and constraints. A designer is generally confronted with a number of problems for which there may not be one solution, but many solutions. A design should ensure that the products perform in accordance with the requirements at higher efficiency, lower weight of material for the desired output, lower temperature rise and lower cost. Also they are to be reliable and durable. The design problems, that have been considered to solve, are of different nature from the design worked out in respect of any machine. However, these test problems provide adequate elementary skills in design, which is an indication that a student has a fair knowledge to deal with the entire design.

After the successful completion of the course, students will be able to

CO1: Apply the knowledge of electrical machine design using a design tool (Auto-CAD).

CO2: Design Transformer windings.

CO3: Design armature winding for DC machines.

PHOTOS