

Workshops Organized

Sl.No	Title of Workshop	Date(s)	Funding Agency
1	Embedded Linux on Zynq-7000 SOC using Vivado	15 th September, 2015	TEQIP - II
2	Embedded Systems Software Testing, Robotics Design and Mobile Phone design	8 th October, 2015	TEQIP - II
3	Prakalpa	18 th January, 2016	BMSCE
4	Wireless System Design: Going beyond simulation	10 th May, 2016	BMSCE
5	Unified Technology Learning Platform	17 th – 31 st May, 2016	BMSCE
6	HAM hands on training on FM receiving	21 st May, 2016	BMSCE
7	MyRIO & Quanser Qubes for Control System	30 th – 31 st May, 2016	BMSCE

TEQIP – II Sponsored One Day Faculty Development Program EMBEDDED LINUX ON ZYNQ-7000 SOC USING VIVADO

15th September, 2015



Participants Statistics:

Faculty: 8

Workshop Brief:

In the first session, the experts gave an insight into the embedded systems domain and its role in the communication industry. The roles of the Zynq board in implementation of the embedded systems applications were emphasized. These boards can facilitate high-end student projects both for undergraduate and post graduate courses. This development board is based on the Xilinx Zynq - 7000 All Programmable SOC. Some of the applications include PCI communications, Ethernet point-to-point communications, real time audio-video/image processing, Embedded & SOC designs using MicroBlaze

This board contains necessary tools to create a Linux, Android, Windows or other OS/RTOS based design. Additionally, it offers several expansion connectors to tap the processing system and programmable logic I/Os for easy user access. The second session included hands-on session which included verification of basic experiments through the Zynq boards. Using petalinux the code is executed and also transfers the data between the host and Zynq board using Ethernet Cable. Another application included transfer of file between host and Zynq board.

Coordinators: Prof N Srinivasa Rao & Prof. C Gururaj, , TE

TEQIP – II Sponsored Workshop

EMBEDDED SYSTEMS SOFTWARE TESTING, ROBOTICS DESIGN AND MOBILE PHONE DESIGN

8th October, 2015



Participants Statistics:

Students: 123

Faculty: 12

Workshop Brief:

A one day workshop on “Embedded Systems software testing, Robotics Design and Mobile Phone Design was organized by the department of Telecommunication Engineering, BMS College of Engineering on 8th October 2015 at Library Auditorium. The workshop was attended by 12 faculty and 123 students from Electrical cluster, chemical, CS & IS departments participated in the workshop.

The workshop was conducted by Dr James Conrad, Professor, Electrical and Computer Engineering, UNC Charlotte. The workshop started with the basic definition of embedded system, its benefits, attributes of embedded systems. Engineers of different disciplines involved in developing the embedded systems were explained in detail. Later, Dr James gave an overview the projects carried out by him and his team. He also covered current embedded design development, embedded design process, investigating embedded system etc. He shared the available on embedded systems.

Examples of Embedded Systems and the subsystem organization structure for a simple mobile phone were covered in detail.

Coordinators: Dr Rajeshwari Hegde & Prof. P S Gowra , TE

Regional level Project Contest- “PRAKALPA”

18th January, 2016



Participants Statistics:

Students: 70

Workshop Brief:

A regional level project contest called “Prakalpa” was held at BMSCE, Bangalore On 18th, January 2016 on UTLP (unified technology learning platform) organized by Wipro Technologies and hosted by BMS College of Engineering. The event is supported by TQIP-II (IIC) for 70 students from various colleges like BMSCE, PESIT, Bangalore, SIT, Tumkur, Shreenivas college of engineering, Mangalore, NMAMIT, Nitte, PICT, Pune, BITM, Ballary ,SAIT, Bangalore including faculty attended the program.

Coordinators: Prof. Prasanna Kumar M K, Dept. of TE, Prof. Soniya agrawal, Dept. of EE

Wireless System Design-Going beyond Simulation

10th May, 2016



Participants Statistics:

Faculty: 12

Workshop Brief:

Mathworks organized Hands on Training on, 'Wireless System Design: Going Beyond Simulation', from 9:30am to 1:00 pm. The experts from Mathworks, who handled the session are: Dr Amod Anand Kumar, Senior Application Engineer – Signal Processing & Communications, Dr Tabrez Khan, Senior Application Engineer, and Dr Viju Ravichandran, Education Technical Evangelist.

Dr Amod Anand Kumar, Senior Application Engineer from Math Works focused on modeling and simulating LTE and WLAN, Antenna to bit simulation, over the air testing and prototyping. It is learnt that with Phased array System tool box, Phased array beam can be analyzed. End to end System can be designed using LTE System tool box, WLAN system tool box. Antenna tool box helps in antenna to bit- simulation and phased array beam forming. System objects concepts were introduced for the block level representation of the algorithm with hands-on session with the RTL SDR hardware.

Coordinators: Dr B Kanmani & Prof. Archana K , Asst. Professor, TE

Unified Technology Learning Platform (UTLP)

17th - 31st May, 2016



Participants Statistics:

Students: 35

Workshop Brief:

Departments of TCE and EEE jointly organized a two weeks value added course on Unified Technology Learning Platform (UTLP) through Project Based Learning from May 17th to May 31st , 2016, for students of 4th semester, to introduce project based learning and accomplish deep learning, communication skill and team work. This value added course is an activity under PROPEL LAB-5. Prasanna Kumar M.K, TCE and Soniya Agrawal, EEE, have handled all the sessions of the Value added program. This program introduces project based learning to accomplish deep learning, communication skill and team work. Which include following topics C programming, Eclipse, UTLP, Programming, LED, LCD and GLCD, Programming Touch panel, CVS (Concurrent version system), Mini projects/demo

Coordinators: Prof. Prasanna Kumar M.K, TE & Prof. Soniya Agrawal, EEE

HAM hands on training on FM receiver

21st May, 2016



Participants Statistics:

Faculty: 2

Students: 10

Workshop Brief:

On 21.05.2016, Hands on training was organized by the Telecommunication department on **'FM/AM Receiver'**. The one day training was conducted by three eminent individuals who are licensed HAM radio operators. Mr.Madhu Prasad, Head of Corporate affairs, SAB Miller, Mr.Rakesh(1BM07TE045), and Mr.Ganguly briefed about building FM Receiver Based on CXA 1619 one chip FM/AM radio IC. It supports various functions like RF amplifier, Mixer and OSC(incorporating AFC variable capacitor), IF amplifier, Quadrature detection, Tuning LED driver ,AM section, RF amplifier, Mixer and OSC (with RF AGC), IF amplifier (with IF AGC), Detector, Tuning LED driver, AF section, Electronic volume control. During this training, all participants were provided with the circuit details along with the components and PCB designed board to rig up the circuit. During first half of the session students built audio amplifier

Coordinators: Prof. Ambika K & Prof. Archana K, TE

MyRIO & Quanser Qubes for Control System

30th - 31st May, 2016



Participants Statistics:

Students: 7

Faculty: 5

Workshop Brief:

Departments of TE organized a two days hands-on training on MyRIO and Quanser Qubes for Control Systems from 30th to 31st May, 2016, by Amal K Sebastian, NI for students and faculty, to introduce use of Labview for basic Programming, Interface My Rio Embedded Board and conduction of experiments on real time signal in HIL simulation using Labview followed by Interface Quanser kit through My Rio and conduct experiments on practical control systems such as DC motor control, Inverted pendulum system

Coordinators: Prof. T Anushalalitha & Prof. Manjunath P S, Asst Professor, TE