

Workshops Organized

Sl.No	Title of Workshop	Date(s)	Funding Agency	Participants
1	GUI building using Matlab	21 st October, 2016	Math Works. Maitreyee & BMSCE	6 faculty 60 Students
2	GUI building using App Designer	28 th October , 2016	Math Works. Maitreyee & BMSCE	3 faculty 45 Students
3	Basic Working of Arduino and it's peripherals	20 th January, 2017	Free	2 faculty 60 Students
4	Control Systems in Cube Servo using Matlab/Simulink	22 nd March, 2017	BMSCE, Edutech	10 faculty
5	Applications of Signal Processing using MATLAB	19 th -23 rd June, 2017	--	29 Students

WORKSHOP ON GUI BUILDING USING MATLAB

21st October, 2016



Participants Statistics

Faculty: 06

Students: 60

Workshop Brief

The hands on session were conducted by Mr. Viju Ravichandran (Ph.D.), Education Technical Evangelist, Math Works, Bangalore and Ms. Maitreyee, Application Engineer, Math Works, Bangalore. This event was part of industry-institute interaction.

The workshop focused on implementing project works, theoretical concepts on a user interface known as GUI with the help of Matlab Tool. GUI helps in implementing the project with more user interaction. Some of the topics of workshop are as follows. Need for user interface, Layers of application, Guide tool, Call back to functions, Function handlers. Few hands on experiments were conducted on developing graphical user interface.

Outcome of the Workshop

1. Exposure to GUI in project implementation with more user interactions.
2. Ability to design experiments using modern engineering tool: Matlab
3. Hands on experiments to learn GUI better

Coordinator: Dr B Kanmani

WORKSHOP ON GUI BUILDING USING APP DESIGNER IN MATLAB

28th October, 2016



Participants Statistics

Faculty: 03

Students: 45

Workshop Brief

The hands on session were conducted by Mr. Viju Ravichandran (Ph.D.), Education Technical Evangelist, Math Works, Bangalore and Ms. Maitreyee, Application Engineer, Math Works, Bangalore. This event was part of industry-institute interaction.

The workshop focused on implementing project works, theoretical concepts on a user interface known as GUI with the help of App Designer in Matlab 2016. GUI helps in implementing the project with more user interaction. Some of the topics of workshop are as follows. Creating new apps, callbacks in app designing, design view and code view, update functions, component library, component browser, sharing the app, packaging the app, tool box, MCR-Matlab compiler runtime.

Outcome of the Workshop

1. Exposure to GUI in project implementation with more user interactions.
2. Ability to design experiments using modern engineering tool: Matlab
3. Hands on experiments to learn GUI better
4. App designing

Coordinator: Dr B Kanmani

BASIC WORKING OF ARDUINO AND IT'S PERIPHERALS

20th January, 2017



Participants Statistics: Faculty: 03, Students: 45

Workshop Brief:

The speaker, Kritish Dhariwal started by explaining what Arduino were and what they were made up of. He also mentioned why they could be used as a substitute to various other devices. He went on to elaborate on the ways in which the Arduino board could be powered and programmed. He alerted the students about the necessary precautions they will have to take before powering an arduino board. After mentioning the wide variety of fields that use Arduino, he explained how flexible Arduino were and thus justifying their increasing popularity and usage. In the process, he made the students realize how the innovation in technology is benefitting human kind in more ways than one.

After giving a brief introduction to sensors, he explained the various types of sensors that existed in the market and their functioning. The students were divided into groups of 10 people and each group was given a sensor. The sensors included motion sensor, sound sensor, light sensor etc. They were asked to come up with applications using the sensors that were given. This exercise helped the students think out of the box and let their imagination flow. The different groups came up with innovative ideas using the concept behind those sensors. The working and programming of the sensors was then explained by Kritish to each group. He also guided the students on how they could implement their ideas and convert them into projects.

Overall, it was a highly educative session. It forced the students to think differently and made them realize there was still so much scope for innovation and improvement.

Coordinator: Dr Rajeshwari Hegde

CONTROL SYSTEMS IN QUBE SERVO WITH MATALB/SIMULINK

22nd March, 2017

The poster is for a one-day Faculty Development Program (FDP) on Control Systems in Qube Servo with Matlab/Simulink. It is organized by BMS College of Engineering, Bengaluru, Department of Telecommunication Engg., in collaboration with Edutech. The event is scheduled for 22-March-2017, from 9:00AM to 5:00PM, at the Computer lab, Dept. of Telecommunication Engg. The program covers several topics and lab exercises, including Introduction, Hardware integration, Filtering, Rapid Controls Prototyping, Modeling, Stability Analysis, and PID Control. The poster also lists the coordinators: Manjunath P.S. and Dr. Rajeshwari M. Hegde.

Topic Covered

- Introduction
- Lab Exercises
 - Lab 1: Hardware intergration
 - Lab 2: Filtering

Coffee Break

- Rapid Controls Prototyping
- Lab Exercises
 - Lab 1: Sampling rate
 - Lab 2: Data logging

Modeling

- Lab Exercises
 - Lab 1: Model Matching
 - Lab 2: First principles modeling

Lunch Break

Stability Analysis

- Lab Exercises
 - Lab 1: DC motor BIBO stability from step
 - Lab 2: DC motor BIBO stability from impulse

Tea Break

- PID Control
- Lab Exercises
 - Lab 1: PID Tuning
- PID Control Designing
- Lab Exercises
 - Lab 2: Simulate PV Control
 - Lab 3: Implement PV Control

Advanced Control

Session End

Coordinator, Manjunath.P.S. HOD,TCE Dr.Rajeshwari M.Hegde



Participants Statistics:

Faculty: 12

Workshop Brief:

The sessions were handled by Mr. JayaMurugan from Edutech, Chennai. Theory and lab sessions on using Qube Servo with Matlab/Simulink were attended by faculty from different departments of BMSCE. FDP covered following topics Hardware-in loop, Position control, Integration, Filtering, Modeling First Order System and comparison with real time system , Stability Analysis, PD control

Coordinators: Manjunath P S , T Anusha Lalitha

ONE WEEK WORKSHOP ON APPLICATIONS OF SIGNAL PROCESSING USING MATLAB

19th to 23rd June, 2017



Participants Statistics: Students: 29

Workshop Brief:

The workshop was planned during the semester break for second and third year students with an intention for MATLAB code to be applied for signal processing and also biomedical applications and accomplish deep learning, communication skills and team work. The workshop introduced the participants to the tools and enabled them to continue use this tool further during their engineering program. The participants were also introduced to the basics of GUI.

Sequence of activities conducted during workshop

Day -I 19/6/2017	Introduction to MATLAB Recording voice and finding frequency range Basics of DTMF
Day-II 20/6/2017	Basics of Spectrogram Important functions in Image processing
Day-III 21/6/2017	Applications of DSP in Biological Signal Analysis Sampling of signals
Day-IV 22/6/2017	Project Work
Day-V 23/06/2017	DSP Processor

Hands on experience on MATLAB with respect to applications of signal processing

Coordinator: Prasanna Kumar M K