

Report on

Five-days Faculty Development Program (Hybrid Mode) on

“MATLAB Toolbox for IOT Application Development”

26.09.2022 to 30.09.22



Submitted by: Dr. Soumya Ranjan Mahapatro, Associate Professor, Dept. of ECE, Department of Electronics and Communication Engineering

REPORT RECEIVED ON 07.10.2022

No. of Participants – 30

Resource person: Mr. J Prem Kumar, is presently working as a Product Manager for MathWorks Products in Capricot Technologies Private Limited and specializes in the field of Dynamic System Modelling, Embedded Systems, Robotics, Image Processing, Speech Processing, Deep Learning and Computer Vision. He has around 10 years of experience in Capricot Technologies. Prior to joining Capricot Technologies, he has experience in Semiconductor Manufacturing Industry. He holds a Master Degree in VLSI System Design.

The Department of Electronics and Communication Engineering, MITS, Madanapalle organized a Five days’ FDP program (hybrid mode) on MATLAB Toolbox for IOT Application Development during 26/Sept/2022 to 30/Sept/2022. In this FDP Mr. J Prem Kumar was enlightened with the fundamentals of MATLAB and Simulink along with IOT application development using MATLAB and SIMULINK. All session was very informative. More than one hundred students have registered for this workshop from different institutions across India.

Date:- 26/09/2022	Topic
10:00AM to 12:30PM	<ul style="list-style-type: none"> • Introduction to Artificial Neural Network • Data availability and Pre-processing • Artificial Neural Network Architecture • Training and Validation • Engineering Applications of Artificial Neural Network
2:00PM to 4:30PM	Hands-On

Title: Reinforcement Learning Tool Box and Hands on

Date:- 27/09/2022	Topic
10:00AM to 12:30PM	<ul style="list-style-type: none"> • Introduction to Reinforcement Learning • MATLAB based Reinforcement Learning • Simulink based Reinforcement Learning • Engineering Applications of Reinforcement Learning
2:00PM to 4:30PM	Hands-On

Title: Internet of Things and use of Thing Speak using MATLAB and Simulink

Date:- 28/09/2022	Topic
10:00AM to 12:30PM	<ul style="list-style-type: none"> • Introduction to Internet of Things • Introduction to Thing Speak • MATLAB for IOT Applications • Simulink for IOT Applications • Accessing Thing Speak Data
2:00PM to 4:30PM	Hands-On

Title: Design, train and analyse deep learning networks using Deep Learning Toolbox

Date:- 29/09/2022	Topic
10:00AM to 12:30PM	<ul style="list-style-type: none"> • Introduction to Deep Learning Toolbox • Introduction to Convolutional Neural Network • Data Accessing and Pre-processing • Constructing Deep Learning Architecture from scratch • Training and Analysing Deep Learning Networks • Engineering Applications of Deep Learning
2:00PM to 4:30PM	Hands-On

Title: Introduction to Computer Vision Toolbox with IOT in MATLAB

Date:- 30/09/2022	Topic
10:00AM to 12:30PM	<ul style="list-style-type: none"> • Introduction to Deep Learning Toolbox • Introduction to Convolutional Neural Network • Data Accessing and Pre-processing • Constructing Deep Learning Architecture from scratch • Training and Analysing Deep Learning Networks • Engineering Applications of Deep Learning
2:00PM to 4:30PM	Hands-On

