

A Report of one day Professional Development Program on
“Hands on Training on MATLAB”

1.	Name of the Activity/Event	PDP Program on “Hands on Training on MATLAB”	
2.	Dates of Activity/Event	17-04-2021	
3.	Organized by/Name of the committee	Department of ECE	
4.	Place of Activity/event	DSP Lab, B-Block, NECNellore	
5.	Resource person/guest/organization	S.Ramesh, Mathworks,Hyderabad.	
6.	Timings of Event	09:30AM to 01:00PM 02:00PM to 05:00PM	
7.	Type of activity/Event	Training Program for Lab Technicians	
8.	Activity/Event objectives	Overview of "MATLAB" and its applications towards the implementation of Academic lab experiments and projects	
9.	Participation	Non Teaching Staff	14
10.	General remarks	<ul style="list-style-type: none"> • Installation procedures • Learned about the tool boxes 	
11.	Enclosures	<ol style="list-style-type: none"> 1. Program Snapshots 2. List of Participants 3. Attendance Sheet 	
12.	Signature of Incharge/Convener		

Report

The Narayana Engineering College, Nellore Department of ECE organized a one day PDP Program **“Hands on Training on MATLAB ”** on 17-04-2021 at DSP Lab, B-Block, NEC Nellore.

The goal of this PDP program is to to give lab technicians a basic understanding of MATLAB, including popular toolboxes. The program consists of interactive lectures and sample MATLAB problems that generally they face. Hands-on session helped non-teaching staff with the syntaxes and functions for use in programming. The program helps at various stages in studying subject related to

Processing and analysis during regular subjects throughout courses. No prior programming experience or knowledge of MATLAB is assumed. Concepts covered include basic use, graphical representations and tips for designing and implementing MATLAB code.

In the first session Dr.K.Murali , HOD of ECE addressed the gathering and introduced the resource person S.Ramesh, Mathworks, Hyderabad to the gathering.

Dr. G. Srinivasulu Reddy, Principal had said few words about the importance of Matlab and the use cases of it in the academics.

Later the resource person given the Introduction about the Matlab and its features. He has explained about the advantage of Matlab and its usage in designing the projects.



He also discussed the software tools required for smooth running of the lab. A few example programs also discussed to make the technicians to understand the applications of the Matlab.

In the evening session, Hands on lab was conducted by the resource person. Where he has covered different topics and these are given as a summary.

Executive summary:

Following points were covered with hands on training:

- 1) **Basics of MATLAB:** MATLAB window, basic commands, use of variables with values, arrays, basic trigonometric functions, etc.
- 2) **Function in MATLAB:** defined, declared and used of the user defined functions.
- 3) Plot the graphs for given variable and check given system performance.
- 4) Live Scrip editor: It is used for series of MATLAB commands in a single interactive environment. Rn section in live script, create live script functions, etc. was explained.

- 5) Simulink: It is used to model the system and then simulates the dynamic behavior of the system.
- 6) Hardware support packages: It covered how to install third party hard ware and used for small projects. Camera, ARM, Arduino, Altera, National Instruments, Raspberry Pi, Xilinx, Android, STMicro electronics, Key sight can be connected to MATLAB and through Simulink functionality we can implement good projects. For this Mathwork account is required.
- 7) Machine learning and Artificial intelligence can be used efficiently in MATLAB
- 8) Exporting Script to presentation was also explained.



Finally, The Professional Development Program ended with a vote of thanks.