MATLAB Workshop Report

Patrons:

- Dr. K. G.Narayankhedkar : Director General, MGM Group of Engineering Colleges.
- Dr. S. K.Narayankhedkar : Principal, MGM's College of Engineering &Technology.

Chief Coordinators

- Prof. Shilpa Vijay : Assistant Professor in EXTC department.
- Prof. Jayesh Ruikar: Assistant Professor in EXTC department.

Coordinator:

- Prof. Hema Sable
- Prof. Suraj Sawant

Member:

Prof. Sandip Patil

Prof. Chetan Gawal

Prof. Dayanidhi Paoul

Prof. Priyanka

Preface:

MATLAB workshop was arranged by Electronics and Telecommunication Engineering department on Saturday, 14th April 2018, in Computation Laboratory for students as well as faculty members of all departments of MGMCET.

Acknowledgement:

Department of EXTC is thankful to Dr. K. G. Narayankhedkar, Director General, MGM Group of Engineering Colleges and Dr. S. K. Narayankhedkar, Principal, MGM's College of Engineering & Technology and fortunate enough to get encouragement, support, and guidance for conducting MATLAB workshop in MGMCET. We are thankful to all faculty members participated for successful completion of this workshop. We all heartily thankful to all faculty members who are directly and indirectly help us to complete this workshop. We are also thankful to all students for their keen interest shown in this workshop.

Content:

Program: On Saturday, 14th April 2018, MATLAB workshop was conducted in Computational Laboratory of EXTC department.

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 behaviour of the system. Control system tools were used to simulate simple PID feedback control system.

6) **Hardware support packages:** It coved how to install third party hardware and used for small projects. Camera, ARM, Arduino, Altera, National Instruments, Raspberry Pi, Xilinx, Android, STMicroelectronics, Keysight 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.

Introduction:

Objectives:

9. Detailed Report with Photographs

10.   Conclusions of the Workshop

11.   List of participants

12.   List of Guest Speakers and Speakers with their CV and

        Photograph

13.   Feedback of the Participants

14.   Receipts and Expenditure Statement

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The speaker **Mr. Yaser Arafat Kazi** who is Application Engineer-Mathworks Product in the company DesignTech Systems Ltd, started the session at 10.00 am.

Following points were covered:-

9) **Basics of MATLAB :** MATLAB window, basic commands, use of variables with values, arrays, basic trigonometric functions, etc.

10) **Function in MATLAB:** defined, declared and used of the user defined functions.

11) **Plot the graphs** for given variable and check given system performance.

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14) **Hardware support packages:** It coved how to install third party hardware and used for small projects. Camera, ARM, Arduino, Altera, National Instruments, Raspberry Pi, Xilinx, Android, STMicroelectronics, Keysight can be connected to MATLAB and through Simulink functionality we can implement good projects. For this Mathwork account is required.

15) **Machine learning and Artificial intelligence** can be used efficiently in MATLAB

16) **Exporting Script to presentation** was also explained.

MATLAB workshop was successfully conducted in closed cooperation with all faculty members and students and concluded by 4pm.It was highly informative for both students and faculty and everybody liked and appreciated it.

Glimpse of MATLAB workshop:
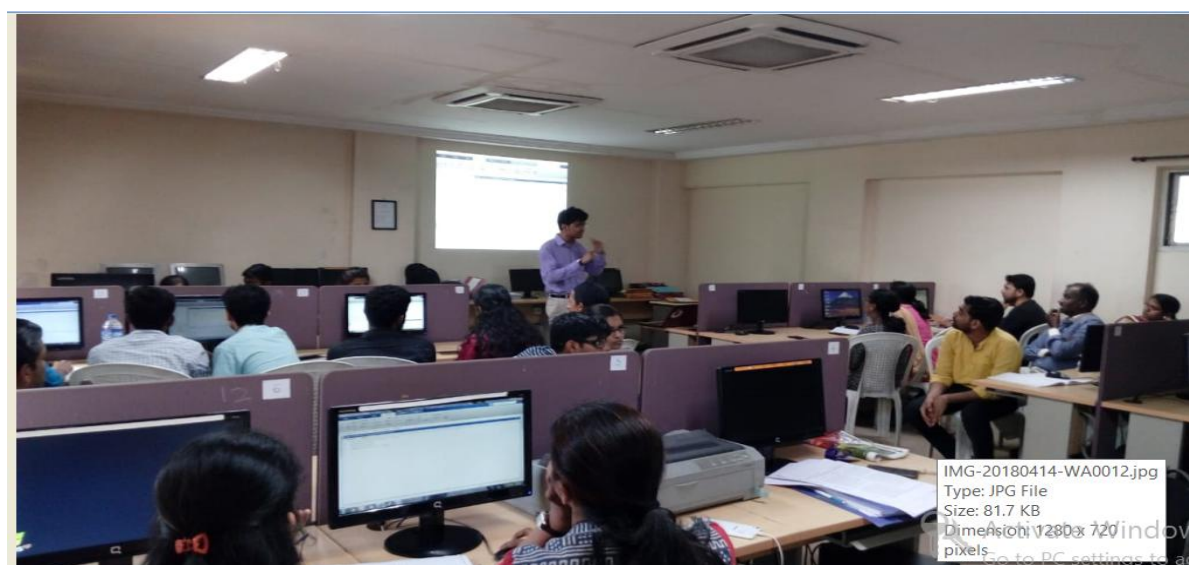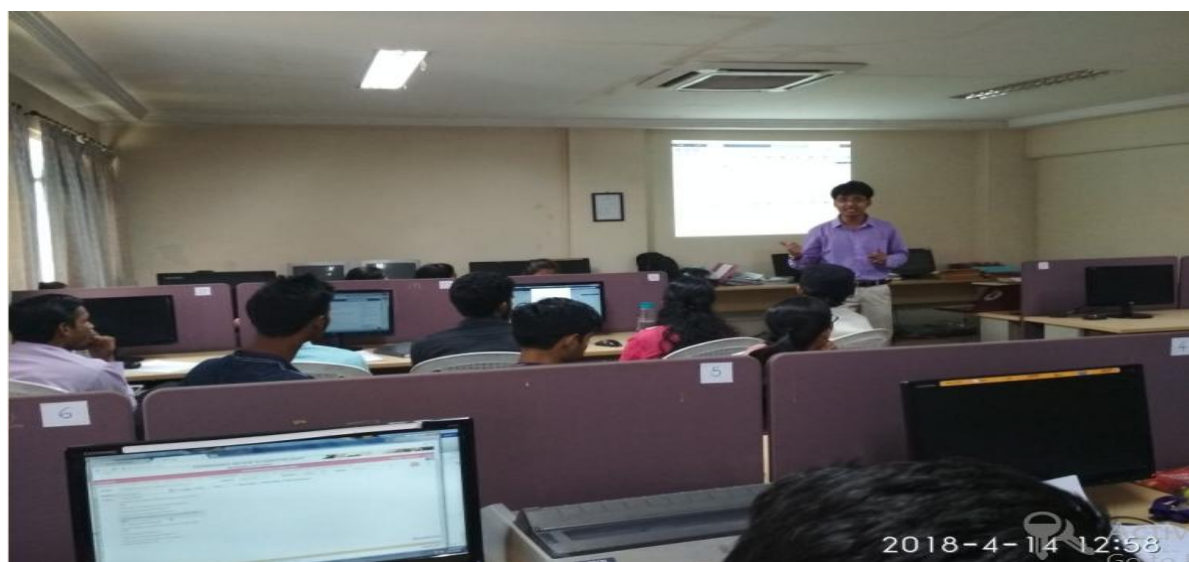
Thanks to HoD and all faculty members for supporting the event and making it successful.