

MATLAB & Simulink Seminar

Respected All,

We hope you are doing well.

Management of Information and Educational Technology Services (**MIETS**) in collaboration with the College of Engineering (**COE**) would like to invite Effat Faculty and Students to attend **Matlab & Simulink Seminar**.

The seminar showcases how to bridge the gap between theory and practice when it comes to using **MATLAB** and it will include technical presentations and concrete examples.

By attending **Matlab & Simulink Seminar**, you will learn how to program and build models with the **MATLAB** product family.

You will also gain valuable experience in **MATLAB**, which is among the top required skills listed in engineering and science job postings



Matlab & Simulink Seminar



Date: 4th Oct. 18

Venue: COB 313

2 VP for Student
Attendance

[Registration](#)

Time	Title
09:00	Registration
09:30	Introduction - MathWorks Resources for Educators & Students MATLAB Academy – Courseware – MATLAB Grader - MATLAB Online - MATLAB Mobile - File Exchange
10:00	Real-time prototyping of DSP algorithms on live real-world audio and visual signals Abstract Across both research and teaching, digital signal processing projects often require implementing algorithms in real time and running them on live real-world signals for testing and validation, proof-of-concept demonstrations, more impactful dissemination of results, or more effective learning. Signal processing teachers and researchers are generally very familiar with MATLAB for algorithm exploration. This presentation will use practical and reproducible examples to illustrate how to quickly turn theory and algorithms into engaging real-time system prototypes. Topics <ul style="list-style-type: none">• Leverage popular DSP algorithms, including for computer vision and audio applications• Connect MATLAB and Simulink to live sensors and signal sources like sound cards and video cameras• Make your MATLAB code ready for real-time prototyping

	<ul style="list-style-type: none"> • Run algorithms and models on mobile devices and external embedded platforms
11:30	Break
12:30	<p>Engineering system design with MATLAB and Simulink</p> <p>In this seminar, we will demonstrate how to use MATLAB and Simulink to address modeling, design and simulation of dynamic engineering systems. Specifically, we will go through practical examples to illustrate the entire workflow from mathematical formulation, down to analytical/numerical solving, system modeling and simulation, and implementation on embedded hardware like Arduino.</p> <p>Topics</p> <ul style="list-style-type: none"> • Mathematical modelling of dynamic systems • Analytical and numerical system solving • Building and simulating engineering models • Working with sensors and components (microcontrollers, motors, encoders, etc.) • Automatic code generation for embedding algorithms onto hardware
14:00	Q&A
14:30	End of Seminar