



Signal Processing with MATLAB – A Hands-On Workshop

Signal Processing plays a vital role in everyday life. It finds applications in many areas. This one-day workshop will provide a hands-on introduction to signal processing using MATLAB.

COURSE OBJECTIVE

On the successful completion of this course, the participants should be able to

- use MATLAB to represent signals and systems,
- use MATLAB to perform time-domain and frequency-domain analysis,
- use MATLAB to design linear filters,
- use the signal processing GUIs available in MATLAB, and
- use the signal processing blockset.

COURSE OUTLINE

1. Introduction
2. Representation of Signals
3. Representation of Systems (Filters)
4. Time-Domain Analysis
5. Frequency Domain Analysis
6. Filter Design
7. Graphical User Interface
8. Signal Processing Blockset

TARGET AUDIENCE

undergraduate and postgraduate students,
academicians and researchers,
engineers and scientists

VENUE

Control Systems Laboratory,
College of Engineering,
Universiti Tenaga Nasional,
Putrajaya Campus

DATE

Thursday April 12, 2012

REGISTRATION

Contact: mypsoc@ieee.org

Deadline: Thursday April 05, 2012

FEEES

IEEE Member	RM 500
Non-IEEE Member	RM 600
Students (IEEE Member)	RM 400
Students (Non-IEEE Member)	RM 450

*Course materials will be provided
Certificate from IEEE Signal Processing Society Malaysia Section
Morning/afternoon refreshments and lunch included*

SPEAKERS PROFILE

Syed Khaleel Ahmed is a senior lecturer in the Department of Electronics and Communication Engineering at Universiti Tenaga Nasional (UNITEN), Putrajaya campus. He obtained his B.E. in Electrical and Electronics Engineering from the College of Engineering, Guindy, Anna University, Chennai, India, and his M.S. in Electrical and Computer Engineering from the University of Massachusetts at Amherst, USA. His experience spans over 20 years in industry and academia.

His industrial experience includes stints at Thermax Limited, Pune, India, and Quantum Corp., Shrewsbury, Massachusetts. His M.S. thesis was on the design of *Robust Controllers for Flexible Structures*. This was part of a project funded by NASA through Martin Marietta. At Quantum Corporation, he worked on servo control for hard disk drives. One of the projects he completed at Quantum, *Designing a Control Systems Measurement Utility*, was adopted as a standard. An earlier project on *system identification using MATLAB* in both the time-domain and the frequency-domain was accepted and successfully used by Quantum control system engineers.

At UNITEN, he has worked on several projects, both funded and unfunded. He has over 30 publications in the last 3 years. He has also conducted several workshops for participants from industry and academia on topics in *Control Systems, Signal Processing, and Numerical Techniques* including using MATLAB/SIMULINK for implementing these. Currently he is the *Head* of the Center for Signal Processing and Control Systems (*C-SPaCS*).

His areas of specialization and interest are *Robust Control, Fuzzy Logic and Control, Algorithms, Signal & Image Processing, and Numerical Techniques*. He is also interested and active in promoting open source software, especially L^AT_EX for professional document preparation and publishing.

He is the vice president of the IEEE Control Systems Society (CSS) Malaysia Section, the secretary of the IEEE Education Society Malaysia Section, and an executive committee member of the IEEE Signal Processing Society Malaysia Section. He is also a member of International Association of Computer Science and Information Technology (IACSIT), Singapore, International Association of Engineers (IAENG), Hong Kong, and Indian Society of Technical Education (ISTE), India.

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