

LEARN MATLAB AND SIMULINK IN FIVE WEEKS

PC-MICROCONTROLLER INTERFACING, CONTROL ENGINEERING AND IMAGE PROCESSING USING MATLAB/SIMULINK

Introduction

MATLAB is one of the most popular numerical computing environment and programming language used for research and development mostly in engineering and sciences both in academia and industry world wide. This course is a joint venture between **Rastek Technologies** and **Star Engineering** and is designed for students and practicing engineers who desire to use MATLAB to supplement their studies, project-work or research. It will make the participants confident to use this powerful tool and further explore it independently. It shall also be helpful for individuals aspiring to undertake MS or PhD studies. Training sessions shall be conducted at Rastek Technologies and will cover lectures along with hands-on practice in a multimedia and air-conditioned environment.

Course Contents

- Basic introduction, features and toolboxes.
- Array, strings and logical operations.
- Control flow, matrix computations, plotting, M-files and writing functions.
- Hardware interfacing using serial communication.
 - Serial Port overview, pin assignments and data format.
 - Defining serial port object and communication configuration.
 - Reading and writing data between PC and the 89C51 microcontroller.
- Development of Graphical User Interface (GUI).
- Examples in control systems and Image processing.
- SIMULINK basics, creating a model, working with block sets.
- Simulation of first and second order control systems.

Venue

Rastek Technologies, C-15, Classic Center, Block-16, Gulshan-e-Iqbal, Main University Road, Karachi.

Instructor

The course shall be conducted by **Mr. A. Fawad** who is currently a final year PhD student at the **Nanyang Technological University Singapore**. Mr. A. Fawad has several international publications and has around 12 years of experience that spans teaching, research and the industry. He holds MS (Controls) from UNSW, Australia and BE (Industrial Electronics) from IIEE, Karachi.

Course Commencement, Timings and Duration

14 January 2008, 3pm to 5pm OR 7pm to 9pm, 20 HOURS (4 HOURS/WEEK).

Course Fee

Rs. 3500/- (SPECIAL INTRODUCTORY OFFER)

Registration

Desiring individuals can register at either Rastek Technologies or Star Engineering.

1. Rastek Technologies, C-15, Classic Centre, Block-16, near Hassan Centre, Main University Road, Karachi. Ph: 111-727-835. Email: imranhassan@rastek.com (Reg. Time: Monday-Saturday between 10am to 5pm)
2. Star Engineering, House No: A-395, Block 9, F.B. Area, Yasinabad, Karachi. Ph: 4242284. Email: star@star-engg.com (Reg. Time: Monday-Saturday between 3pm to 8pm)