



Over view of training:

We are focusing on enhancing the core hardware knowledge to the electrical students and professionals to develop the opportunity for future development.

Methodology and highlights:

- 1.Training would be based on the real time scenarios
- 2.Hands on training with an arduino kit.
- 3.Based on the requirement of industry.

Training materials:

- 1.TEDPRO course e-book

Curriculum:

1.MATLAB (25 hours) fee-7500

- Introduction to MATLAB
- Real time simulation
- Basics of power electronic and powers system design
- Basics of coding.

2.ARUDINO (25 hours) fee-7500

- Introduction to an ARUDINO
- Basic programming
- Types of Signal generation
- Lab session

Arudino basics overreview

What is an arudino???

A micro-controller is a small computer on a single integrated circuit containing a processor core, memory, and programmable input/output peripherals where arudino not a microcontroller:

- Founded by Massimo Banzi and David Cuartielles in 2005
- Based on “Wiring Platform”, which dates to 2003
- Open-source hardware platform
- Open source development environment
 - Easy-to learn language and libraries (based on Wiring language)
 - Integrated development environment (based on Processing programming environment)
 - Available for Windows / Mac / Linux

Application

robots

Servomotor control

Led control

Drives control

Pwm generation etc and so on....



Matlab overview

MATLAB (an abbreviation of **MA**Trix **LAB**oratory) basics

The software is widely used in many of science and engineering fields. MATLAB is an interactive program for numerical computation and data visualization. MATLAB is supported on Unix, Macintosh and Windows environments. For more information on MATLAB, contact **The MathWorks.Com**. A Windows version of MATLAB is assumed here.

The syntax is very similar for the DOS version.

MATLAB integrates mathematical computing, visualization, and a powerful language to provide a flexible environment for technical computing. The open architecture makes it easy to use MATLAB and its companion products to explore data, create algorithms and create custom tools, that provide early insights and competitive advantages.

Known for its highly optimized matrix and vector calculations, MATLAB offers an intuitive language for expressing problems and their solutions both mathematically and visually. Typical uses include:

- ☐ Numeric computation and algorithm development.
- ☐ Symbolic computation (with the built-in Symbolic Math functions).
- ☐ Modeling, simulation and prototyping.
- ☐ Data analysis and signal processing.

□ Engineering graphics and scientific visualization.