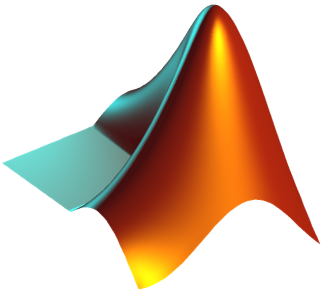
TRAINING PROGRAM



MATLAB

MATLAB (matrix laboratory) is a multi-paradigm numerical computing environment and proprietary programming language developed by MathWorks. MATLAB allows matrix manipulations, plotting of functions and data, implementation of algorithms, the creation of user interfaces, and interfacing with programs written in other languages.

KEY FEATURES

Effective Upskilling Planned Curriculum
Team Learning Awesome Quizzes
Complete Hands on

The below Curriculum is Scheduled for 2 weeks

CURRICULUM

Module 1.Theory
1.1. Introduction of MATLAB
1.2. Applications of MATLAB
1.3. Merits and demerits of MATLAB
1.4. Lab - MATLAB basics.

Module 2. Theory
2.1. Power Electronics
2.2. Uncontrollable/Controllable Converters
2.3. Various PWM Techniques
2.4. PWM/SPWM/SVPWM/DPWM/GDPWM
2.5. Multilevel Inverters
2.6. Harmonics, Active/Passive Filters
2.7. DC to DC converters (Buck/Buck Boost/Cuk/Sepic).
2.8. Lab - Power Electronics converters Design.
Inverter circuits.
Three- phase Rectifiers Circuits
Inverters using PWM technique

Module 3. Theory
3.1. MATLAB User Interface
3.2. Power-GUI interfacing.
3.3. Block interfacing.
3.4. THD values calculations.
3.5. Lab - Power-GUI block explanations

Module 4. Theory
4.1. Power Systems
4.2. Generation/Transmission/Distribution/Protection
4.3. HVAC/HVDC
4.4. Distributed Generation
4.5. Time& frequency testing in PS
4.6. Lab - Low frequency switching
Transient & linear analysis circuit.
Electrical Drives/Machines
Basic Concepts of Motor
AC/DC motors

Module 5. Theory
5.1. Modelling of Induction Motors
5.2. Electrical Drives.
5.3. Various speed controlling techniques of AC/DC motors.
5.4. Lab - DC motor construction

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