

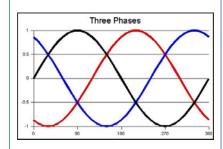
## **Industrial Power Systems**

Power System Planning, Analysis, Generation Plants, Transformers, LV/MV Switchgear, Distribution, Power Cables, Protection, UPS's, Harmonics, Grounding and Control



## Full Accreditation Awarded to Najah Engineering Consultants LLC









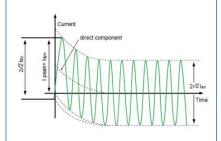






IEC 60034, IEC 60038, IEC 60255 IEC-60947, IEC-60529, IEC 60076, IEC 60044, IEC 62271, IEC 60439, IEEE 551, IEEE 399, NFPA 70, NFPA 110









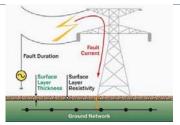
## **COURSE CONTENTS**

- The industrial power system components from generation plants to loads
- Power system parameters and engineering criteria
- Single line diagram and power system design to IEEE/IEC
- Generation power plants, steam, gas and diesel
- AC Generators excitation control
- AC Motors & Drives
- Power Transformers design and operation
- Transmission Systems design and control parameters
- Sub-stations design and operation
- Distribution Systems and load centers
- Power system analysis and per unit system
- Short circuit calculations and fault studies
- Load flow analysis
- Power system protection to IEEE/IEC
- Power cables types, design and sizing
- Grounding of power system, safety and neutral grounding
- Power system harmonics concepts, sources and control
- Power factor correction
- UPS's and emergency power systems





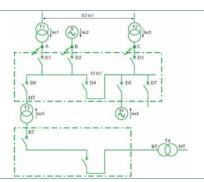


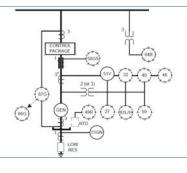














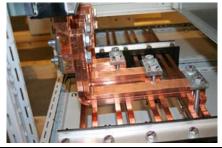
## **COURSE INFORMATION**

Timing	08:30 – 16:00 hrs daily
Lunch	Buffet lunch at 13:30 hrs daily
Coffee Breaks	10:00 – 10:15 and 11:45 – 12:00 hrs
Instructor	Mohammad Abdulgader
Course Hours	30 hours over 20 sessions, each session 1.5 hours = Five (5) Days
Certificate	Course attendance certificate will be issued to all participants who attend at least 75% of the sessions





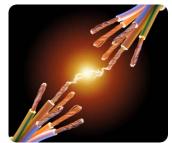


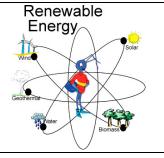














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