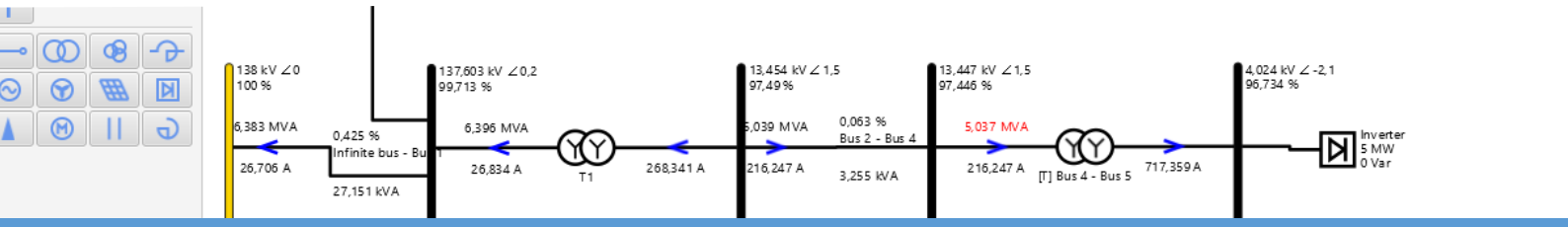

Power network modeling and analysis with software (Level 1)

EA-PSM Electric Academy

Electrical engineers are seeking to assure network reliability, safety and reduce losses. These criteria should be assured with an appropriate network design. During the seminar engineers will learn how to properly maintain and design electric power networks and as a result avoid common problems and identify potential sources of losses. EA-PSM Electric Academy is practical workshop during which you will do calculations yourself with a supervision of experienced lector and will have opportunity to implement gathered knowledge on your projects.

Special offer:

- Bring your project, make calculations with EA-PSM Electric and get insights where are the biggest loses, how to increase reliability and safety of the network.

Detail 2 day training program:

1st day, 8 hours

Create your network single-line diagram with EA-PSM Electric

- Install EA-PSM Electric in your computer.
- Create single-line diagram.

Power flows in electrical power systems with cogeneration and renewable energy power plants

- Power quality standard requirements for grid voltage characteristics.
- Power grid state analysis after the connection of new load or power source.
- System with an operating reserve state analysis after the unexpected disconnection of a feeder.
- Analysis of transformer operation under maximum loading conditions.
- Tap changing transformers.
- Overhead lines and cables sizing, to meet techno-economic requirements.
- Voltage drop calculation.
- Equipment sizing and assessment of their loading conditions.

Operation states of electric motors and higher harmonics analysis in electrical systems

- Influence of motor start-up currents on the electrical network stability.
- Reactive power compensation with electric motors and sizing of reactive power compensation devices.
- Electric motors operation with variable frequency drives (VFD).
- Assessment of voltage distortion level conducted by higher harmonics in electrical network.
- Selection of VFD with lower and higher harmonics.
- Higher harmonics filtering.
- Resonant conditions for higher harmonics in networks with reactive power compensation capacitors.

2nd day, 8 hours

Short circuits and equipment sizing

- Power grid parameters that are important for short circuit calculation.
- Short circuit current from power grid.
- Short circuit current from synchronous generator.
- Short circuit current from induction motor.
- Short circuit current from renewable energy power plants.
- Asymmetrical short circuits.
- Phase-to-phase short circuits in 0.4kV power systems.
- Phase-to-neutral short circuits in systems with isolated neutral.

0.4 kV - 35 kV networks protection coordination

- Low voltage fuses selection.
- Low voltage breakers selection and coordination.
- Coordination of fuses and breakers tripping curves.
- Characteristics of maximum short circuit current protection devices in medium voltage networks.
- Protection equipment against maximum short circuit currents settings calculation and sensitivity assessment.
- Protection equipment against phase-to-neutral short circuits settings calculation and coordination.

Who should attend this seminar?

- Design engineers
- Maintenance and design engineers
- Consultants on energy efficiency

What you'll learn?

- Design engineers will learn how to finish more projects with greater quality and avoid common mistakes.
- Maintenance engineers will learn how to optimize their existing networks, in order to reduce power losses and increase network reliability. Also to base energy saving opportunities on the techno-economic analysis.
- Consultants will learn how to find and estimate saving opportunities in electrical network.

Additional information:

- During this workshop participant will solve real cases with the software EA-PSM Electric.
- Software EA-PSM Electric will be installed in your computer.
- Every participant should bring his PC.
- Small groups (up to ten).

Time: 28th and 29th of January 2019 (From 9 a.m. to 5 p.m.)

Registration ends: 21st of January 2019.

Price: 490 EUR, register till 7th of January 2019 and get 15% discount. Second booking charged at full published rate minus 50%.

Place: İstanbul, more information you'll get after registration.

Contact us:
UAB Energy Advice
Phone: +370 635 16380
E-mail: info@energyadvice.lt
Skype: energy.advice