

## **EC 1: POWER NETWORKS ELEMENTS**

Chairman: dr Vladimir ŠILJKUT, JP Elektroprivreda Srbije

1. Modern constructions and application of new technical solutions of power distribution networks elements
2. Testing, monitoring, diagnostics and maintenance strategy of power distribution networks elements
3. Modeling and application of modern software tools for the analysis of power distribution networks elements
4. Environmental impact of power distribution networks elements
5. Technical regulations in the field of power distribution networks elements

## **EC 2: POWER QUALITY IN DISTRIBUTION SYSTEMS**

Chairman: Prof. dr Vladimir KATIĆ, Faculty of technical sciences in Novi Sad

1. Power quality of energy supply (voltage quality) – sources, spreading, immunity, mitigation, experiences, etc.
2. Devices and methods for power quality measurement and monitoring (diagnostic methods, equipment, procedures, etc.)
3. National and European power quality legislations and recommendations (standards, technical guidelines, regulations, procedures, etc.)
4. Integration rules for nonlinear loads and distributed generators
5. Effects of poor power quality on load and distributed generators operation (technical problems, efficiency, reliability, costs, customer relations, etc.)
6. Electromagnetic compatibility, security and interference
7. Overvoltage and overvoltage protection in distribution networks, effects of poor grounding on power quality, and other related topics

### **EC 3: PROTECTION AND OPERATION OF THE ELECTRIC NETWORK**

Chairman: Dušan Vukotić, M.Sc.E.E., DSO "EPS Distribution"

#### **OPERATION**

1. Maintenance strategies and condition assessment.
2. Workforce management tools and techniques to improve operation efficiency.
3. Data demand, data management and documentation.
4. Restoration strategies and crisis management.
5. Operation of industry grids.

#### **PROTECTION**

6. The strategies during replacing SCADA systems, reconstruction of the protections and implementation of the substation automation systems.
7. Impact of Distributed Generation ("DG") on traditional protection and control systems.
8. New protection schemes and functions for up-to-date grid structures.
9. Protection simulation models, tools and new functions.
10. Reliability aspects of IEC 61850 based protection.
11. Testing of protection relays, functions and systems.
12. Post mortem analyses of faults and fault records.

#### **OPERATION AND COMMUNICATION**

13. The automation of electric distribution networks.
14. The electric distribution network control in a market driven environment.
15. The usage of energy application within electric utilities.
16. Providing system services on distribution level.
17. Voltage control in MV and LV grids.
18. The usage of communication systems for protection and network operation.
19. Security aspects of information access and information exchange.
20. Communication techniques and protocols for "Smart Grids" and "Smart Metering".
21. Interdependency of network control and communication infrastructure.

#### **EC 4: DISTRIBUTED PRODUCTION AND EFFICIENT USE OF POWER**

Chairman: dr Željko POPOVIĆ, Faculty of technical sciences in Novi Sad

1. Integration of distributed energy resources (DER) in distribution networks
  - a. Active distribution network management in the presence of DERs
  - b. DER forecasting
  - c. Hosting capacity analysis in distribution networks
  - d. Micro-grids
  - e. Electrical vehicles
2. Demand response
3. Efficient usage of electrical energy
4. Smart metering and advanced metering infrastructure (AMI)

#### **EC 5: DISTRIBUTION SYSTEMS PLANNING**

Chairman: dr Aleksandar JANJIĆ, Electronic faculty in Nis

##### **LOAD FORECASTING**

1. Load characteristics of particular consumer categories
2. Impact of microgeneration on long-term forecasting of load and consumption
3. Methods for predicting loads in small areas

##### **NETWORK STRUCTURES AND PLANNING CRITERIA**

4. Increasing the reliability of the distribution network
5. Structures of networks for accepting distributed production
6. Impact of new ICT technologies on network structure
7. Distribution System Planning Criteria
8. Technical parameters related to planning

##### **DEVELOPMENT PLANNING, INVESTMENTS**

9. Preparation of system development and construction plans, risk analysis
10. Organizational and financial factors in making plans
11. Investment in replacement of worn out equipment

12. Optimization methods in planning
13. "Benchmarking" of operator work in the system planning process

## **EC 6: DEREGULATION, OPEN MARKET AND UTILIZATION OF ELECTRICITY**

Chairman: dr Nenad Katić, University of Novi Sad

1. Practice and experiences in opening of electricity market and restructuring of electricity sector in the region
2. Practice and experiences in use of new regulation
3. Participants in open electricity market, electricity providers and supply models
4. Distributed Energy Resources in competitive environment of open electricity market