



POWER SYSTEM ENGINEERING

The security of the electricity supply can be negatively affected by energy sources with weather-dependent production and power electronic circuits connected to the electric grid. Power fluctuations, as well as electric grid feedback, occur primarily with renewable energy sources, certain electrical machines and drives and electric vehicles, so their study has become a central theme.

COMPETENCIES

- Efficiency of electricity production
- Concept of power system engineering
- Electrical machines and drives
- Electric vehicles
- Electrical protections
- Power electronics converters
- Power system engineering measurements



SERVICES

- Investigation of energy and environmental efficiency of energy production
- Brake bench measurement of mini engines
- Investigation of electrical machines and drives
- Investigation of power electronic converters (e.g. inverters)
- Development of a power system engineering concept
- Investigation of electrical protection and electric grids
- Creating simulations



TOOLS

- Test bench for mini engines
- System for measuring the mechanical characteristics of electric motors
- Portable electric grid analyser
- Circuit tester
- Software package for design and simulation of electric grid



REFERENCES

- ELMŰ Hálózati Kft.: Development of the concept of Energy Park and Educational Path
- Olp-Tech Kft.: Novelty testing of a new type of electric generator and recording of its characteristic curve
- Olp-Tech Kft.: Recording the mechanical characteristic curve of a mini engine, investigating its operation