

Power Systems

Main research lines

Condition monitoring and fault diagnosis:

- Power electronic converters
- AC drives
- Power transformers

Fault tolerance:

- Power electronic converters
- AC motor drives
- AC generators

Digital control:

- Control of electric drives
- Advanced signal processing techniques

Electric vehicles technologies:

- Inductive (cordless) charging
- New traction systems
- Energy storage and management

Renewable energies:

- Real-time diagnostic systems
- Power quality
- Power flow control and energy management

LED lighting systems (indoor & outdoor):

- LED control strategies
- LED drivers reliability

Main innovation and achievements



Isolated DC-DC converter



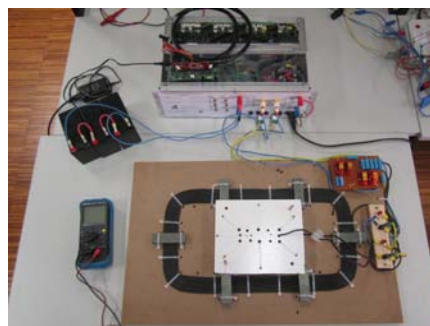
PV panel with tracker



Real-time diagnostic system for wind generator



UPS with 3-level power converters



Cordless energy transfer



Fault diagnosis in electric machines



Signal processing techniques