



**European Association for the
Development of Renewable Energies,
Environment and Power Quality**

INTERNATIONAL CONFERENCE ON RENEWABLE ENERGIES AND POWER QUALITY (ICREPQ'12)

Santiago de Compostela
28-30 March 2012

OBJECTIVES

The intention of the organisers is to give an opportunity to academics, scientists, engineers, manufacturers and users from all over the world to come together in a pleasant location to discuss recent development in the areas of Renewable Energies and Power Quality.

TOPICS

RENEWABLE ENERGIES

Topics included, but are not limited to:

- Wind Energy, Small Hydro Energy, Solar Energy, Photovoltaic Energy, Ocean Energy, Geothermal, Biomass,...
- Classical and special electrical generators: Theory, design, analysis, losses, efficiency, heating and cooling, vibration and noise, modelling and simulation, control strategies, protection systems, maintenance, mechanical behaviour, new methods of testing, parallel operation, stability,...
- Power plants. Distributed generation. Fuel cells. Co-generation. Hybrid Systems. Original solutions,...
- Energy conversion, conservation and energy efficiency.
- Energy saving policy. Energy storage. Batteries,...
- Energy and the environment. Ecological balance. Ecosystem,...
- Application of the renewable energy. Best practice projects.
- Legislation in the area of renewable energies.
- Biomass combustion techniques. The energy use of agricultural and forest residues. Production and the energy exploitation of bio-gas. Environment. Social importance...
- Interconnection and transport problems.
- Planning and control of the power system take into account the renewable energy. Stability. Protection...
- Economic analysis of the power system take into account the renewable energy.
- Regulation/des-regulation of the power market. Influence of the renewable energy.
- Models and simulation of the power systems. Models and estimation of loads. Software tools.
- Application of the telecommunications, internet, artificial intelligence for the renewable energy.
- Security assessment and risk analysis in renewable energy
- Technical and economic issues of the large-scale integration of renewable energies
- Recent advances in transmission technologies (AC and DC)
- Electric vehicles.
- Power electronics. Control strategies.
- Sensors and actuators.
- Renewable Energies Teaching

POWER QUALITY

Topics include, but are not limited to:

- Electromagnetic compatibility (EMC)
- Power Quality in Transport and Distribution.
- Economic Studies of the Power Quality
- Low-frequency conducted disturbances: Voltage deviations, voltage fluctuations/flicker, voltage dips and short interruptions, harmonics and inter-harmonics, transient over-voltages, voltage unbalance (imbalance), temporary power-frequency variations.
- Sources, effects and mitigation methods of the disturbances.
- Measurements of the power quality in networks, industrial installations and Laboratories. Equipment, procedures and measurement methods. Standards.
- Modelling and simulation of the power quality. Software tools.
- Transmission of the disturbances
- Filtering techniques
- Power factor compensation. Capacitor switching techniques
- Optimization techniques
- Telecommunication, internet and artificial intelligence.
- Permanent monitoring techniques and online diagnosis
- Intelligent energy delivery systems. Uninterrupted power supplies
- Expert systems applications
- Devices, equipment and power systems. Control centres
- Specific problems and studies cases
- Power quality influence in deregulated markets
- High frequency disturbances (radiated)
- Data security and electromagnetic pulses.
- Protection against natural and intentional EMI