

# 20<sup>th</sup> INTERNATIONAL CONFERENCE ON RENEWABLE ENERGIES AND POWER QUALITY (ICREPQ'22)

## CALL FOR PAPERS

27, 28 and 29 of July, 2022

Vigo (Spain)

University of Vigo. School of Industrial Engineering



### ORGANISED BY:

- European Association for the Development of Renewable Energies, Environment and Power Quality (EA4EPQ)
- University of Vigo
- AEDIE



### PAPERS

All the papers presented in the conference, face-to-face or on-line, oral or like poster, will be included in the USB Memory with ISBN, in the EA4EPQ-database of the web site and the high quality research papers can be selected for the open access journal: *Renewable Energy and Power Quality Journal (RE&PQJ)* with

the ISSN: 2172-038X, with DOI and indexed by SCOPUS. For the 20<sup>th</sup> ICREPQ edition we will prepare one Special Issue with a selection of the best papers and also one Special Committee will select the best papers for one of the ICREPQ Books.

### CONFERENCE LANGUAGE

The Conference language is English. All papers and presentations should be made in English.

### OBJETIVES AND TOPICS

The intention of the organizers 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.

#### 1. RENEWABLE ENERGY:

##### Topics include, but are not limited to:

- Wind Energy, Small Hydro Energy, Solar Energy, Photovoltaic Energy, Ocean Energy, Geothermal, Biomass, Cogeneration,...
- 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, transmission system, stability,...
- Power plants. Distributed generation. Co-generation. Hybrid Systems. Micro-grids. Smart grids. Original solutions,...
- Energy conversion, conservation and energy efficiency.
- Energy saving policy. Energy storage. Fuel cells. Batteries....
- Energy and the environment. Ecological balance. Ecosystem,...
- Application of the renewable energy. Best practice projects.
- Energy markets: Operation, specificity, regulation...
- 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. Energy and Social Development. Life Cycle Assessment Approach.....
- 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.
- Electricity Market Structures. 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 communications, internet, artificial intelligence for the renewable energy.
- Security assessment and risk analysis in renewable energy.
- Electric vehicles.

- The impact of the electric cars on the electric grid.
- Electrical Machines & Drives, Power electronics and Control strategies for renewable energy applications.
- Monitoring and Diagnostics of electrical machines & drives, Tools for Diagnostics, Test for Predictive Maintenance in Renewable...
- Sensors and actuators for renewable energy applications.
- Renewable Energies Teaching and Learning.

#### 2. POWER QUALITY:

##### Topics include, but are not limited to:

- Electromagnetic compatibility (EMC).
- Power Quality in Transport and Distribution. FACTS
- 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.
- Communication, 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 centers.
- 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.

### IMPORTANT DEADLINES:

- **Submissions due: March 1, 2022**
- **Notification of acceptance: April 1, 2022**
- **Registration, full payment and final paper due: May 22, 2022**

(\*). Submit your extended abstract or provisional full paper of 4 to 6 double columns pages, in Word or Adobe Acrobat (.pdf), with the title of the paper, authors, your complete contact information and electronic address, five key words, interest of the work, objectives, main contributions and the four most important references at: [icrepq@icrepq.com](mailto:icrepq@icrepq.com), [donsion@icrepq.com](mailto:donsion@icrepq.com) Every paper will be evaluated (in a peer review mode) by the International Scientific Committee members.

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**STRUCTURE.** The ICREPQ'22 will be structured, mainly in-person (face-to-face), but also on-line, in:

**-Plenary Sessions** (keynotes): in one room for all the participants.

**-Oral Sessions:** Renewable Energy and Power Quality topics

**-Posters Sessions:** In 45-minute periods.

## SOCIAL EVENTS

**- Civic Special Reception: 27<sup>th</sup> of July**

**- Conference Special Dinner: 28<sup>th</sup> of July**

**- Cultural Visits: 27<sup>th</sup>, 28<sup>th</sup> and 29<sup>th</sup> of July**

## VENUE.

The "**20<sup>th</sup> International Conference on Renewable Energies and Power Quality (ICREPQ'22)**" will be held at the University of Vigo. School of Industrial Engineering. Spain.

## REGISTRATION

The conference registration fee for all the participants covers full attendance at the conference, the presentation of one paper, the documentation of the conference, the lunches during the three days, the coffee breaks, the Civic Reception and the three Cultural Visits. The registration for guests accompanying conference participants includes the same that for the other participants, but not cover the documentation of the conference.

CONCEPT	IN-PERSON		ON-LINE	
	Before May 22, 2022	After May 22, 2022	Before May 22, 2022	After May 22, 2022
Authors/Participants	€ 485	€ 515	€ 455	€ 485
Students (*)	€ 435	€ 465	€ 395	€ 425
Second paper	€ 170	€ 185	€ 170	€ 185
Third paper	€ 150	€ 165	€ 150	€ 165
Accompanying Conference Participants	€ 390	€ 395	-	-
Conference Dinner (Optional)	€ 70	€ 80	-	-
Vigo Cultural Visit (27 <sup>th</sup> )	€ 00	€ 00	-	-
Baiona Cultural Visit (28 <sup>th</sup> )	€ 00	€ 00	-	-
Santiago Cultural Visit (29 <sup>th</sup> **)	€ 00	€ 00	-	-

We consider to all the participants like a Temporary Members of the EA4EPQ Association, Agreement of EA4EPQ General Meeting of March

12<sup>th</sup>, 2009, and then in accordance with the Law 37/1992 and the Royal Decree 1624/1992, Ministry of Finance letter of 7 May 2003 for EA4EPQ members, they do not pay taxes.

(\*) For PhD of MS students it is necessary to provide, at the ICREPQ'22 Secretariat a Faculty or Department document that justify the student condition.

(\*\*) The Excursion to Santiago de Compostela, that will take place on Friday July 29<sup>th</sup>, in **Jacobean Holy Year**, will include the transportation, visit to the Cathedral and other monuments of Santiago. The interested people only need to send us a message.

**IMPORTANT:** Please send to the International Secretariat the ICREPQ-Registration-Form with the correct information for to make the invoice: name, company, address, TAX number (or passport number) and if you make a bank transfer, please fill up the sheet putting always your name and the reference(s) of your paper(s). You can pay also directly by credit card. All the information is in the web page: [www.icrepq.com/registration.htm](http://www.icrepq.com/registration.htm) Please put the reference of your paper(s) in all the correspondence.

**Payment:** Directly by credit card or transferring the registration fees to the AEDERMACP (EA4EPQ) Bank Account. Number: 2080 5142 84 3040003295; IBAN ES95 2080 5142 84 3040003295. BIC (SWIFT): CAGLES MMXXX. Name of the bank: ABANCA. Bank Office: Av. Castelao, 79, 36209 VIGO (Spain).

**Cancellation.** Cancellation refunds, minus handling and administration costs of 10%, will be made by bank transfer for written cancellations received by the Secretariat prior to June 5, 2022. No refunds will be made for cancellations or changes after this date, or if the participant have the invoice requested before, but the documentation of the conference will be mailed.

**Name badge.** An admission badge will be provided to each participant. This badge entitles access to the technical sessions and should be worn through the conference.

For registration, invoices, etc, use the address: [icrepq@icrepq.com](mailto:icrepq@icrepq.com), [icrepq21@icrepq.com](mailto:icrepq21@icrepq.com) or [secretariat@icrepq.com](mailto:secretariat@icrepq.com)

## INTERNATIONAL SECRETARIAT

The International Secretariat of **ICREPQ'22**, for send the digests, full papers, and for all concerning with authors and their works, is:

### ICREPQ

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