



**41. International CIGRE Symposium**

# Call for Papers

## Reshaping the Electric Power System Infrastructure Ljubljana, Slovenia, June 1 – 4, 2021

Participating Study committees are: **A1** Rotating electrical machines, **A2** Power transformers and reactors, **A3** Transmission and distribution equipment, **B1** Insulated cables, **B2** Overhead lines, **B3** Substations and electrical installations, **B4** DC systems and power electronics, **B5** Protection and automation, **C3** Power system environmental performance, **D1** Materials and emerging test techniques

### SYMPOSIUM THEME

The symposium focuses on the future transformation of the electric power sector, the new framework of generation, transmission, distribution, and demand side. These changes will require new technologies, renewal of equipment and infrastructure for the electricity supply industry, and increased interactions with researchers and the public. The changes on development and operation of the future electric power sector are expected to be amongst the most serious in the entire history of the electric power system.

The Symposium will be oriented on new methods, technologies, materials, and examples related to research of electric power industry equipment and infrastructure, involving generators, power transformers, transmission and distribution equipment, various technologies for cables, overhead lines, substations, protection, automation, and testing techniques.

**This symposium will be held 100 years after establishing the international technical organization of CIGRE and 40 years after the first CIGRE symposium.**

CIGRE International Symposium 2021 invites power system experts, academicians, engineers, policy makers, and other stakeholders to send original synopses in accordance with the given format. The conference will be held **1–4 June 2021** in Ljubljana, Slovenia, in the heart of Europe under the theme “Reshaping the Electric Power System Infrastructure”.

### SYMPOSIUM VENUE

Slovenia is located in central Europe neighboring Italy on west, Austria on north, Hungary on northeast and Croatia on east and south. The capital of Slovenia is Ljubljana, historic city going back to Roman times, when *Emona* – first name of Ljubljana was established. The symposium venue will be in **Cankarjev dom Congress and Cultural Centre of Ljubljana**, which is one of Slovenia’s busiest conferencing and expos hubs Congress Center.

*Cankarjev dom* means *Home of Cankar*, which was named after renowned Slovenian writer Ivan Cankar and is in the city centre on southern edge of Republic square. (Cankarjev dom, Prešernova cesta 10, Ljubljana, [www.cd-cc.si/en](http://www.cd-cc.si/en)).



*Old Town of Ljubljana and Ljubljana Castle*

### SYMPOSIUM PROGRAM

June 1, 2021 (Tuesday)	Morning  Afternoon Evening	<b>Tutorials (10)</b> , Opening of Exhibition <b>Panel on History of electricity</b> Organ Recital, Cultural event Welcome Reception
June 2, 2021 (Wednesday)	Morning Afternoon Evening	Opening ceremony, Sessions and Exhibition <b>Gala Dinner</b>
June 3, 2021 (Thursday)	Morning Afternoon	Sessions and Exhibition Closing session
June 4, 2021 (Friday)	All Day	<b>Technical Tour</b> (two options)

**First day** (Tuesday) of the programme starts with 10 CIGRE Tutorials. Attendance will be included in the conference fee. In the afternoon you are invited to attend a special panel on **History of electricity** dedicated to the 100<sup>th</sup> Anniversary of CIGRE concluding with organ recital on one of the largest European organ instruments. In the evening you are invited to join the Welcome Reception Cocktail with special cultural programme which will also take place at Cankar Centre.

**Second day** (Wednesday) starts with the **Opening ceremony** and continues with oral presentations of all accepted paper presentations, parallel in three halls. In the evening you are invited to join the **Gala Dinner** with live music performance and mouth-watering Slovenian cuisine.

**Third day** (Thursday) continues with technical sessions and finishes with closing session in the late afternoon.

On the **fourth day** (Friday) we will take you around Slovenia on two **technical tour** options.

## PREFERENTIAL SUBJECTS

### PS1 Structural changes of existing equipment and infrastructure

- Increased capacity by upgrading existing equipment and infrastructure.
- Standardization.
- Needs of new design of equipment and infrastructure.
- Technologies of end to end networks (LV to UHV) including micro-grids and super-grids.
- Optimal voltages of equipment for renewables.
- Decarbonisation of network equipment and infrastructure.

### PS2 New equipment and infrastructure

- Interconnections between regions and countries.
- Generation, transmission, energy storage.
- Renewable energy, distribution.
- Use of Process Bus including Low Power Instrument Transformers and evolutions of Protection Automation and Control Systems.
- Environmental impact on future design (visual, audible noise, Electro Magnetic Compatibility, etc.)
- New materials for equipment (nano technology, High Temperature Superconducting, ceramic, etc.)

### PS3 Security of the network

- Climate change impact on equipment and infrastructure (icing, fire, wind, floods, landslides, etc.)
- Physical security, safety.
- Cyber security.
- Solutions for protection in the low inertia grids.

Please visit our symposium website [cigre-symposium2021-ljubljana.si](http://cigre-symposium2021-ljubljana.si), where you can find more information about the symposium and also templates for **uploading your synopses** at [cigre-symposium2021-ljubljana.si/call-for-papers/](http://cigre-symposium2021-ljubljana.si/call-for-papers/).

Please note, that authors should be available to present their papers at the Symposium. All synopses, papers, and presentations must be in English.

**Portal for online submission** of synopses and papers can be reached at [conftool.com/cigreLjubljana2021/](http://conftool.com/cigreLjubljana2021/).

This jubilee CIGRE Symposium offers opportunities for Exhibition of your products and services. You can also opt for different sponsorship packages (Gala Dinner, Lunches, Breaks, Welcome Reception...). All details about exhibition and sponsorship are at mentioned Symposium website <https://cigre-symposium2021-ljubljana.si/how-to-become-a-sponsor/>.

## DEADLINES AND SUBMISSION

**Receipt of Synopsis:** 16 October 2020  
**Notification of acceptance:** 20 November 2020  
**Receipt of full paper:** 26 February 2021  
**Notification of final acceptance:** 16 April 2021

**SUBMISSION PORTAL:** [conftool.com/cigreLjubljana2021/](http://conftool.com/cigreLjubljana2021/)

## REGISTRATION

The registrations will open in September 2020 on ConfTool website: [conftool.com/cigreLjubljana2021/](http://conftool.com/cigreLjubljana2021/).

## COMMITTEES

### Steering Committee:

**Krešimir Bakič**, *President of Symposium*

#### Members:

**Marcio Szechtman**, *TC CIGRE, chairman*

**Philippe Adam**, *CIGRE, Secretary General*

**Marko Hrast**, *NC CIGRE chair*

**Rannveig S. J. Løken**, *Chairman Technical Com.*

**Herbert Lugschitz**, *Vice-chair of Technical Com.*

### Technical Committee:

**Rannveig S. J. Løken**, *Chair of Technical Committee*

(Chair of SC B5 – Protection and Automation)

**Herbert Lugschitz**, *Vice-Chair of Technical Committee*

(Chair of SC B2 – Overhead lines)

#### Members:

**Nicolas W. Smit**, (Actual Chair of SC A1 – Rotating electrical machines)

**Kevin Mayor** (Incoming Chair of SC A1)

**Simon Ryder**, (Actual Chair of SC A2 – Power transformers and reactors)

**Pascal Müller**, (Incoming Chair of SC A2)

**Nenad Uzelac**, (Chair of SC A3 – Transmission and distribution equipment)

**Marco Marelli**, (Chair of SC B1 – Insulated cables)

**Koji Kawakita**, (Chair of SC B3 – Substations and electrical installations)

**Mohamed Rashwan**, (Actual Chair of SC B4 – DC systems and power electronics)

**Joanne Hu**, (Incoming Chair of SC B4)

**Henk Sanders**, (Actual Chair of SC C3 – Power system environmental performance)

**Flavia Serran**, (Incoming Chair of SC C3)

**Ralf Pietsch**, (Chair of SC D1 – Materials and emerging test techniques)

### Local Organizing Committee:

**Krešimir Bakič**, Chair

**Marko Hrast**, Vice-Chair

#### Members:

**Ivan Zagožen** (SC A1)

**Tim Gradnik** (SC A2)

**Maks Babuder** (SC A3)

**Simon Podkoritnik** (SC A3)

**Viktor Lovrenčič** (SC B2)

**Tadeja Babnik** (SC B5)

**Janez Zakonjšek** (SC B5)

**Uroš Kerin** (SC B4)

**Aleš Kregar** (SC C3)

**Boris Žitnik** (NC CIGRE Chair of Technical body)

**Ales Peršin** (Symposium Marketing Manager)

**Barbara Kozamernik** (Admin, General organization)

**Leon Maruša** (Admin, NC CIGRE Slovenia Gen. Secretary)



**TECHNICAL TOUR**

**Option 1:** Hydro Pump Storage Plant (200 MW) with wine tasting in the largest wine cellar in Slovenia, Dobrovo – Goriška Brda (Northwestern Slovenia).



*Hydro pump storage plant AVČE on the river SOČA*



*Wine cellar DOBROVO – Goriška Brda.*

**Option 2:** Nuclear Power Plant Krško (with simulator), lunch and wine tasting at view restaurant called “Three lights” (Southeastern Slovenia)



*Nuclear Power Plant (NPP) Krško*



*Simulator at NPP Krško*

**COMPANION TOURS – All day tours**

Lake BLED and Ski jumping hill and Nordic park PLANICA	June 1, 2021 (Tuesday)
POSTOJNA Cave and “Predjama Castle”	June 2, 2020 (Wednesday)
Resort city of PIRAN at Adriatic Coast and Salt pans Secovlje	June 3, 2021 (Thursday)



*Lake BLED with a castle*



*Resort city of Piran at the Adriatic Coast*



*Postojna Cave*



*Predjama Castle*