Reshaping the Electric Power System Infrastructure
Ljubljana, Slovenia, November 21 – 24, 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 oriental 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 21–24 November 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-ccsi.si).

**SYMPOSIUM PROGRAM**

<table>
<thead>
<tr>
<th>Date</th>
<th>Session</th>
<th>Morning</th>
<th>Afternoon</th>
<th>Evening</th>
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<tbody>
<tr>
<td>November 1, 2021</td>
<td>Opening ceremony</td>
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<td>November 2, 2021</td>
<td>Organ Recital</td>
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<tr>
<td>November 3, 2021</td>
<td>Closing session</td>
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<tr>
<td>November 4, 2021</td>
<td>Gala Dinner</td>
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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 100th 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.
- Contribution of equipment and infrastructure to increase the grid resilience.

Please visit our symposium website 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/.

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/.

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 (extended):** 31 October 2020
- **Notification of acceptance (ext.):** 1 December 2020
- **Receipt of full paper:** 26 February 2021
- **Notification of final acceptance:** 16 April 2021

**SUBMISSION PORTAL:** conftool.com/cigreljubljana2021/

### REGISTRATION

The registrations will open in September 2020 on ConFtool website: conftool.com/cigreljubljana2021/

### COMMITTEES

#### Steering Committee:
Krešimir Bakić, President of Symposium

**Members:**
- Marcio Szechman, TC CIGRE, chairman
- Philippe Adam, CIGRE, Secretary General
- Marko Hrast, NC CIGRE chair
- Rannevig S. J. Laken, Chairman Technical Com.
- Herbert Lugschitz, Vice-chair of Technical Com.

#### Technical Committee:
Rannevig S. J. Laken, Chair of Technical Committee
(Chair of SC B3 – Protection and Automation)
- Herbert Lugschitz, Vice-Chair of Technical Committee
  (Chair of SC B2 – Overhead lines)

**Members:**
- Kevin Mayor, (Chair of SC A1 – Rotating electrical machines)
- Pascal Müller, (Chair of SC A2 – Power transformers and reactors)
- 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)
- Joanne Hu, (Chair of SC B4 – DC systems and power electronics)
- Flavia Serran, (Chair of SC C3 – Power system environmental performance)
- Ralf Pietsch, (Chair of SC D1 – Materials and emerging test techniques)

#### Local Organizing Committee:
Krešimir Bakić, Chair
- Marko Hrast, Vice-Chair

**Members:**
- Ivan Zagožen (SC A1)
- Tim Gradnik (SC A2)
- Maks Babušek (SC A3)
- Simon Podkorotnik (SC A3)
- Viktor Lovrenčič (SC B2)
- Tadeja Babnik (SC B5)
- Janez Zakonšek (SC B5)
- Uroš Kerin (SC B4)
- Aleš Kregar (SC C3)
- Boris Žičnik (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).

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

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**COMPANION TOURS – All day tours**

<table>
<thead>
<tr>
<th>Destination</th>
<th>Date</th>
<th>Day</th>
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<tbody>
<tr>
<td>Lake BLED and Ski jumping hill and Nordic park PLANICA</td>
<td>November 1, 2021</td>
<td>Tuesday</td>
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<tr>
<td>POSTOJNA Cave and “Predjama Castle”</td>
<td>November 2, 2020</td>
<td>Wednesday</td>
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<tr>
<td>Resort city of PIRAN at Adriatic Coast and Salt pans Secovlje</td>
<td>November 3, 2021</td>
<td>Thursday</td>
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**Images:**

- Hydro pump storage plant AVCE on the river SOČA
- Wine cellar DOBROVO – Goriška Brda.
- Nuclear Power Plant (NPP) Krško
- Simulator at NPP Krško
- Postojna Cave
- Predjama Castle
- Lake BLED with a castle
- Resort city of Piran at the Adriatic Coast