

***Cigre Study Committee B5
Annual Meeting and
Colloquium***

Bulletin 4

***Final Program
CIGRE Tromsø 2019***

***Tromsø
NORWAY***

24th – 28th June 2019

The Norwegian National Committee (NONC) of CIGRE welcomes Study Committee B5 (Protection and Automation) to hold its 2019 Annual Meeting and associated Colloquium in Tromsø, Norway between 24th – 28th June 2019.

The Venue

Clarion Hotel The Edge in Tromsø has been chosen as the venue for both the Study Committee annual meeting and the Colloquium. This venue has very suitable meeting, conference rooms to host business events and accommodation. It is also close to other high-quality hotel and accommodation options.

The Programme

Sunday 23 June 2019

Whole day: Working Group (WG) meetings (optional)

Monday 24 June 2019

Morning: Tutorial Advisory Group (TAG) meeting

Whole day: Registration of delegates

Whole day: Working Group (WG) meetings

Afternoon: Thematic Group meetings (TM)

Tuesday 25 June 2019

Morning: Strategic Advisory Group (SAG) meeting

Whole day: Registration of delegates

Whole day: Working Group (WG) meetings

Whole day: Submission and discussion of prepared contributions to the Colloquium (SR)

Afternoon: Poster Session

Evening: Welcome Cocktail at "Rorbua"

Wednesday 26 June 2019

Morning: Tutorials:

1. Impact of geomagnetic storms on protection

2. Precision Time Protocol PTP

Afternoon: Colloquium PS1 - Leveraging PMU data for better Protection, Automation and Control systems

Evening: Colloquium Dinner at Clarion Hotel the Edge

Thursday 27 June 2019

Morning: Key note: An Electric future – what does it take?

Morning: Colloquium PS2 - Time in Protection Applications – Time sources and distribution Methods

Afternoon: Colloquium PS3 - Future technologies for inter-substation communication, Migrating Digital Teleprotection Channels to Packet-Based Networks

Evening: Barbecue Dinner (Offsite: Sommarøy. Not included in the registration fee)

Friday 28 June 2019

Whole day: Study Committee annual meeting

Evening: Study Committee Dinner at Villmarkssenteret

The Colloquium

The Colloquium will be held in the Business conference centre facility at Clarion Hotel The Edge in Tromsø on Wednesday and Thursday, 26th – 27th June 2019.

The preferential subjects for this meeting will be:

PS1 - Leveraging PMU data for better Protection, Automation and Control Systems

- Use of PMU data to improve system models and to monitor analogue inputs
- Adaptive protection concepts utilizing PMU data
- Wide area schemes, novel backup protection, power swing protection, and synchronizing schemes based on PMU data
- Improvements in PACS commissioning and post-event analysis using PMU data

Special Reporter: Rafael Fernandes (BR)

PS2 - Time in Protection Applications – Time sources and distribution Methods

- Sources and distribution of time references in PACS and Wide Area Systems and the related accuracy
- Engineering of time synchronisation and time reference distribution for IEC 61850 process bus based protection and control applications
- Commissioning and testing of time reference sources and distribution means
- Expected behaviour of PACS functions in case of loss and recovery of time synchronisation

Special Reporter: Dr. Yubo Yuan (CN)

PS3 - Future technologies for inter-substation communication, Migrating Digital Teleprotection Channels to Packet-Based Networks

- Migration of Serial Teleprotection Channels to Packet-Based Networks and best practices for specifying, testing, commissioning and monitoring
- Specification of channel or network performance, data transmission and management of constraints for PACS
- Data Segregation including use of virtual networks and WDM (Wavelength-Division Multiplexing) for PACS and performance analysis methods
- Substitution of serial interface: Technologies, topologies, constraints and experience feedback

Special Reporter: Dr. Fred Steinhauser (AT)

The Colloquium Papers

Call for papers

The final date for submission of synopsis was 31 October 2018 (closed).

Acknowledgement of reception

Acceptance of the synopsis was notified to the main author before before November 15, 2018 (closed).

Submission of full papers

The deadline for the receipt of the full papers was 31 January 2019 (closed).

Availability of Papers

Papers for the SC B5 colloquium are available to registered delegates through the colloquium website using the link <https://www.cigreb5tromsoe2019.com/colloquium-papers>.

Special reports

Special reports for the three preferential subjects for the SC B5 colloquium are available on the colloquium website using the link <https://www.cigreb5tromsoe2019.com/special-reports>.

Discussion contributions

All prepared contributions including word and PPT files should be sent to SC B5 Secretary and Special Reporter concerned by emails before **10 June 2019**. Contributors will be required to meet with SC Chairman, Special Reporter and SC Secretary in the SR meeting room on **25 June 2019** to review/discuss their contributions and to agree their time slots.

Spontaneous written contributions are also welcomed. Spontaneous oral contributions are accepted at the Chairman's discretion and depending on available time and degree of delegate reaction

The Tutorial

The tutorial will be held on Wednesday morning, 26 June 2019.

Impact of geomagnetic storms on protection

- Physical Phenomena – Dr. Paal Brekke (NO)
- Impact on Power Systems and Mitigation Techniques – Stein Ingebrigtsen (NO)
- Impact on Instrument Transformers and Protection – Dr. Bogdan Kasztenny (CA)

Precision Time Protocol PTP

- Principles and applications of Precision Time Protocol PTP – Roman Graf (CH)

The Keynote Speech

The Keynote will be held on Thursday morning, 27 June 2019.

An electric future – what does it take?

Speaker: Auke Lont, CEO Statnett SF, Norway

The Poster Session

The authors are encouraged and given the opportunity to display their work in the poster session in the afternoon of Tuesday 25 June 2019.

The poster session is an interesting opportunity both for authors and visitors. Authors can present some details of their papers, while visitors can discuss directly with the authors.

Local printing service will be available. For local printing, the authors can send the final version to the **Event organizer** (mette@xtenso.no) before **1 June 2019**. Posters produced after this date must be printed by the authors themselves and brought to the session. On-site printing service is not available.

Dimensions for poster presentation are A0 Portrait 841mm x 1189mm . Maximum 2 poster pages per paper.

The Study Committee Annual Meeting

The Study Committee B5 annual meeting of Regular Members, Observers and Working Group Convenors will be held on Friday 28 June 2019.

Sponsoring

Companies and organisations are encouraged to sponsor the event. Sponsors will be visible and especially honoured and mentioned at different occasions during the event. Also free registration of delegate(s) are provided for sponsors according to the assigned agreement. Further details regarding sponsor opportunities are available at the conference website www.cigre5tromsoe2019.com

Evening Events

Tuesday 25 June 2019 **18:30-21:00**
Welcome Cocktail and tapas at "Rorbua"

Wednesday 26 June 2019 **19:00-22:30**
CIGRE Colloquium Dinner at the Conference Hotel.

Thursday 27 June 2019 **18:30-23:30**
Barbecue Dinner at Sommarøy (Summer Island).

Friday 28 June 2019 **19:00-22:00**
Study Committee B5 Dinner at Villmarksenteret (Wilderness Centre).

Registration

Registration will start from November 2018 through the conference website. www.cigre5tromsoe2019.com

For CIGRE SCB5 full delegates, the registration fee will include the CIGRE SCB5 conference packet, the participation at the tutorial, the colloquium and the poster session, as well as welcome cocktail on Tuesday, the conference dinner on Wednesday along with lunches and coffee breaks from Tuesday through to Thursday. The barbecue dinner on Thursday will need to be registered separately.

Hotel Accommodation

The preferred hotel accommodation is **Clarion Hotel The Edge**. Agreed discount rates will be available for this hotel when booking through the conference website. We encourage you to do the reservation as soon as possible.

A number of nearby hotels are also available:

- Scandic Ishavshotel
- Radisson Blu

Important Dates

Call for papers	Closed
Final date for submission of Synopsis	Closed
Date for notification of acceptance	Closed
Registration starts	1 November 2018
Final date for receipt of full papers	Closed
Booking of WG meeting room	Closed
Early bird registration deadline	Closed
Final date for special rate for hotel (closed)	Closed
Distribution of papers and special reports	Finished
Final date for submission of poster for reviewing	Closed
Final date for submission of poster for printing	1 June 2019
Receipt of prepared contributions	10 June 2019

Important Addresses

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