



CIGRE SC A2;
SC B2 & SC D1



India

International Tutorials & Colloquium on Latest Trends and Innovations on



- Power Transformers & Reactors
- Overhead Lines; and
- Materials and Emerging Test Techniques

Three International Conferences Organised in Parallel

(Under the aegis of CIGRE SC A2 on Transformers; B2 on Overhead Lines and D1 on Materials)

Tutorials (composite for all the three subjects) : 20 November 2019
Colloquium (independent for all the three subjects) : 21 - 22 November 2019

VENUE : Hotel Le Meridien, Windsor Place, Janpath, New Delhi, India



R.K. Singh

Hon'ble Minister of State (IC)
(Power, New & Renewable Energy) &
Minister of State (Skill Development and
Entrepreneurship)

Shri R.K. Singh

has kindly consented to Inaugurate this
unique International Colloquium
on 21st November 2019 at 9.30 AM

Participating Countries

Australia, Austria, Brazil, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Iceland, India, Italy, Japan, Namibia, Netherlands, Norway, Poland, Portugal, Russia, Serbia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK, USA

Sponsors

Platinum



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INVITATION

The International Council on Large Electric Systems (CIGRE) Paris is a knowledge sharing platform. CIGRE Study Committee A2 (on Transformers & Reactors), Study Committee B2 (on Overhead Lines) and Study Committee D1 (on Materials and Emerging Test Techniques) are holding its annual meetings at New Delhi (India) in Nov. 2019. CIGRE-India is honored to host these meetings at New Delhi during 18-23 Nov. 2019. There will also be composite tutorials for all the three subjects on 20th Nov. 2019 beside independent Colloquium for each subject from 21-22 Nov. 2019, wherein leading experts will share their experiences on latest technologies and developments.

We have pleasure in extending a cordial invitation to individuals and institutions concerned for participating in the above important International Tutorials & Colloquium. We look forward to welcoming you in New Delhi for the above and hope your stay and experience will be a memorable one.



I.S. Jha
President, CIGRE India



Seema Gupta,
Chairperson, CIGRE NSC A2



Anish Anand
Chairman, CIGRE NSC B2



Jithin Sunder
Chairman, CIGRE NSC D1



V.K. Kanjlia
Secretary, CIGRE-India

CIGRE and the Committee for CIGRE-India

The International Council on Large Electric Systems (CIGRE), with its Headquarters at Paris deals in the field of Transmission and Generation. It functions through 16 Study Committees formed for various disciplines of Power Systems. Each Study Committee comprises about 24 experts drawn from various countries. In addition, some more experts are members of the Working Groups/Task Forces formed by these Study Committees. It is a matter of pride that India is represented in all the 16 CIGRE Study Committees as regular observer member.

CIGRE (Paris) has about 14000 members from 100 countries. Wherever there are more than 40 equivalent members in any country a National Committee is formed with the following aims:

- To disseminate the technical information to the members of the national committee.
- To propose papers for presentation at CIGRE sessions
- To encourage membership of CIGRE
- To organize representation in CIGRE session / symposia.

CIGRE (India) is an affiliate of Central Board of Irrigation and Power. It is the Indian National Committee of CIGRE and is a registered society. It co-ordinates the activities of CIGRE in India, through a number of National Study Committees and disseminates the information about the activities of the CIGRE Study Committees and Working Groups to various organization in India. From India there were 827 equivalent members for CIGRE in the year 2018.

About CIGRE SC A2 on Transformers; B2 on Overhead Lines and D1 on Materials

The Study Committees of CIGRE is responsible to facilitate and promote exchange of information and knowledge in their respective field at international level. It add, value to the information and knowledge by means of synthesizing state-of-the-art practices and developing recommendations.

- 1. The scope of the Study Committee A2 on Transformers** covers all kinds of power transformers including industrial, DC converter and phase-shifting transformers; all type of reactors (shunt, series, saturated) transformer components (bushings, tap changers, accessories, etc.)
- 2. The scope of Study Committee B2 on Overhead Lines mainly** covers Conductors, earth wires, optical cables, and their associated insulators, joints, hardware and accessories; towers including accessories; tower foundations and earthing systems. This concerns also methods to increase the ampacity of existing lines, to establish / improve the reliability of existing lines, to ensure environmentally compatible lines and aspects of assessment of lines, methods and new tools
- 3. The Scope of the Study Committee D1 on Materials & Emerging Test Techniques** mainly covers the monitoring and evaluation of new and existing materials for electro technology, diagnostic techniques and related knowledge rules, the emerging technologies which may be expected to have a significant impact on the system in the medium to longterm. Said activities are focused mainly on transmission and distribution but emerging generation technologies are also be specifically considered.

Members for Separate Technical Committees on each subject for SC A2, B2 & D1		
SC A2	SC B2	SC D1
<ul style="list-style-type: none"> Mr. Tim GRADNIK, Secretary SC A2 Prof. Kulkarni, IIT, Mumbai Mr. P. Ramachandran, Adviser ABB Mr. M. Vijayakumar, Adviser Mr. Y.V. Joshi, GETCO Mr. R.K. Tiwari, EX-ED, BHEL 	<ul style="list-style-type: none"> Mr. Wolfgang TROPFAUER, Secretary SC B2 Mr. S.M. Takkalkar, EX-CE, GEB Mr. S.K. Ray Mohapatra, CE, CEA Mr. D.M. Lakhpati, Sterlite Mr. B.B. Shah, Torrent Power Limited Mr. C. Suresh Babu Reddy, L&T 	<ul style="list-style-type: none"> Mr. Johannes SEILER, Secretary, SC D1 Dr. Rathindranath Das, Dr. Joy Thomas, IISc Dr. Sukumar Roy, BHEL Dr. Pradeep Nirgude, CPRI Dr. M. Mohana Rao, BHEL Dr. S. Raghunandan, BHEL Mr. Pradeep, BHEL Dr. P Thomas, CPRI

About the Tutorials & Colloquium

CIGRE India is honored to host the meeting of CIGRE Study Committee A2, B2 & D1 on Transformers, overhead Lines and materials and its respective working Groups in India from 18th to 23rd Nov. 2019. To take advantage of the presence of CIGRE Study Committees, and its working Group members besides other International experts in India, CIGRE-India and Central Board of Irrigation and Power jointly with CIGRE Study Committee A2; B2 & D1 are organizing an International Tutorial and Joint Colloquium on Latest Trends & Innovations in

1. Power Transformers & Reactors;

2. Overhead Lines; and

3. Materials and Emerging Test Techniques

The Tutorials & Colloquium is in conjunction with the meetings of CIGRE Study Committees and its working groups in India from 18th to 23rd Nov. 2019 at **Hotel Le Meridien, Windsor Place, Janpath, New Delhi, India**

Two days International Colloquium on the subjects is scheduled on 21-22 November 2019. The Colloquium is the biennial Technical Discussion Forum of the Study Committee for members, associates and experts of the discipline from the host country (i.e., India in this case). The subject of Tutorials & the Preferential Subjects which are going to be discussed are within the following scope:

TUTORIALS – 20th Nov. 2019 : (Composite for all the Three Subjects)			
No.	Transformers - A2	Overhead Lines - B2	Materials & Emerging Test Techniques – D1
T1	Bushing Failure Mode Analysis - Mr. R.K. Tyagi, GM, POWERGRID	Use of Robotics in Inspection and Maintenance of OHLs – TB 731, 2018 - Ms Céclie Rozé	New Insulating Materials – Dr. Jens Seifert (DE)
T2	Latest Trends/ Advances in Transformer Design by Prof S.V. Kulkarni, IIT, Mumbai	Experience with the Mechanical Performance of Non-Conventional Conductors - TB 695, 2017 - Mr. Pierre van Dyke	Diagnostics Techniques & Emerging Testing Techniques - Mr. Ralf PIETSCH Chairman, CIGRE SC D1
T3	Health Indexing – Ms. Tara-Lee MacArthur	Transmission Line Structures with Fibre Reinforced Polymer - FRP, WG B2.61, 2018 - Mr. Janos Toth	–

Joint Colloquium - 21 - 22 Nov. 2019 : (Independent for Each Subjects)

Preferential Subjects for		
Transformers - A2	Overhead Lines - B2	Materials & Emerging Test Techniques – D1
<p>PS1: Advances in Transformer Design Including New Materials</p> <ul style="list-style-type: none"> Development & application of new materials / insulating liquid Improvement in Transformer Specifications to Enhance Reliability of Design & construction Operational Experience & Advancement in On-Load Tap Changers Including Phase Shifting Transformers <p>Joint Chairmen:</p> <ul style="list-style-type: none"> Mr. Jan Hajek, ABB Sweden Mr. V.K. Lakhiani, India <p>Key Note Speaker:</p> <ul style="list-style-type: none"> Mr. Martin, CE-Design, Siemens 	<p>PS1: Design Optimization and New Lines</p> <ul style="list-style-type: none"> Considerations and design challenges for long OHLs or in exposed regions (multiple load zones, wind, ice, snow, etc.), accessibility, ROW including Minimization of Environmental Impact Modern aspects of line design optimization (deterministic & probabilistic design methods comparison, experiences OHL in difficult corridors (narrow, soil, difficult construction, etc. Special challenges for design, erection and maintenance and solutions for OHL in India and the region <p>Joint Chairmen:</p> <ul style="list-style-type: none"> Mr. Herbert Lugschitz, Chair, CIGRE SC B2 India <p>Key Note Speaker:</p> <ul style="list-style-type: none"> Mr. Wolfgang Troppauer (AT) 	<p>PS 1: Long Term Performance of Insulation Systems (AC and DC)</p> <ul style="list-style-type: none"> AC and DC Gas Insulated lines – new Insulating materials HVDC GIS – type of technologies UHV Composite insulators, insulating rods, Nano composites <p>Joint Chairmen:</p> <ul style="list-style-type: none"> Dr. Ralf Pietsch (DE) Dr. Joy Thomas, IISc, India <p>Key Note Speaker:</p> <ul style="list-style-type: none"> Mr. R.K. Chauhan, Director, Power Grid

<p>PS2 : Quality Assurance & Short Circuit Withstand Capability of Transformers</p> <ul style="list-style-type: none"> Short circuit testing of Power Transformer including failure case studies Alternative to Short circuit testing Quality Control & Factory Acceptance Tests <p>Joint Chairmen:</p> <ul style="list-style-type: none"> Mr. Henk Fonk, Netherland Mr. R.K. Tiwari, BHEL, India <p>Key Note Speaker :</p> <ul style="list-style-type: none"> Mr. P. Ramachandran, India 	<p>PS2: Reliability and Economics, Maintenance</p> <ul style="list-style-type: none"> Selection of reliability level and economics, Inspection and maintenance techniques, ageing (fatigue, corrosion, inadequate design) Aesthetic tower designs <p>Joint Chairmen:</p> <ul style="list-style-type: none"> Mr. Javier Iglesias (ES) India <p>Key Note Speaker:</p> <ul style="list-style-type: none"> Mr. Pierre van Dyke (CA) 	<p>PS 2: Test techniques for UHV including HVDC</p> <ul style="list-style-type: none"> Test circuits and test voltages for HVDC equipment Composite voltage testing for HVDC equipment. Correlation studies among PD measuring techniques Impulse voltage shapes, wet tests, atmospheric correction <p>Joint Chairmen:</p> <ul style="list-style-type: none"> Dr.ReneSmeats, kema Labs Dr.Vasudev, CPRI, India <p>Key Note Speaker:</p> <ul style="list-style-type: none"> Shri Nanda kumar, DG, CPRI
<p>PS3 : Operational Experience in the Field of Transformers</p> <ul style="list-style-type: none"> Advances in Transformer condition monitoring & diagnostics Residual Life Assessment and site repair/refurbishment Economic/Commercial aspect for transformer life cycle management <p>Joint Chairmen:</p> <ul style="list-style-type: none"> Mr. Patrick Pitcher, Hydro Qubec Ms. Aradhana Ray, India <p>Key Note Speaker:</p> <ul style="list-style-type: none"> Mr. B.N.De Bhowmick, POWERGRID 	<p>PS3: New Materials and Products for Use on OHLs, Diagnostics</p> <ul style="list-style-type: none"> Creep and fatigue issues on new conductor types - Mechanical behavior of new bundle configurations Application of new technologies and test procedures Composite materials for structures <p>Joint Chairmen:</p> <ul style="list-style-type: none"> Mr. Vivek Chari (IN) India <p>Key Note Speaker:</p> <ul style="list-style-type: none"> Mr. John McCormack (AU) 	<p>PS 3: Advanced Diagnostic Techniques</p> <ul style="list-style-type: none"> Material ageing assessment and defect detection in UHV composite insulators, Materials of Offshore and subsea application. On-line / off-line monitoring of power equipment. Ageing studies on new insulating materials. New sensors for advanced diagnostics. <p>Joint Chairman:</p> <ul style="list-style-type: none"> From Central or State Utilities/CEA, India

Tentative Programme for International Tutorials & Colloquium

20 th Nov. 2019 0900-1830 hrs	CIGRE Tutorials		SC A2 : Power Transformers & Reactors SC B2 : Overhead Lines and SC D1 : Materials and Emerging Test techniques	
CIGRE Joint Colloquium on Study Committee (SC) A2 ; B2 and D1 (parallel session)				
21 st Nov. 2019 0930-1700 hrs.	Hall 1 Colloquium on CIGRE SC A2 Transformers & Reactors	Hall 2 Colloquium on CIGRE SC B2 Overhead Lines	Hall 3 Colloquium on CIGRE SC D1 Materials & Emerging Test Techniques	
1900 hrs	Gala Dinner and Cultural evening at Hotel Royal Plaza, New Delhi (India)			
22 nd Nov. 2019 0930-1700 hrs	Hall 1 Colloquium on CIGRE SC A2 Transformers & Reactors	Hall 2 Colloquium on CIGRE SC B2 Overhead Lines	Hall 3 Colloquium on CIGRE SC D1 Materials & Emerging Test Techniques	

Who should attend?

Study Committee & Working Groups:

- Participation in the Study Committee/Working Groups Meetings is restricted to its members only. Invitees in the form of observers can also be allowed on specific invitation from Secretary, CIGRE-India with the permission of Chairman of CIGRE Study Committee.

Tutorials & Colloquium:

- Participation in the Tutorials and Colloquium is open on payment of prescribed registration fee.
- The colloquium is meant for transmission and substation engineers, generation engineers, system operators, designers, manufacturers, erection agencies, regulators, research institutions, testing laboratories and universities.
- The colloquium participants will include top international experts in the field. The colloquium will be informative and beneficial for generation, transmission & Distribution companies, system planners, designers, operators, asset owners and managers, equipment developers and manufacturers, research institutions and universities and policy makers and regulators.

- The participants shall have an excellent opportunity to learn about the problems faced & experience gained on the subject. The participants will also have the opportunity to participate in the optional technical visit to the ± 800 KV multi-terminal at Agra.

Over All Schedule for the Event

Activity	18 Nov.	19 Nov.	20 Nov.	21 Nov.	22 Nov.	23 Nov.
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
WG Meet	✓					
SC Meeting		✓				
Tutorials			✓			
Colloquium				✓	✓	
Optional Tech. Visit to ± 800 kV multi-terminal, Agra						✓

- The participation in the CIGRE WG Meetings & the CIGRE SC meetings is restricted for members only as they have their own agenda to discuss.
- The tutorials will be held on 20th Nov. 2019 (one day). There will be eight tutorials (three (3) tutorials each for SC A2 & B2 & two (2) Tutorials for SC D2). Each tutorial shall be for 45 minutes followed by 15 minutes Q&A. These tutorials will be run in Series from 0830 hrs. to 1830 hrs on 20th Nov. 2019 (with morn., eve. tea breaks & Lunch break in between)
- The colloquium for the three committees will be held in Parallel on 21-22 Nov. 2018. The Timings for colloquium will be from 0900 hrs. to 1730 hrs. on both the days.
- Optional technical visit to ± 800 KV multi- terminal, Agra will be organized on payment basis on Saturday. Participants need to register for technical visit in Advance. Tentative Schedule for Technical visit will be as under:

0630 hrs - Leave for Agra by deluxe coach
 0930 hrs - Reach Agra – Visit Taj Mahal
 1200 hrs - ± 800 KV multi- terminal, Agra (2-3 hrs stay at Terminal)
 1530 hrs - Leave back for Delhi
 2130 hrs - Reach to place of stay
 (Tea/ Coffee, light snacks & lunch will be organized during the trip)

About Technical Visit to Agra

Technical Visit : The 800 kV HVDC terminals at Agra is located about 10 km from the venue. The Agra HVDC terminal is the Inverter station of the world's first 800 kV Multi terminal HVDC Project of 6000 MW capacity and total line length of about 1700 km. One Bipole Rectifier station is located in Biswanath Chariali (Assam) and the second one at Alipurduar (West Bengal). This multi terminal HVDC project was envisaged for evacuation of bulk power from North Eastern Region of India. North Eastern Region of India is endowed with large hydro potential of the order of 50 GW which is required to be transmitted to the load centers of Northern/Western and Southern regions of India. Transmission of such quantum of power over a long distance and through certain geographically narrow corridors called chicken-neck area of West Bengal required a HVDC solution. Looking into the generation addition program, the project has been developed stage wise using parallel groups of converters. Each pole of the Multi terminal HVDC Project has continuous power capacity of 2000 MW i.e., a 33% overload capability which can be utilized to compensate full power for loss of one pole by increasing power flow on the other three available poles. A huge indoor DC yard of about 75 x 75 m and 40 m height is a special feature at the Agra Inverter Station.



Programme for Accompanying Persons

The separate programme including local sightseeing can be organized for accompanying persons through official travel partner, on payment. The details of the programme will be made available at the time of registration.

Registration

The registration fee payable by the delegates, including authors of papers, for participation in the Tutorial, Colloquium and technical Visit is as follows:

Sl. No.	Event	Fee payable per participant from SAARC countries in Rs.			Sl. No.	Event	Fee payable by WGs & Study Committee Members & other foreign participants in USD	
		Participants	Companion	Students/ Faculty			Participants	Companion
1	Tutorial	10,000/-	2,000/-	2,000/-	1	Meeting of Working Groups, Study Committee, Tutorial & Colloquium	350	150
2	Colloquium	18,000/-	4,000/-	4,000/-				
3	Tutorial & Colloquium	25,000/-	6,000/-	6,000/-				
4	Technical Visit	10,000/- per participant			2	Technical Visit	150	150

- 18% GST will be extra for the payment in INR. (GST No. 07AAAJC0237F1ZU).
- 10% discount in registration fee to CBIP, CIGRE-India & IEEMA members.
- However the spot registration is available to a limited extent, it is advisable to register well in advance.
- The Tutorial & Colloquium are non-residential and the timing will be 09.00 AM to 5.30 PM on all the days.
- The registration fee covers the cost of registration kit, Conference proceedings, lunches and tea in-between technical sessions. The participants will have to make their own arrangements for travel, boarding and lodging
- Companion are the immediate relative normally residing with the participant and their fee covers the tea/ coffee, lunch and welcome gala dinner.

VENUE : Hotel Le Meridien, Windsor Place, Janpath, New Delhi (India)

Sponsorship Opportunities

The Colloquium provides an effective opportunity for sponsoring companies to promote their products/services to a focused audience, besides networking with engineers of utility, manufacturers and academic institutions during tea/coffee and lunch intervals. Sponsors are assured of full visibility with printing of their names on proceedings, banners and other publicity material related to Colloquium and will have the privilege of distribution of their product's pamphlets/catalogues during the Colloquium. Sponsors will also have the privilege of sending delegates exempted from payment of registration fee as indicated hereunder:

Category of Sponsorship	Fee in Rs.	Free Delegates in Tutorial & Colloquium	Free editorial in the proceedings
Platinum	5,00,000	10	2 pages
Gold	3,00,000	5	1 page
Silver	2,00,000	3	1 page

For further details, please contact the Colloquium Secretariat.

Call for Advertisements

A limited space for insertion of advertisements in the Colloquium proceedings is available at the following rates:

Position	Charges for Colour Advertisements	
	SAARC countries (Indian Rs.)	Other countries (US\$)
Back cover page	50,000	800
Second or third cover page	30,000	500
Full page	15,000	200

Payment and Correspondence

The payments for the event (registration fee, sponsorship & Advertisement) are to be made to CIGRE India by the following methods:

- Banker's cheque payable to: Central Board of Irrigation and Power, New Delhi
- Bank transfer : Bank charges if any are to be borne by Participants

Beneficiary Name (Payee Name & address): Central Board of Irrigation & Power, Malcha Marg, Chanakyapuri, New Delhi- 21

PAN No. : AAAJC 0237F; **GST Number :** 07AAAJC0237F1ZU

Complete Bank Details : **Bank Name:** HDFC Bank; **Saving Bank Account Number :** 00031110004411

Branch & Address : 209-214, Kailash Building, 26, Kasturba Gandhi Marg, New Delhi 110001;

Branch /RTG/NEFT IFSC : HDFC0000003; **MICR Code :** 110240001; **Swift Code :** HDFCINBBDEL

All the payments details for the event to be furnished along with the registration form and Name of the event should be mentioned under subject in all the correspondence relating to this event.

Note : No other method of payments is acceptable.

Hotel Accommodation and Travel

(a) For any assistance regarding Hotel Accommodation, Travel and City Tours please contact our official travel partner M/s VIDEO Hi.

The Contact persons of our official Travel partner are given below :

- Ms. Ritu Chopra – 9811548209 (E-mail – ritu23chopra@gmail.com OR
- Mr. Jatin Kamboj – 9555555636 (E-mail – Sanjeevchopra@gmail.com

(b) The official venue hotel for the event is: Hotel Le Meridien, Windsor Place, Janpath, New Delhi, India. For the convenience of the participants we have blocked the accommodation at the venue hotel at a very special price i.e., INR 14720/- including GST for single occupancy and INR 16,000 including GST for double occupancy or equivalent US \$ (on the day of booking) per day, inclusive of breakfast. To avail the benefit, the participants are requested to make reservation for accommodation well in advance positively before 31st July 2019. The payment for reservation is to be made online to Hotel Directly with intimation to CIGRE-India.

(c) In addition few rooms have also been blocked in the following hotels within 1 km from venue Hotel.

Name and Address of Hotel	Standard Premium Room		Deluxe Room		Contact detail	Cut of Date*
	Single occupancy	Double occupancy	Single occupancy	Double occupancy		
Hotel The Royal Plaza 19, Ashoka Road, Janpath Lane, Connaught Place, New Delhi – 110001	INR 7000 + Taxes (18%)	INR 7499 + Taxes (18%)	INR 8000 + Taxes (28%)	INR 9000 + Taxes (28%)	Ph: +91 1143555555, Fax : +91 11 43555566 www.hoteltheroyalplaza.com	31st July 2019
Shangri-La's – Eros Hotel 19 Ashoka Road, Connaught Place. New Delhi 110001	Deluxe Room		Horizon Club Rooms		Ph: 91-11-41196133 www.shangri-la.com	17th Oct. 2019
	Single occupancy	Double occupancy	Single occupancy	Double occupancy		
	INR 12,500 + 28% GST	INR 14,000 + 28% GST	INR 16,500 + 28% GST	INR 18,000 + 28% GST		

*Subject to room availability at the time of booking the room.

General Information

Official Language : The official language of the Colloquium is English.

Official Invitation : The invitation contained in this bulletin should generally suffice to plan travel formalities. However, should an official invitation is needed; the same can be sent by the organizers on request.

Visa and Custom Requirement : All visitors to India require a visa, except visitors from Nepal and Bhutan. The best place to get your visa is at Indian Embassy and High Commissions in your country of residence. Please check your nearest Embassy, Consulate or High Commission for all the details for getting visa. Keep your passport with you at all the time

Banking and Communication Facilities : Foreign exchange facilities fax and phone service is available at the venue hotels of the Colloquium.

Climate : The maximum temperature at Delhi in November is around 25°C maximum and 13°C

INDIA - THE HOST COUNTRY

India – The very name conjures images of vibrant colors, mysticism, royalty; an amalgam of religions, a kaleidoscope of art and culture, all of which find expression in the beautiful temples, sculptures and monuments.

Delhi - The Host City

Delhi is a place which has a high esteem history and culture to boast on, Historical monuments and ancient architecture makes the city a sought after destination for tourists and connoisseurs. The monuments in the city are very well preserved by the Archaeological Survey of India. Among the most popular monuments in Delhi are the Red Fort, Purana Quila, Qutab Minar, Iron Pillar, India Gate, Humayun's Tomb, Jantar Mantar and Lotus Temple.

For more details please contact Event Secretariat

V.K. Kanjlia, Secretary CIGRE India & CBIP

P.P. Wahi, Director, CIGRE India & CBIP

Contact Person:

Vishan Dutt, Chief Manager (CBIP) & CIGRE-India

M: 9811431554, E-mail - vishandutt@cbip.org; vishan.dutt.cbip@gmail.com

Central Board of Irrigation & Power (CBIP), Malcha Marg, Chanakyapuri, New Delhi -110 021

Phone: 011-26115984/ 26116567; Fax: 011 2611 6347; E-mail: cbip@cbip.org



List of Technical Papers for International Colloquium

CIGRE SC-A2 on Transformers

- **France** - Improvement of Transformers Specification to Enhance Reliability of Key Power Transformers (GSU for Nuclear Power Plants) - *Patrice Hurllet*
- **France** - Power Transformers Typical Audible Noise Spectra and No-load Noise Emissions Optimization - *M. Gillet, GE Renewable Energy*
- **Germany** - From Grid Friendly Generation Towards a Coordinated Integration: A Phase Shifting Transformer helps to Complete the Circle - *A. Nilakantan, Maschinenfabrik Reinhausen*
- **Japan** - The Study for Overload Operation Limit of Fully Assembled Transportable Nitrogen Gas - Sealed Distribution Transformer - *K. Aoki*
- **Japan** - The Development of Advanced Gas-Insulated Transformers Reduced in Size - *Shin Yamada*
- **Japan** - High Accuracy of Temperature Design Technology for Power Transformers - *R. Nishiura, Mitsubishi Electric*
- **Portugal** - Thermal Investigation in an Experimental and Full-Scale Core-Type Transformer - *S. Couto, Efacec*
- **Republic of Korea** - Noise Analysis Technology and Noise Reduction Method of Cast Resin Transformer - *S. E. Kim, LSIS*
- **Russian Federation** - Assessment of Stresses on Power Transformer Winding Internal Insulation Under Resonant Overvoltages - *V.S. Larin*
- **United Kingdom** - Investigation of Alternative Liquids and Ambient Temperature on Transformer Thermal Behavior - *Z.D. Wang, University of Manchester*
- **United Kingdom** - Fundamental Understanding of Frequency Response Analysis through Transformer Modeling - *Z.D. Wang, University of Manchester*
- **United Kingdom** - Generation of Carbon Oxides Gases in Transformer Oil-Paper Insulation System Under Thermal Faults - *Z.D. Wang, University of Manchester*
- **Brazil** - Comparison between Detailed and Simplified Numerical Model of the Windings of a Power Transformer for the determination of Internal Temperature Elevations - *Juliano Ricardo Da Silva, Itaipu Binacional*
- **France** - Short-Circuit withstands Demonstration: Advantages of Full Test, Needs for Improvement, Feedback on Power Transformers Qualification - *Mohamed Ryadi, Électricité de France*
- **India** - Failure Modes of the Transformer During Short Circuit Withstand Testing - *T. Prabakaran, CPRI*
- **Japan** - Evaluation of a Bundle Coefficient for the Transformer by the Full Scale Short Circuit Test - *R. Nishiura, Mitsubishi Electric Corporation*
- **Russia** - Russian Practice on Tests and Confirmation of Power Transformers Ability to Withstand Short Circuits - *V.S. Larin, Russian Federation*
- **Turkey** - A Compact Machinery for Making Transformer Tanks with Welding & Milling Automation: Equipped by Double Torch with Linearity Correction and 3 Axis CNC Milling Centre - *Nihat ÇELİK, Best Transformers Co.*
- **Canada** - Developments in Rating Increase of Aged Transformers - *E.G. Tenyenhuis, ABB*
- **Germany** - UHF PD Monitoring of Power Transformers - *S. Tenbohlen, Universität Stuttgart*
- **Germany** - Transformer Equivalent Circuit Parameter Estimation using Frequency Response Analysis - *S. Tenbohlen, Universität Stuttgart*
- **Republic of Korea** - The Study for Cooperation Group Standards of Edge Computing Power Transformers - *T.Y. Kim*
- **Russia** - Application of Power Transformer Winding Admittance Measurements for FRA Interpretation - *V.S. Larin*

- **Slovenia** - Difference between 50 Hz and 60 Hz Transformer Load Noise Levels - *M. Pirnat*
- **Sweden** - Approach to DFR Analysis for Condition Assessment of 400 kV Transformer and Shunt Reactor OIP Bushings - *E. Ermakov, ABB*
- **India** - Statistical based an Investigation of Failure of Power Transformers and Reactors - *Mohan P, GE T&D*
- **India** - Explosion Prevention and Fire Protection of Transformers – An analysis of 3 decades of Indian Experience - *V.K. Wakchaure, CTR*
- **India** - Step-by-Step Approach to Detect and Locate Partial Discharges in Transformers using UHF & Acoustic Sensors with a Portable PD Surveyor- *Arun Yargole, Doble Engineerin*
- **India** - Experience of Site Repairing of 315 MVA 400/220/33 kV ICT Along with Replacement of OLTC- *Partha Ghosh, Powergrid*
- **India** - Transformer Bushings: Current Technology Trends , Developments & it's Relevance in Monitoring of Bushings in Service - *Nirav Patel, Yash High Voltage*
- **Turkey** - The stray Loss Evaluation and Shielding in Structural Parts of Power Transformers - *Selim Yürekten, Enpay*
- **Germany** - Field testing on Power Transformers - *Dr. Uwe Kaltenborn, HIGHVOLT*

CIGRE SC-B2 on Overhead Lines

- **Australia** - Engineering Practice in Transmission -Methods Comparison and Experience - *R. Kulkarni, Electranet*
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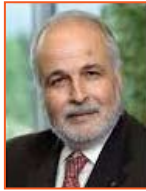
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