

CIGRE SC B5 2025 Osaka Colloquium GUIDE BOOK

30th June - 6th July 2025 Osaka International Convention Center





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Times change. Energy sources as well.

But the need for stable power supply is *constant*.







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Kansai Transmission and Distribution

Welcome Message

Kazuhiro Enomoto

CIGRE SC B5 chair of Japanese National Committee Executive officer, Renewable Energy Division, Kansai Electric Power Co., Inc. Chair, CIGRE 2025 Osaka Colloquium Organizing Committee





We are pleased to announce that the CIGRE SC-B5 Colloquium will be held at the Osaka International Convention Center (Osaka, Japan) from June 30 to July 6, 2025. This colloquium is organized by the Study Committee (SC) of CIGRE, an international organization, and is held every two years. The colloquium is a meeting for the presentation of CIGRE papers.

The colloquium is organized under the general theme of "The rapid development of communication and digital technologies has brought about the transition from the conventional hard-wired systems to IEC 61850 based systems in digital substations." It focuses on the following preferential subjects:

- PS1 : IEC 61850 based Interoperability of IEDs of different manufacturers and technologies integrated in one PACS
- PS2: PACS Life Cycle Performance and Longevity
- PS3 : Sharing of best practices on revised principles enabled by modern protection IEDs

Over the course of three days, numerous papers will be presented in one tutorial and three sessions. Social programs including receptions and a technical tour related to Expo 2025 Osaka, Kansai are also planned to contribute to international exchange.

The CIGRE 2025 Osaka Colloquium will provide opportunities to deepen academic exchange and contribute to the development of power technology worldwide. We aim to share solutions to challenges faced in different countries and promote engagement among participants.

Welcome to the CIGRE 2025 Osaka Colloquium! We hope you enjoy the event.

Committee Members

Colloquium Organizing Committee



Mr. Kazuhiro Enomoto

Chair Osaka Colloquium Organizing Committee, <u>CIGRE SC B5</u> of Japanese National Committee Kansai Electric Power Co., Inc.

CIGRE SC B5



Dr. Volker Leitloff Chair <u>CIGRE SC B5</u> RTE (Réseau de Transport d'Électricité)



Mr. Peter Bishop Secretary CIGRE SC B5 Transpower

Conference Venue

Access to Osaka International Convention Center (Grand Cube Osaka)

From overseas to Osaka, Kansai International Airport (KIX) or Osaka International Airport (ITM) are convenient to visit.

From Kansai International Airport to Osaka Station

- Take the JR Limited Express Haruka to Tennoji Station (approx. 30-50 min.). Transfer to the JR Osaka Loop Line to Osaka Station (approx. 10 min.).
- Take the Nankai Electric Railway Limited Express Rapi:t to Namba Station (approx. 35-45 min.). Transfer to the Midosuji Subway Line to Umeda Station (Osaka Station) (approx. 5 min.).
- Take the Limousine Bus to Osaka Station (approx. 1 hour). Travel time may vary due to traffic.

From anywhere in Japan (plane/shinkansen)



From Osaka Station to Osaka International Convention Center

- Free shuttle bus available from Osaka Station.
 (You can use the shuttle bus of the Rihga Royal Hotel)
- About 10 minutes by taxi from Osaka Station.

From around Osaka (Train/Bus)



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Conference Venue

Osaka International Convention Center (Grand Cube Osaka)

Conference Building





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- 1 Reception Desk 4 OP Ceremony (6/30 13:00~7/1) 1()_F Tutorial 2 Reception Desk Group Discussion Meeting (7/2~7/4)
 - 8 Poster Sessions (1004+1005)
- (1003)6 Exhibition Hall
- (1008+1009)
- 6 Lunch & Break

 $(1001+1002:7/2\sim7/4)$





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Program

Date	Time	Event	Place
June 30 (Mon)	9:00-17:00	WG Meetings (B5 86,88)	Room 1005 (B5 86) Room 1006 (B5 88)
July 1 (Tue)	9:00-17:00	WG Meetings (B5 86,83,81,87)	Room 1005 (B5 86) Room 1007 (B5 83) Room 1101 (B5 81) Room 1102 (B5 87)
Suly I (Tue)	9:00-12:00	WG Meetings (B5 65)	Room 1006 (B5 65)
	15:00-19:00	WG Meetings (B5 74)	Room 1006 (B5 74)
	9:00-18:00	WG Meetings (B5 63)	Room 1006 (B5 63)
July 2 (Wed)	9:00-12:00	SAG/TAG meeting	Room 1007
Suly 2 (Wea)	14:00-17:30	Poster Sessions	Room 1004,1005
	18:00-20:00	Welcome Party	Restaurant GRANDE TOQUE (12th floor)
	9:30-10:20	Opening Ceremony	Room 1003
July 3 (Thu)	10:30-13:00	Tutorial	Room 1003
	14:00-17:30	Group Discussion Meeting PS2	Room 1003
	9:00-12:30	Group Discussion Meeting PS1	Room 1003
July 4 (Fri)	13:30-17:00	Group Discussion Meeting PS3	Room 1003
	18:00-20:00	Gala Dinner	Room "Sanraku," Tower Wing 2nd floor, Rihga Royal Hotel Osaka
July 5 (Sat)	8:30-17:00	B5 Meeting	Room 801,802
July 6 (Sun)		Technical Tour	EXPO 2025 Osaka, Kansai,







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Date & Time

2 July 14:00 - 15:30 1st Session 16:00 - 17:30 2nd Session

Venue

Room 1004+1005

Location



<u>PS1</u>

IEC 61850 based Interoperability of IEDs of different manufacturers and technologies integrated in one PACS

posterID	Session	Title	Author (Presenting author)	Location
1100	2nd Session	IEC 61850-based off-site engineering and validation methodology for protection, automation, and control systems	Silva Melo, André Felipe; Ribeiro, Uire; Granadino, Alessandro; Silva, Adilson;Rossero-Morillo, Veronica;GONZALEZ-LONGATT, Francisco	P1
1110	2nd Session	Itaipu experience in the evaluation of performance and interoperability of protection based on process bus	Pesente, Jonas; Vargas, Esteban; Nizer, Leonardo; Valoto, Leandro	P2
1113	1st Session	Interoperability Aspects from Rte's R#SPACE Project related to the Application of IEC 61850 Requirements	Leitloff, Volker; Merley, Maud; Dubar, Dominique; Ghafari, Christophe; Bedourian, Martial; Fontenay, David; Malosse, Romain	P3
1114	2nd Session	Standards based engineering and its impact on interoperability of IEC 61850 based protection and control systems	Apostolov, Alexander	P4
1117	1st Session	Development of Gateway for IEC 61850 Digital Substation	NISHI, Shintaro; JOZEN, Daichi; OKAHISA, Atsushi; TAKESHITA, Yosuke	P5
1120	2nd Session	Research on the improvement of operation and maintenance efficiency of relay protection based on digital design technology	LV, Hang; GONG, Xiao; DING, Jie; LI, Li	P6
1121	1st Session	Experiences in Interoperability Testing of IEDs Focusing on Time Synchronization Behavior	Junior, Paulo Sergio Pereira; Bernardino, Rodolfo Cabral; Salge, Gustavo Silva; Martins, Cristiano Moreira; Lourenço, Gustavo Espinha; Pereira, Paulo Sergio	P7
1128	2nd Session	Multivendor Interoperability Tests for Process Bus in Japan based on International Standards	KAWASAKI, Kota; DEGUCHI, Masayuki; OKAI, Makoto; ASAI, Takeshi; SHIMOFUJI, Keigo; SHIROI, Shotaro; KATAYANAGI, Yasutaka; IWAMARU, Akifumi; NAGATA, Keiichi; ISHIGAMI, Yuta	P8
1129	1st Session	Development of IEC 61850 compliant multi-functional fault recorder	SUZUKI, Reiya; ISHIKAWA, Masayuki; SHINOZAKI, Masafumi; UEDA, Junichi; INOMATA, Yoshiharu; KATAOKA, Tetsuya; YAMAMOTO, Harumi; ONISHI, Hiroyuki	Р9
1130	2nd Session	IEC 61850 based Interoperability : CYG SUNRI's exploration in Intelligent Substation	Luo, Laifeng; Yu, Weiguo; Li, Jin; Gao, Xiaoquan	P10

<u>PS1</u>

IEC 61850 based Interoperability of IEDs of different manufacturers and technologies integrated in one PACS

posterID	Session	Title	Author (Presenting author)	Location
1138	2nd Session	INTEROPERABILITY TESTS IN A MULTIVENDOR PLATFORM OF BUSBAR PROTECTION USING IEC 61850 PROCESS BUS APPLIED BY CIGRE WORKING GROUP B5.74.	LELLYS, DENYS; FLORES, Pablo; Melo, Andre; Goblirsch, Rainer; Ferrero, Iñigo; Redondo, Cesar; Faramawy, Hamdy; Dierks, Alex; Toledo, Rafael; vijayaraghavan, sindhuja; aguilar, Carlos	P11
1142	2nd Session	Enhanced PACS Network with Intent-Based Networking and IEC 61850	Lisboa, Guilhermme; Haegdorens, Davy; Kehrer, Stephan	P12
1143	1st Session	IEC 61850 based Interoperability of IEDs of different manufacturers and technologies integrated in one PACS	Lisboa, Guilhermme; Normanton, Guilherme; Vasquez, Arnau; Jorge, João	P13
1146	2nd Session	Top-Down Engineering Process Application on Digital Substation Protection, Automation and Control System Deployment	Alexandrino, Mateus; Azevedo, Ana Gabriela da Silva de; Lunardi, Mateus Cruz; Higashi, Silvia Sawada Simões Costa; Pietta, Vitalcir; Ferreira, Adriano de Oliveira; Oleskowicz, Bruno Alexandre; Moraes Neto, Carlos de Souza; Scheffer, Rafael Bonet	P14
1149	1st Session	Best practices for IEC 61850 tools to achieve interoperability and efficiency	Harispuru, Cédric; Sanchez, Jose; Schneider, Sebastian	P15
1157	1st Session	Simplifying the configuration process for IEC61850-based systems through generative AI technology	Fernandes, Gabriel; Pires, Adriano; León, Héctor; Lemos, Heverton	P16
1159	1st Session	A proposal for standardisation of GOOSE and Sampled Value messages configuration	Kuniyoshi Pacheco, Rodrigo Kenzo; Hernandes, Romulo Augusto	P17

<u>PS2</u>

PACS Life Cycle Performance and Longevity

posterID	Session	Title	Author (Presenting author)	Location
1111	1st Session	Development of Integrated System Emergency Preventive Controller for 500kV Systems	Sato, Masami; Ito, Shu; Oeda, Yoshikazu; Yano, Genki; Endo, Takuya; Inuzuka, Naoya; Ishii, Takumi; Yamazaki, Tomohide; Yoshimoto, Saori; Yamada, Fumio	P18
1125	1st Session	Application of updating Total Measurement System using intermediate distribution frame retrofit modification	Tado, Katsuyuki	P19
1126	2nd Session	Evolution of the System Stabilization Technology Supporting the Stable Operation of the Kansai Grid	KURUSHIMA, Tomohiro; ARAMAKI, Takuo; TAKESHITA, Yosuke; JOZEN, Daichi; TAMURA, Tsubasa	P20
1127	1st Session	Status and future direction of digital relay operation and maintenance in Japan	Deguchi, Keita; Ueda, Yoshinobu; Okamura, Kenji; Sato, Ryohei; Miyagi, Takashi; Ichinose, Ken; Fukuya, Yoshifumi	P21
1131	1st Session	Unit-replacement method of Protection Relay	SHIMOFUJI, KEIGO; TAKEMOTO, YOSHITAKA; NISHIMURA, KENTARO; HYODO, KAZUYUKI	P22
1139	1st Session	Digitalization Progress and Approach for Full Digitalization of Distribution Substations in the Kansai Region of Japan	Kato, Ren; Kitamura, Haruka; Uemura, Saki; Ito, Masahiro; Itotani, Ryosuke; Yamamoto, Yuuma; Sugawara, Akinori; Taniizumi, Katsuya	P23
1144	2nd Session	Line Differential Protection over MPLS-TP: Guaranteed Reliability, Flexibility, and Longevity in PACS	Haegdorens, Davy; Sugiura, Hideaki; Lisboa, Guilhermme	P24
1155	1st Session	Life Cycle Management Overview of Protection, Automation, and Control Systems for Drilling Vessel Projects	Aviz, Carlos; Fernandes, Rafael; Dutra, Ricardo; Hafner, Angelo; Tavares, Carlos	P25
1165	1st Session	Enhancing existing line differential relay operation reliability with hitless IP/MPLS multipath redundancy	Chan, Hansen; Verhulst, Dominique	P26

<u>PS3</u>

Sharing of best practices on revised principles enabled by modern protection IEDs

posterID	Session	Title	Author (Presenting author)	Location
1107	1st Session	A Novel Short-circuit Detection Scheme for IBR-based MV(medium voltage) Microgrids	Uda, Satoshi; Kawasaki, Yoshinori; Ishikura, Sadayuki	P27
1109	1st Session	Prototype and evaluation of a new Sampling Rate Interchange-MU compliant with IEC 61850/61869	KAWAZOE, Ryuichi; KOJIMA, Kazuhiro; IWAMARU, Akifumi; SHIMIZU, Tetsuro; OMORI, Tomoo; OTANI, Tetsuo; AOKI, Mutsumi	P28
1112	2nd Session	Method of single-phase grounding protection for small resistance grounding system	Li, Yuqi; Zhu, Haobin; Xu, Guangfu	P29
1115	1st Session	Cross differential protection applications in IEC 61850 based digital substations	Apostolov, Alexander	P30
1116	2nd Session	Development of a 275kV Line Differential Protection IED with Distributed and Integrated Functionality	TAMURA, Tsubasa; JOZEN, Daichi; OKAHISA, Atsushi; TAKESHITA, Yosuke; NOSE, Yotaro; MORI, Takahiro	P31
1119	1st Session	Implementing IRAS that Contributing Blackout Prevention	Yabuno, Naruhito; Izumi, Yuta; Adachi, Tomohiro; Kusaba, Kenichiro	P32
1122	2nd Session	Cybersecurity Risks and Operational Impacts on Microgrids in Grid-Connected and Isolated Modes	Carmo, Ubiratan	P33
1123	1st Session	Development of a portable transfer trip device	YAMAZAKI, NATSUMI; FUKUO, TOMOHIRO; YAMAUCHI, SEIYA; ONO, MASAYUKI	P34
1124	2nd Session	Considerations for Using IEDs as Protection Relay Devices in Japan	MIZUHARA, Satoshi; JOZEN, Daichi; TAKESHITA, Yosuke	P35
1134	2nd Session	Impact of LPITs on Protection Algorithms	Schulz, Lars Lukas; Dzienis, Cezary	P36
1135	1st Session	Development of N-1 inter-trip scheme using IP transmission	TANIGAWA, SHINJI; NAKATA, YASUYUKI; SAYAMA, HIROKI; KURUSHIMA, TOMOHIRO	P37
1137	1st Session	Automatic Supervision for Trip Circuit in Process Bus System	Okai, Makoto; Sonobe, Yasutaka; Miyoshi, Tetsuya; Lizhou, Cheng; Kojima, Kazuhiro	P38
1141	1st Session	Development of Integrated Stability Control (ISC) system	TAKAMATSU, Yuki; YAMAGUCHI, Ryo; HOSHINO, Tomohiro; KUSABA, Kenichiro	P39
1145	1st Session	Double ended travelling wave fault location using unsynchronized data	Blumschein, Joerg	P40

<u>PS3</u>

Sharing of best practices on revised principles enabled by modern protection IEDs

posterID	Session	Title	Author (Presenting author)	Location
1147	1st Session	Sensitive Turn-to-turn Fault Protection for Power Transformers Using Incremental Negative- Sequence Differential and Advanced Stabilising Criteria	Mieske, Frank; Schneider, Sebastian; Rebizant, Waldemar; Solak, Krzysztof	P41
1148	2nd Session	Management of IEDs: Challenges	Hernandez, Fabio; Guerrero, Christian; Gonzalez, Laura; Caicedo, Juan M; Guerra, Gerardo; Gil, Alejandro; Agudelo, Juan P.	P42
1151	1st Session	Line Differential Protection for Long-Distance Remote Assets using Passive Optical Sensing	Mckeeman, Iain; Hale, Elliot; Cadger, Fraser; Gordon, Neil; Blair, Steven	P43
1152	2nd Session	turn-to-turn faults in an optimum	Schneider, Sebastian; Mieske, Frank; Steynberg, Gustav; Damasceno, Jorge; Solak, Krzysztof	P44
1154	2nd Session	adopted by Brazilian TSO	Fernandes, Rafael; Dutra, Ricardo; Muratore, Juliana; Aviz, Carlos	P45
1161	2nd Session	Evaluation of a line protection system with a series-compensation capacitor	Kuniyoshi Pacheco, Rodrigo Kenzo; Fernandes Pinheiro, Felipe	P46
1163	1st Session	Monitoring System for the Communication Network of Protection Systems in Digital Substations	Oliveira, Denise Borges de; Alves, Tatiana Maria T. de S.; Siqueira, Iony Patriota de	P47
1164	2nd Session	Case Study of a PCMS in a Real- World Power Network	Hussein, Tarik Mehmet	P48

Opening Ceremony

Date & Time

July 3rd (Thu.) 9:30 - 10:20

Venue

Room 1003

Program & Time Schedules

Time	Room 1003
9:30- 9:35	Opening Remark Mr. Kazuhiro Enomoto, Chair of SC B5 Japanese National Committee Kansai Electric Power Co., Inc.
9:35- 9:50	Welcome Speech Dr. Volker Leitloff, Chair of CIGRE SC B5 RTE (Réseau de Transport d'Électricité),
9:35-10:20	Keynote Speech Mr. Takahiro Kase, Toshiba Energy Systems & Solutions Corporation



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Keynote Speaker

Mr. Takahiro Kase

Senior Manager Grid Service Business Creation Department Grid Solution Div. Toshiba Energy Systems & Solutions Corporation



Takahiro Kase received the Bachelor of Engineering and Master of Engineering degrees in Electrical Engineering from Waseda University, Tokyo, Japan, in 1993 and 1995, respectively. Upon joining Toshiba Corporation in 1995, he has dedicated his career to the energy systems sector, with a particular focus on international protection and control business. He has also contributed to activities such as CIGRE SCB5, IEC TC57 and TC95. He is currently a director at IEEJ and serves as the Vice Chairman of IEEE PES Japan. Recently, he has been focusing on digital transformation in the transmission and distribution business.

Tutorial

Title

Protection and Automation Considerations During Power System Disturbances (SC B5)

Date & Time

July 3rd (Thu) 10:30 - 13:00

Venue

Room 1003

Program & Time Schedules

Time	Торіс	Speaker
10:30 -10:40	Introduction	Mrs. Anita Oommen ElectraNet (Pty) Ltd, Adelaide, South Australia
10:40 -11:05	Japan's experience of RAS	Mr. Toru Maeda Mitsubishi Electric Corporation
11:05 –11:55	Overview of protection performance and the impact of IBR during a recent blackout in Brazil, and the measures to mitigate this impact on the power grid	Ms. Denise Borges de Oliveira National Operator of Brazilian Power System - ONS
11:55 -12:20	Protection and automation issues of islanded systems during system restoration	Prof. Nirmal Nair University of Auckland, New Zealand
12:20 -12:50	Q&A Session	Audience
12:50 -13:00	Closing	Mrs. Anita Oommen



Tutorial

Presenters

Mrs. Anita Oommen

Anita Oommen has over 28 years of experience in the field of power system protection, having previously fulfilled various roles in the South African power utility, Eskom, including leading the development of standards and guidelines for protection and automation. She is presently involved in the standardization of engineering solutions for secondary systems for the South Australian Transmission grid. This includes ensuring protection and control adequacy in a network with high penetration of renewable energy resources.

Anita served as Regular Member for South Africa on SC B5 from 2016 to 2022. From 2022, she has served as the advisor for the Tutorial Advisory Group of SC B5.

Mr. Toru Maeda

Mr. Toru Maeda is a Deputy Senior General Manager of Transmission & Distribution Systems Center at Mitsubishi Electric Corporation. He received his Master's degree from Kyoto University (JP) in 1995 and has 30 years of experience in power system protection and control. He has been engaged in the development of Remedial Action Schemes (RAS), with several systems currently in operation. Prior to his current role, he served as the General Manager of Protection & Control Systems Department until March 2025.

Mr. Maeda has also participated in technical committees of The Institute of Electrical Engineers of Japan (IEEJ) and the Electric Technology Research Association (ETRA).

Ms. Denise Borges de Oliveira

Graduated in Electrical Engineering from the State University of Rio de Janeiro in 1981 and completed a postgraduate degree in Electrical Systems Protection from the Federal University of Rio de Janeiro in 2003. Conducted studies and performed commissioning tests on protection systems at Furnas Power Plants Inc. from 1981 to 2013. In 2014, started working at the National Operator of the Brazilian Power System - ONS, conducting studies on methodologies for protection system applications, performing analyses of protection systems during disturbances and developing protection and Automation Committee (CE B5) of CIGRE Brazil and committee to advancing protection systems through active participation in technical committees and seminars. Since 2023, has been a professor in the postgraduate course in protection systems at the Military Institute of Engineering - IME, in Rio de Janeiro.

Prof. Nirmal Nair

Dr. Nirmal Nair is a globally recognized expert in electrical engineering with academic credentials from Maharaja Sayajirao University (B.E.), Indian Institute of Science (M.E., Gold Medal), and Texas A&M University (Ph.D.). He has held research and professional roles across India, the USA, and New Zealand. A Fellow of IEEE and CIGRE Distinguished Member, he received the 2022 CIGRE SC B5 Outstanding Service Award. Dr. Nair has been a key contributor to CIGRE New Zealand since 2008, serving in multiple leadership roles. Internationally, he has contributed to several CIGRE B5 working groups, task forces, and Paris sessions as Special Reporter. He is the editor of the CIGRE Green Book on IEC 61850 and currently represents NZ in CIGRE C5. He convened TB 810 on protection in islanded systems and continues to share his expertise through tutorials, including as a contributor to the 2025 CIGRE SC B5 Osaka Colloquium.

Group Discussion Meeting

Date & Time

1		
4 July	13:30 - 17:00	PS3
4 July	9:00 - 12:30	PS1
3 July	14:00 - 17:30	PS2

Venue

1003

PS	
	IEC 61850 based Interoperability of IEDs of different manufacturers and technologies integrated in one PACS
PS1	Special Reporter
	Mr. Mikko HOLMGREN
	Fingrid Oyj
	PACS Life Cycle Performance and Longevity
PS2	Special Reporter
F 52	Mr. Kazuhiro Enomoto,
	Kansai Electric Power Co., Inc.
	Sharing of best practices on revised principles enabled by
	modern protection IEDs
PS3	Special Reporter
	Ms. Maud MERLEY
	RTE (Réseau de Transport d'Électricité)



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Energy solutions

Preparing critical infrastructure for seamless communication and operational efficiency



Upgrade your grid

Power transmission and distribution companies are in a race to modernize telecommunication technologies and improve resiliency. Meanwhile, companies are responding to aging infrastructure, extreme weather and energy transition – not to mention increased demand from a growing population. Reliable connectivity is a must, especially for high-voltage transmission networks. Belden's digitization solutions help utilities harness the power of data to deliver secure, dependable and affordable energy, enhancing critical applications such as protection, automation and control systems, as well as teleprotection.







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TEPCO Power Grid, Inc.

The amount of energy provided by TEPCO Power Grid to the Tokyo Metropolitan Area - the heart of Japan's economy - accounts for around one-third of the total power consumption rate for Japan. TEPCO Power Grid continually provides a stable, high quality power supply.



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Top-share manufacture of Digital Fault Recorder/ Fault locator in Japan

KINKEI SYSTEM CORPORATION is a leading company in Digital Fault Recorders(DFRs), and we have been contributing to Japan's stable electric power supply for over 60 years.

The DFR has evolved into a 'multifunctional measurement device' that integrates the functions of DDR (Dynamic Disturbance), PQR (Power Quality, e.g. 50th harmonic), PMU (Synchrophasor), and SER (Sequence of Event) into a single unit. In recent years, we have also developed an IEC 61850-compliant model, which has been delivered to electric power companies both in Japan and abroad.

Furthermore, by applying this technology, we developed a transmission line Fault Location system (FL), which has also been supplied to utilities worldwide.

To support the global mission of power companies—ensuring a reliable and stable electricity supply—we provide high-quality DFR and FL solutions.





Contribute to the resilience of the electric power system and the development of industry.

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Exhibition

Exhibition Hall

Wednesday 2 July 13:00 - Friday 4 July 13:00



Exhibition

Gold Sponsors

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SHAPING THE ENERGY WORLD OF TOMORROW

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- Digitalization of the process level
- Cybersecurity
- · Grid operation
- Integrated engineering
- Asset management

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Welcome Party ⁸ Gala Dinner



Photo Credit: RIHGA Royal Hotel 26

Welcome Party



Photo Credit : GRANDE TOQUE

Date

Tuesday 2 July , from 18:00 to 20:00 (Door open 17:45)

Venue

GRANDE TOQUE



- · No registration fee (included in the registration fee for the colloquium)
- · The party will be held buffet style.
- Kindly ensure that you bring your name badge.

Gala Dinner



Date

Photo Credit: RIHGA Royal Hotel

Friday 4 July , from 18:00 to 20:00 (Door open 17:30)

Venue

SANRAKU, Tower Wing, 2nd Floor, RIHGA Royal Hotel



Photo Credit: RIHGA Royal Hotel

- · No registration fee (included in the registration fee for the colloquium)
- · Several special attractions are being prepared.
- Kindly ensure that you bring your name badge.

Technical Tour

Destination EXPO 2025 Osaka, Kansai

Tour Schedule

- Group A: Meeting at 9:00 AM, dismissal at 12:00 PM
- Group B: Meeting at 10:00 AM, dismissal at 1:00 PM
- Group C: Meeting at 11:00 AM, dismissal at 2:00 PM

Meeting Point

In front of the East Gate Entrance of the Kansai Expo 2025. Access: Yumeshima Station on the Osaka Metro Chūō Line.



- Kindly ensure that you bring your name badge.
- Participants who arrive late for their assigned meeting time will unfortunately not be able to join another group.
- · Large luggage is not permitted inside the Expo.



Osaka Colloquium logo as a landmark for gathering.

29

HIGH GURRENT GONNEGTORS

Contact Band for Switchgear







Custom designed connectors based on your specifications, including capacity, shape, materials and environments.

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