



International Tutorial (Online) Modelling and Dynamic Performance of Inverter Based Generation in Power System Transmission and Distribution Studies

Under the aegis of CIGRE NSC C4 on Power System
Technical Performance

15th February 2021 at 16:00 hrs. (90 Minutes)

TAKEAWAYS

The author will cover brief content of brochure CIGRE JWG C4/C6.35/CIREC and the description of guidance on inverter-based generator models with associated functions that should be used for specific phenomena such as frequency deviation, large voltage deviation and long-term voltage deviation. This guideline helps to reduce the computational burden when performing simulations as well as to represent more accurate power system dynamic behavior with inverter-based generators following faults.



Mr. Zia Emin
Chairman CIGRE SC C4



Mr. B.B. Chauhan
Chairman CIGRE NSC C4 &
Ex. CMD, GETCO

INTERNATIONAL SPEAKERS FROM CIGRE



Dr. Koji Yamashita
Japan



Prof. Herwig Renner
Austria



Mr. Sergio Martinez
Spain



Dr. Petros Aristidou
Cyprus

ABOUT CIGRE AND 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 30 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 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 820 equivalent members for CIGRE in the year 2019.

UNIQUE FEATURES OF ONLINE PRACTICAL TRAININGS

- Training with high safety of participant's w.r.t. COVID-19 as no travel & travel related cost is involved.
- Expert's Panel discussions within participants.
- Learning and working balance as our sessions are planned for 2 hours in a day.
- Well proven online platform with high cyber security.
- Live message chat, live voice chat, polls and quiz.
- Real time engagement.
- E-Certificates to the participants.

FACILITATION CHARGES

The duration for online training will be of 1 hr. 30 min. will be for tech. session followed by 30 min. for question/answer session.

Category	Charges in INR	
	Members (CIGRE/CBIP)	Non-Members
Individual Login	1,000/-	1,200/-
Institution Logins		
Up to 10 Login	9,000/-	11,000/-
Up to 15 Login	13,000/-	15,000/-
Up to 25 Login	20,000/-	22,000/-
Students	500/- per Login	
First 25 students will be given one year membership of CIGRE to have access 10,000 Technical Reports available on e-CIGRE library.		
Note: 18% GST extra for all categories.		

The program is limited to 200 participants, which will be on First cum First serve basis.

TO REGISTER

The perspective participants, desirous of attending the above training may register themselves by sending the following details to CIGRE-India along with necessary facilitation charges:

Title of Training _____; Name: _____;
Designation: _____; Organization: _____;
Mailing address: _____; Phone / Fax/E-mail: _____

Note: After registration, the participants will be provided the link 1 day prior to the session. Registered participants may please contact for link to join the program at:
Mr. Uttam Rawat, Software Engineer, Mob: 9818981610
Mrs. Rohini, Office Coordinator, Mob: 8860874012

Vender Name: (GST No. 07AAAAZ0260A1Z1)
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Bank Name: Canara Bank, 7/48, Malcha Marg, Chanakyapuri, New Delhi-110021; Account: Saving; Bank Account No.: 0157101031491; IFSC: CNRB0000157; MICR: 110015007; PAN: AAAAZ0260A; Swift: CNRBINBDDFS

ADDRESS FOR CORRESPONDENCE

Sh. A.K. Dinkar, Secretary, CIGRE-India & CBIP
Sh. A.K. Bhatnagar, Director, CIGRE-India & CBIP

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JOIN CIGRE TO CONNECT WITH GLOBAL POWER SYSTEM COMMUNITY

Please Contact:-

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Mob: 9811431554
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ABOUT INTERNATIONAL SPEAKER FROM CIGRE

Dr. Koji Yamashita, Japan

Dr. Koji Yamashita brings more than 20 years of industry experience with the Central Research Institute of Electric Power Industry, Japan, working closely with all Japanese TSOs.

Dr. Yamashita has an MS (1995) from Waseda University in Tokyo, Japan, and a Ph.D. (2020) in Electrical Engineering from Michigan Technological University in the U.S. During 2006, he spent sixteen months as a visiting scholar at Iowa State University in the U.S. He is going to be a postdoctoral researcher at the University of California Riverside in 2021.

Between 2009 and 2018, Dr. Yamashita joined nearly ten Japanese demonstration projects related to the smart grid with various energy storage systems and renewable energy sources. He developed the dynamic simulation models, such as protection and control models following disturbances. He validated those models, working on-site, and acquiring real measurements.

The advanced frequency control scheme with renewables and batteries brought him the Institute of Electrical and Engineering, Japan (IEEJ) Distinguished Paper Award in 2011. This success led to three years of the post of editor of IEEJ Transactions on Power Systems in 2013.

He was a convener of CIGRE C4/C6.35/CIREN JWG (renewable energy source modeling) in 2013-2018. He has also taken the lead to CIGRE C4.605 (load modeling), CIGRE C2/C4.34 (emergency control systems), and CIGRE B5.C4.61 (low inertia's impact on protection and control) as a full member.

Dr. Yamashita has been a member of CIGRE since 2009 and IEEE since 2004.

Prof. Herwig Renner, Austria

Herwig Renner works as an associate professor at the Institute for Electrical Power Systems at the Graz University of Technology. His main fields of interest are industrial power quality and power system control and stability. He is a member of the CIREN technical committee and contributing to several CIREN/CIGRE working groups as a full member.

Mr. Sergio Martinez, Spain

Sergio Martinez Villanueva received his Master's degree in Industrial Engineering from the Polytechnic University of Madrid. He joined in 2005 Red Eléctrica de España, the TSO of the Spanish electricity system, in the Power System Reliability Department. One of his critical tasks has been a wide variety of dynamic simulation studies. He has been developing the European grid code on requirements for generators (RfG) in ENTSOE and chairing the national committee for Spanish technical standards for compliance with RfG in Spain.

Dr. Petros Aristidou, Cyprus

Petros Aristidou is a lecturer in the Department of Electrical Engineering and Computer Engineering and Informatics at Cyprus University of Technology since January 2020. He got his diploma from the National Technical University of Athens (Greece) in 2010 and his Ph.D. at the University of Liege (Belgium) in 2015. He was a postdoctoral researcher at the Power Systems Laboratory at ETH Zurich (Switzerland) working on the H2020 project MIGRATE pertaining to low-inertia, power systems. In 2016-2019 he was a lecturer at the University of Leeds (UK), leading the Smart Grids Lab.