

International Tutorial (Online)

System security challenges with high penetration of inverter-based resources

Under the aegis of CIGRE NSC C2 on System Operations and Control

28th January 2021 at 1100 – 1300 hrs.

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Chairman CIGRE NSC C2 & National Representative In CIGRE Study Committee C2 On System Operations & Control

K.V.S. Baba

Chairman and Managing Director
POSOCO Limited

TAKEAWAYS

- System Security Challenges with high penetration of inverter-based resource: Modeling issues
- Power system load flow and stability studies (transient, small signal, voltage) for integration of renewable energy resources

KEY SPEAKERS



DR. NILESH MODI, AUSTRALIA



**MR. PRADEEP REDDY
MANAGER, POSOCO**



**MR. PHANISANKAR CHILUKURI
MANAGER, POSOCO**

ORGANIZER



IN ASSOCIATION WITH



TUTORIAL CONDUCTED ON



ABOUT INTERNATIONAL SPEAKERS



Dr. Nilesh Modi is a Principal Engineer at AEMO. He has been with AEMO since 2012 and worked across various teams including planning, markets and operations. Nilesh has been involved in various key projects/documents published by AEMO, namely the review of the South Australian (SA) system black event, system strength assessments for South Australia, the review of under-frequency load shedding design for SA, the system integrity protection scheme for SA, system strength requirements, inertia requirement methodology and large scale EMT modeling of the grid. Nilesh received his PhD from the University of Queensland, where he was awarded the Dean's Excellence Award for RHD Excellence. He is recipient of Energy Systems Integration Group (ESIG) Excellence Award. Nilesh is an active member of CIGRE. Recently he has contributed in developed joint C2/C4 technical brochure on 'Impact of High Penetration of IB Generation on Inertia'. Nilesh is a senior member of the IEEE and also an adjunct research fellow at the University of Queensland, Australia.



Pradeep Reddy is working as Manager (Reliability) at Southern Regional Load Despatch Centre, which is responsible for the integrated operation of the power system in the Southern Region. He obtained his Bachelor's degree in Electrical Engineering from Kakatiya University in 2007 and Master's degree in Power Systems from Indian Institute of Technology, Delhi in 2009. He joined POWERGRID in 2010 and worked at National Load Despatch Centre in System Studies department from 2011-2017. From 2017, he is working at SRLDC. He was involved in carrying out the Grid disturbance analysis of 30th and 31st July 2012 in India, NEW Grid and SR Grid Synchronization studies for National Grid, Planning Studies for Evacuation of Hydro Power from Bhutan to India, Planning studies for evacuation of power from India to Bangladesh, Planning Studies for Power Transfer from India to Nepal. He is skilled in carrying out the Power flow studies, Stability Studies in PSS®E and has provided PSS®E training to around 200 participants all over India. He is a proficient user of PSS®E, PSCAD, POWERWORLD and GAMS. At present, he is involved in carrying out the RE Integration studies and Optimal Power Flow (OPF) Studies.



Phanisankar Chilukuri is Manager (System Studies) at National Load Despatch Centre, POSOCO, which is the national power grid system operator of India. He obtained his Master of Technology degree in Power Systems from Indian Institute of Technology, Delhi in 2013 and has joined POSOCO since his graduation. He played a vital role in the conceptualization and in-house implementation of security constrained economic dispatch (SCED) pilot project in Indian power system, which lead to national savings of more than 10 billion rupees during April 2019 – March 2020. He was the lead engineer in the team which completed automatic generation control (AGC) pilot project in India connecting 5 GW, and is presently working with a diverse team for implementing secondary frequency control through AGC pan India, controlling around 70 GW. He is skilled in power flow studies, available transfer capability (ATC) assessment, reliability assessment, PSS/E, GAMS, MATLAB/SIMULINK and transient stability studies. He is passionate about creating and adopting sustainable, low-cost eco-friendly solutions.

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.

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Category	Charges in INR	
	Members (CBIP/CIGRE)	Non Members
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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	750/- per login	
First 25 students will be given one year membership of CIGRE to have access to 10,000 Technical Report 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.

ADDRESS FOR CORRESPONDENCE

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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;
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