The Institution of Engineering and Technology

RPG 2025

Invited Session Call for Papers

The 14th International Conference on Renewable Power Generation

24-26 October 2025 | Shanghai, China

Full Paper Submission Deadline: 05 June 2025 | https://rpg2025.theiet.org.cn/

Session Chair:

- Dr. Fazel Mohammadi, University of Windsor, Windsor, Canada

Invited Session on:

05 Control, Operation, and Protection of HVDC Grids for Renewable Power Integration

High Voltage Direct Current (HVDC) power transmission is a promising solution to integrate multi-grid renewable energy systems. Indeed, the security, adequacy, and reliable operation of multi-grid renewable energy systems depend on considering practical aspects, as well as economic and environmental impacts, of HVDC grids' interconnection. However, the interconnection of HVDC grids results in a number of critical technical challenges related to the control, operation, and protection, which should be properly addressed. Improvement and development of the advanced control and protection schemes are the main solutions to address such challenges in HVDC systems without changing the overall efficiency and reliable operation of power systems. This invited session expects to receive papers on the control, operation, and protection of current HVDC and future HVDC grids for renewable power integration since these issues should be well-analyzed for the investigation of state-of-the-art solutions to the relevant challenges. Topics of interest include, but are not limited to, the followings:

- Optimal Operation of Multi-Terminal HVDC Grids for Renewable Power Integration
- Control of HVDC Grids for the Provision of Ancillary Services and Grid Code Compliance
- Protection Approaches of HVDC Grids
- Flexible Power Flow Control in HVDC Grids
- MMCs and DC Power Converter Topologies and Technologies for HVDC Applications
- Advances in DC Breakers
- Interaction of HVDC Grids with the AC Systems
- Real-Time and Offline Simulations Tools

Session Chair: Dr. Fazel Mohammadi, University of Windsor, Windsor, Canada

Chair's Bio:

Dr. Fazel Mohammadi received the Doctorate degree in Electrical Engineering from the University of Windsor, Windsor, ON, Canada. He is an Assistant Professor with the Electrical and Computer Engineering and Computer Science Department, University of New Haven, West Haven, CT 06516 USA. Dr. Mohammadi is the founder and director of the Power and Energy Systems Research Laboratory (PESRLAB). Dr. Mohammadi is a Licensed Professional Engineer (P.Eng.) in Ontario, Canada, a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), and an active member of the International Council on Large Electric Systems (CIGRE) and the Institution of Engineering and Technology (IET). Based on the Web of Science yearly records, since 2019, Dr. Mohammadi has been the first-rank reviewer in the fields of power systems and power electronics in Canada and the world. Dr. Mohammadi has also been recognized among the World's Top 2% of Scientists, ranked by Stanford University and Elsevier (Scopus) in 2023 and 2024. Dr. Mohammadi is an Associate Editor of the IET Renewable Power Generation journal, IET Blockchain journal, and Elsevier ePrime–Advances in Electrical Engineering, Electronics and Energy journal. He is also a Section Editor of the Advances in Electrical and Electronic Engineering journal and an Editorial Advisory Board Member of the Journal of Intelligent and Fuzzy Systems. His research interests include power and energy systems, high voltage engineering, power electronics, and smart grid.

BENEFITS OF SUBMITTING

- Successful Authors will receive **10% off the Adult Registration Fee** (early bird or standard registration) Please use code **INVITED25** during registration
- Accepted paper will be published in the RPG 2025 conference proceeding
- Accepted paper will paper published on **IET Digital Library** and indexed by **IET Inspec, Scopus, IEEE Xplore and Ei Compendex**
- Around 30 papers from the conference will be awarded the Best Conference Paper prize and will be invited to submit an extended version to IET renewable Power Generation Journal (open access journal, APC fee applies)

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