

**IEEE CPE-POWERENG 2024**  
**18<sup>th</sup> International Conference on Compatibility,  
Power Electronics and Power Engineering June 24 -  
26, 2024 – GDYNIA, Poland**

**Special Session on**

**“High Frequency Resonant Converters for Electric  
Vehicles”**

**Principal Organizer:**

First name: Veerpratap

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Affiliation: Chair, Systems Education Technical Committee, IEEE Systems Council, USA



**Veerpratap Meena (M21, IEEE)** graduated from Govt. Engineering College, Bikaner, India in 2018 with B.Tech. Degree in Electrical Engineering. He received an M.Tech. Degree in Power System Engineering from the Indian Institute of Technology Roorkee (IIT Roorkee) in 2020. He received a Ph.D. Degree in Electrical Engineering from Malaviya National Institute of Technology (MNIT), Jaipur, India in 2023. Currently, he has been working as Chair at IEEE Systems Council Systems Education Technical Committee, USA since 2023. His research interests include electric vehicles, power systems, system modeling, controller design, interval systems, model order reduction, applications of optimization algorithms, and power electronics. He contributed to the body of knowledge by publishing several research papers in international journals and conferences. Also, he has served as General Chair, Program Chair, and Program Committee member of several international conferences and workshops. He is currently a Member, of IEEE. He is Chair of the IEEE student branch at Malaviya National Institute of Technology Jaipur. He is an Associate Editor IEEE ACCESS.

**Co-organizer 1:**

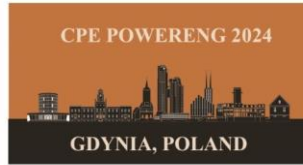
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**Sanjeevikumar Padmanaban** (Member'12–Senior Member'15, IEEE) received a Ph.D. degree in electrical engineering from the University of Bologna, Bologna, Italy 2012. He is a Full Professor in Electrical Power Engineering at the Department of Electrical Engineering, Information Technology, and Cybernetics, University of South-Eastern Norway, Norway. S. Padmanaban has authored over 750+ scientific papers and received the Best Paper cum Most Excellence Research Paper Award from IET-SEISCON'13, IET-CEAT'16, IEEE-EECSI'19, IEEE-CENCON'19, and five best paper awards from ETAEERE'16 sponsored Lecture Notes in Electrical Engineering, Springer book. He is a Fellow of the Institution of Engineers, India, the Institution of Electronics and Telecommunication Engineers, India, and the Institution of Engineering and Technology, U.K. He received a lifetime achievement award from Marquis Who's Who - USA 2017 for contributing to power electronics and renewable energy research. He is listed among the world's top 2 scientists (from 2019) by Stanford University USA.

He is an Editor/Associate Editor/Editorial Board for refereed journals, in particular the IEEE SYSTEMS JOURNAL, IEEE Transaction on Industry Applications, IEEE ACCESS, *IET Power Electronics*, *IET Electronics Letters*, and *Wiley-International Transactions on Electrical Energy Systems*, Subject Editorial Board Member—*Energy Sources—Energies Journal*, MDPI, and the Subject Editor for the *IET Renewable Power Generation*, *IET Generation, Transmission and Distribution*, and *FACETS Journal* (Canada).

### Co-organizer 2:

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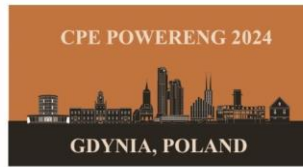
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**V. P. Singh (SM21, IEEE)** graduated from Uttar Pradesh Technical University, Lucknow, India in 2007 with B.Tech. Degree (Honours) in Electrical Engineering. He received M.Tech. Degree in Control and Instrumentation and Ph.D. Degree in Electrical engineering in 2009 and 2013, respectively, from Motilal Nehru National Institute of Technology, Allahabad, India. Currently, he is working as Assistant Professor at Malaviya National Institute of Technology, Jaipur, India since 2019. He also served National Institute of Technology Raipur as Assistant Professor from 2013 to 2019. His research interests include system modelling, model order reduction and applications of optimization. He has published several articles in international and national journals and conferences. He is currently Senior Member, IEEE. He is faculty advisor of IEEE student branch at Malaviya

National Institute of Technology Jaipur. During his tenure at faculty advisor, he established five new IEEE students' chapters and organized 17 guest lectures from IEEE students' chapters. Along with these, he is currently holding faculty advisor of IEEE Systems, Man and Cybernetics Society, IEEE Systems Council, and IEEE Council on Electronic Design Automation.





### Co-organizer 3:

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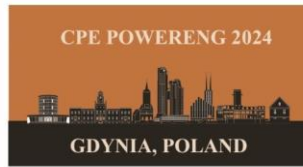
**Kumari Namrata (M12, IEEE)** received her Ph.D. from the National Institute of Technology Jamshedpur, India in 2017 followed by M.tech (Power System) from NIT Jamshedpur and B.Tech from the National Institute of Technology, Patna. She is an Associate Professor in the Department of Electrical Engineering at NIT Jamshedpur. She has more than 23 years of experience in academics and research. She has published more than 80 research papers in quality journals and international conferences. She has served at several international conferences as session chair, advisory committee member, and technical committee member. She is the editor of various books of reputed publishing house. She is the PI and Co-PI of many projects and patents. She has organized several conferences, workshops and short courses. She is also life member of The Indian Society

for Technical Education – Life (LM 28774). She has also reviewed articles in journals including IEEE System, IEEE Access, Applied Energy, Solar Energy, and Energy. She received the best poster award at Milwaukee, USA from ICREA in 2014. Her research interest includes Machine Learning, Techno economic Analysis of Renewable Energy System, Solar Power Generation and Conversion, Solar Radiation Estimation, Modeling and Simulation of Renewable Energy-Based System, Microgrid-Modeling Operation and Control, Hybrid Energy System, & Forecasting Renewable Power System Energy Management. She has held academic and administrative responsibilities like the coordinator of the NBA team, Faculty advisor of various batches of B.Tech and M.Tech students of Electrical Engineering, Member of the Departmental Purchase Committee, Faculty charge of the institute’s annual magazine ‘MANTHAN’, and served as Associate Dean Student Welfare (2019-2022).

## Call for Papers

Traditional converters face significant switching losses during power transfer, necessitating large heat sinks. Resonant power converters, with their resonant L-C networks, exhibit sinusoidal voltage and current waveforms, reducing stress on power electronics switches. This, coupled with the use of circulating current during switching dead-time, minimizes stress on devices designed for high di/dt or dv/dt. Resonant converters, categorized as zero Voltage and Zero Current, find diverse applications, from electric vehicles to renewable energy systems. Their growing importance in commercial and industrial power units is evident, supported by advanced control algorithms. A Special Issue seeks original research on resonant converters, controllers, and applications, anticipating the field's growth. Selected papers will undergo rigorous peer review for rapid





dissemination of research advancements.

I am writing to invite you to submit your original work to this Special Issue and I look forward to receiving your outstanding research.

**Topics of interest include, but are not limited to:**

1	Resonant converters for electric vehicle applications, switching mode power supplies
2	The integration of renewable energy technologies into the grid
3	Resonant converters for industrial applications, Renewable energy conversion
4	Modulation techniques for advanced resonant converters
5	Design Methodologies of Resonant Tanks for High Efficiency
6	Power Loss Analysis in LLC Resonant Converters, Energy-storage technologies
7	High-Frequency Magnetics in LLC Resonant Converters
8	Wide Band-gap Devices Applied to LLC Resonant Converters
9	Advanced Control Algorithms for LLC Resonant Converters
10	New trends and technologies for resonant converters;
11	Multilevel resonant converter topologies

**Submissions Procedure:**

All the instructions for paper submission are included in the conference website:

<https://cpe-powereng2024.umg.edu.pl>

**Deadlines:**

- Full paper submission: 14 January, 2024
- Notification of acceptance: 5 April, 2024
- Final paper submission and early bird payment deadline: 16 May, 2024

