



SPECIAL SESSION SS05

2020 IEEE 19th International Power Electronics and Motion Control Conference (IEEE-PEMC 2020) will include Special Sessions, which are organized on highly specialized topics within conference scope that were not included in the previous editions of the conference. The organizers of those sessions must observe the scope of the conference and submit session proposal to the Conference secretariat for acceptance. Please provide data of the session included in the form below. At least one (and max. two) session organizer is required to provide contact data and short biography.

Session details:

Session title: Efficient DC-DC Converters with Smart Control for More Electric Vehicles and Renewable Energy Configurations

<p>Session description (session scope, novelty, goals; 100-200 words):</p> <p>The advent of Renewable Energy Sources (RES) and Electric Vehicles (EV) has seen a rapid rise in the deployment of power electronics solutions. DC-DC converters offer an excellent solution in converting the raw dc power into an efficient dc power with required power ratings. These converters can charge the EV batteries with high efficiency and harvest maximum power from the PV and Wind energy. Further research on DC-DC converters are evolution of converter topologies and control schemes for wide variety of application with RES and EV. Topics of interest include the following but not limited to: i) DC-DC Converters Topologies, ii) Control Scheme for DC-DC Converters, iii) DC-DC Converters for RES applications, iv) DC-DC Converters for EV application, v) Grid connected and Standalone application of DC-DC Converters, vi) Micro grid and Nano grid applications of DC-DC Converters</p>	<p>Keywords, topics:</p> <p>New DC-DC Converters Topologies Control Scheme for DC-DC Converters DC-DC Converters for RES applications DC-DC Converters for EV application Grid connected and Standalone application of DC-DC Converters Micro grid and Nano grid applications of DC-DC Converters</p>
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Organizer(s) details:

First (main) organizer (title, name and surname): <u>Mr. Partha Sarathi Subudhi</u>	
E-mail: <u>parthasarathi.subudhi@ieee.org</u>	Affiliation: <u>Vellore Institute of Technology, Chennai, Tamil Nadu, India</u>
Short bio: <u>Partha Sarathi Subudhi, (MIEEE) received his B.Tech. degree in Electrical Engineering from Konark Institute of Science and Technology, Biju Patnaik University of Technology, Bhubaneswar, India in 2012 and M.Tech. degree in Power Electronics and Drives from Vellore Institute of Technology, Chennai, Tamil Nadu, India in 2015. He is currently Research Associate with School of Electrical Engineering at Vellore Institute of Technology, Chennai, Tamil Nadu, India. His field of interest includes Power electronic converters, Wireless Power Transfer, Electric Vehicle battery charging applications, Multilevel Inverters. He has published several conferences and referred journals on wireless power and multilevel inverters.</u>	
Second (optional) organizer (title, name and surname): <u>Dr. Sanjeevikumar Padmanaban</u>	
E-mail: <u>san@et.aau.dk</u>	Affiliation: <u>Dept of Energy Technology, Esbjerg, Aalborg University, Denmark.</u>
Short bio: <u>Sanjeevikumar Padmanaban (M'12-SM'15, IEEE), received the bachelor's degree in electrical engineering from the University of Madras, India, 2002, the master's degree (Hons.) in electrical engineering from Pondicherry University, India, 2006, and the Ph.D. degree in electrical engineering from the University of Bologna, Italy, 2012. He served as an Associate Professor with VIT University from 2012 to 2013. Also, he served as the Faculty with the National Institute of Technology, Pondicherry in 2013. During 2014, he visited as invited research fellow to Qatar University, funded by Qatar National Research Foundation, also Lead Researcher, Dublin Institute of Technology, Ireland from March 2014 to September 2014. Further, he served as the Project Lead/Head Ohm Technologies, Chennai from September 2014 to September 2016. From October 2016 to February 2018, he served as Associate Professor with the Department of Electrical and Electronics Engineering, University of Johannesburg, South Africa. From March 2018, he is with the Department of Energy Technology, Aalborg University, Esbjerg, Denmark as faculty.</u>	

