



SPECIAL SESSION SS04

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: <u>Multilevel Inverters: New Topologies, Advanced Modulation Schemes and Applications</u>	
Session description (session scope, novelty, goals; 100-200 words): Multilevel Inverters are seen as a welcome revolution in the field of DC to AC power conversion. The drawbacks of conventional two and threelevel inverters operating at very high frequencies were observed by the research community. This lead to the improved class of inverters named as Multilevel Inverters (MLI). The MLIs can be operated under high and low switching frequencies without affecting the power quality which is a unique feature of it. The emergence of solar power has increased the significance of MLI which can be operated as a standalone system. The MLIs are also widely used in induction motor drives.	Keywords, topics: New ... Multilevel ... Inverter ... Topologies; Modular ... MLI ... Topologies; ... Modulation Schemes ... in ... MLI; ... Renewable ... Energy Integration with ... PV ... System; ... Multilevel Inverters for Induction Motor Drives; MLI topologies in Electric Vehicle charging system; Fault Tolerant MLI Topologies; Redundant MLI Topologies; MLI Topologies for Standalone and Grid Connected System

Organizer(s) details:

First (main) organizer (title, name and surname): <u>Mr. A Rakesh Kumar</u>	
E-mail: <u>rakesh.a@ieee.org</u>	Affiliation: <u>Research Fellow, Department of EEE, National Institute of Technology, Tiruchirappalli, India</u>
Short bio: <u>Rakesh Kumar A, (MIEEE) completed his BE in EEE and M. Tech in Power Electronics and Drives from Anna University, Chennai, India in 2011 and 2013 respectively. He worked as Assistant Professor from Dec 2013 to May 2015 with Electrical department at Rajalakshmi Engineering College, Chennai. He joined for full time Ph.D at VIT University, India from 2015 to 2019. Currently he is with the department of EEE, National Institute of Technology, Tiruchirappalli as research fellow. He has published various conferences and referred journals on multilevel inverters. He is a member of IEEE.</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.</u>	

