

# **2022 International Conference on Intelligent Controller and Computing for Smart Power (ICICCSP)**

*A Special Session on*

## **Innovative models and Applications for future smart grids, Energy systems and Electric Vehicle Technologies**

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### **Aims & Scope:**

The advancement in power systems for the future smart grid is highly essential as the present technologies will become outdated very soon. The advancement in power electronics technologies is already playing a significant role towards the development of an intelligent and highly advanced grid. From the past few years researchers have focused on the development of technologies to improve the performance and efficiency of the energy systems at transmission and distribution level. The recent advances mainly include power quality improvement, harmonic reduction, EV Technology and EV integration to grid, renewable energy and energy storage integrated systems. The session aims at bringing the innovation/advancement related to the applications of the power systems/Energy systems/Electric Vehicle Technology towards Smart grid to solve complex problems at various level such as transmission, distribution and demand levels and also in the area of integration of renewable energy sources, energy storage systems and EV batteries to the grid. It will also provide comprehensive solutions and innovations for the advancement of smart grid.

### **Subtopics:**

- Integration of renewable energy systems
- EV integration to grid (V2G)
- Control of distributed energy systems
- Micro grid/Smart grid control
- Efficient Power electronics converters
- Soft computing techniques
- Electric Vehicle Technology
- Energy Management Technology
- High Voltage applications to EV
- IOT Applications

## Details of Proposer:



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**Santanu Kumar Dash** received the B.Tech degree in Electronics from Biju Pattnaik University of Technology Rourkela in 2011 and M.Tech from Sambalpur University, Burla, India in 2013. He has received the Ph.D. degree in Electrical Engineering from National Institute of Technology Rourkela, India in 2019. His research interest include power quality, grid connected systems, distributed generations and embedded system application for power converter control. He has published his research articles in many IEEE Transactions, SCI and Web of Science International Journals. He is also one recognized reviewer for many reputed International Journals like IEEE Transactions on Industrial Electronics, IEEE Access , IEEE , International Journal of Electrical Power and Energy Systems, **Elsevier** International Journal of Electric Power Components and Systems, **Taylor and Francis** International Transaction of Electrical Systems, Wiley, International Journal of Electronics, **Taylor and Francis** , International Journal of Emerging Electric Power Systems, **DE GRUYTER** . He is currently working as Senior Assistant Professor in Vellore Institute of Technology, Vellore, India.



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**Michele Roccotelli** received the MEng degree in Automation Engineering from the Polytechnic of Bari in 2010. He received the Ph.D. in Electrical and Information Engineering from the Polytechnic of Bari, Italy (Apr. 2016). He has been a visiting scholar (Jan. 2015-Jul. 2015) at the École Normale Supérieure de Cachan, Paris, France. He is currently an Assistant professor at Polytechnic of Bari, at the Department of Electrical and Information Engineering. His research interests include energy efficiency systems, models and strategies for smart grids and smart buildings, electric mobility systems and services. Dr Roccotelli has been **member of the program committees** of several international conferences such as **IEEE SOLI 2017, IEEE CoDIT 2019, 2020, IFAC Wodes 2020 and in the organizing committee of the IEEE SMC 2019**. His industry experience includes an internship at AVIO Spa (May 2011-Oct. 2011) as test engineer of electromagnetic machines for high frequency applications on aircrafts and an internship at BAUTECH Srl (Feb. 2012-Sep. 2012) as building automation technologies and software developer.

Dr. Roccotelli was involved in **two H2020 EU funded research and innovation projects in the electromobility field**: 1) **NeMo** – HyperNetwork for electromobility (RIA, 2016-2019, <https://nemo-emobility.eu/>); 2) **ELVITEN** - Electrified L-category Vehicles Integrated into Transport and Electricity Networks (IA, 2017-2020, <https://www.elviten-project.eu/en/>).

He is currently involved in the research and innovation **EU project “eCharge4Drivers - Electric Vehicle Charging Infrastructure for improved User Experience”** <https://echarge4drivers.eu/>, which focuses on the EV user needs aiming at improving the charging experience within cities and on long trips.