

Australian NSW Universities Symposium on Sustainable Electrical Energy Systems

1st December 2022

Time	Sessions	
9:30 AM – 10:00 AM	Registration	
10:00 AM – 10:45 AM	Industry Talk by Dr. CFMS Reza	
10:45 AM – 11:00 AM	Morning tea	
	Session I (Oral Presentations)	Title
11:00 AM – 11:12 AM	Md. Biplob Hossain	Proton Exchange Membrane Electrolyzer Grid-Scale Electrical Equivalent Circuit Modeling for Grid Frequency Regulation
11:12 AM – 11:24 AM	Yumeng Tian	Evaluation of arm reliability in MMC for MVDC Applications
11:24 AM – 11:36 AM	Derick Lima	Optimal planning and operational strategy for biogas power generation system design in wastewater plant
11:36 AM – 11:48 AM	Pingyang Sun	Decoupled Sequential Power Flow Study in MT-MVDC Distribution Systems based on Novel NR/Estimation Correction Algorithm
11:48 AM – 12:00 PM	Mahbubur R Kiran	Improvement in the Power Transfer Capability of Multi-Winding High Frequency Magnetic Linkswith Interleaved Winding Topology
12:00 PM – 01:00 PM	Lunch	
01:00 PM – 02:00 PM	Session III (Posters)	Title
	Efaf Bikdeli	Reconfiguration of a five-level Active Neutral Point Clamped Inverter for Fault Tolerant Capability
	Ye Zhu	Impedance Shaping Effects and Stability Assessment of Circulating Current Control Schemes in Modular Multilevel Converters
	IMM Serajul Haque	Reliability and Efficiency Enhancement of Energy Conversion in High Power High Frequency Renewable Technologies, Storage and Electric Vehicle Applications
	jiatong Wang	
	Abdur Rahman	Performance analysis of MPC-based Zero Sequence Current Controllers in an Open-Winding PMSM
	Jiexiang Wu	Optimal incentives to balance the profits of electricity retailers and the electricity costs of customers
	Zhiwei Shen	Development of Power System Models for Distributed Real-time Simulations
	Yunfeng Lin	Scenario-based Model Predictive Control Approach in an Australian Cotton Farm Microgrid
	Zixuan Fang	Phase-Shifted TAB Converter System for Electric VTOL Aircraft
	Jiwen Qi	Economic Operation of an EV Parking Lot under Different Operation Modes
	Hossein Rahimpour	Security for Smart Transformers Bolstered by Machine Learning
	Hamidreza Shafei	Monitoring, estimation and robust control of microgrids for safe operation
	Ahmed Musleh	Cybersecurity Analysis of DERs: Potential threats and Countermeasures
	Zhipeng Qi	Model Predictive Control of Multiport Magnetic Linked Converter

	Vani Varanasi	Design and modelling of Hydrogen based hybrid power cycle and microgrid for remote mining
	Boyang Hu	Large Scale EV Charging: Challenges and Opportunities
	Pablo Poblete	Advanced Power Control System For Enhancing Second-Life Battery Energy Storage Systems Integration and Reliability
	Session II (Oral Presentations)	Title
02:00 PM – 02:12 PM	Maysam Abbasi	Design of Reliable Power Converters with Wide, Dynamic, and High Voltage Conversion Ratio for Renewable Energy Applications
02:12 PM – 02:24 PM	Lei Wang	Active Power Decoupling Integrated Active Clamp Flyback Converter
02:24 PM – 02:36 PM	Boyu Liu	Multi-objective Optimal Operation of Desalination Hydrogen System Powered by Hybrid Renewable Energy Sources
02:36 PM – 02:48 PM	Wanrong Li	A Revisit to Model-Free Control: Towards Controller Design Automation of Power Electronics
02:48 PM – 03:00 PM	Md. Sanwar Hossain	Renewable Energy Integrated Hydrogen-Fuel-cell: A Step Towards the Green Power
03:00 PM – 03:15 PM	Afternoon Break	
03:15 PM – 03:30 PM	Symposium closing and award winner's announcement	