ICDCM 2021 Technical Paper Presentation Sessions

July 19th, 2021

TS	TS1: DC Circuit Breaker I		
Time slot	12:20-13:05 (EDT)		
Session Chair	Pavel Purgat, EATON Hendrik Koepf, E-T-A		
Presenter	Phuong Hoang	Clemson University	Integrating Degradation Forecasting Into Control and Management System of DC Microgrids
	Shuyan Zhao	Drexel University	MOV-RCD Snubber Design for Medium-Voltage SiC-Module Based Solid-State DC Circuit Breaker
	Guowei Ge	Zhengzhou University	Topology and Parameter Design of the Resistance-Capacitance Hybrid DC Circuit Breaker with Coupling Reactors

TS	TS2: Power Converter I		
Time slot	12:20-13:05 (EDT)		
Session Chair	Daniel Costinett, University of Tennessee, Knoxville Zian Qin, Delft University of Technology		
Presenter	Masahito Honda	Kanazawa Institute of Technology	DC Microgrid Experimental System at Kit and its Autonomous Distributed DC Voltage Control Method
	M A Moonem	The University of Texas at Austin	Secure Data Communication Through Power Electronic Converters in a dc microgrid
	Hesamoddin Mazaheri Tehrani	Universidad Politecnica de Madrid	Blackbox Equivalent Switching Model Identification of DC-DC Power Electronic Converters Using Optimization Algorithms

TS	TS3: Energy Router and Power Flow		
Time slot	12:20-13:05 (EDT)		
Session Chair	Xiaonan Lu, Temple University Tiefu Zhao, UNC Charlotte		
Presenter	Linfeng Sun	Yangzhou University	Multi-Port Energy Router for DC Grid Clusters
	Yang Zhou	Harbin Institute of Technology	Optimal Power Flow Scheduling Strategy for Multi-Microgrids with Multi-Time Scale Method
	Zheqing Li	Virginia Tech	Evaluation of Double-Line-Frequency Power Flow in Solid-State Transformers

TS	TS4: EMI and Reliability		
Time slot	13:15-14:00 (EDT)		
Session Chair	Xianyong Feng, UT-Austin Ruirui Chen, University of Tennessee, Knoxville		
Presenter	Hossein Haghnazari	Politecnico di Milano	Design of LVDC Bidirectional Hybrid Circuit Breaker
	Aditya Shekhar	Delft University of Technology	Common Mode Currents in DC Power Routers
	Tianchen Li	University of Wisconsin-Milwaukee	Reduction of Intra-System Common-Mode Electromagnetic Interference in Enclosed Wide-Bandgap Four-Pole DC-DC Boost Converter

TS	TS5: Energy Storage Systems		
Time slot	13:15-14:00 (EDT)		
Session Chair	Karl Schoder, Florida State University Tero Kaipia, Zero Hertz System		
Presenter	Ryo Wakabayashi	Hitachi Ltd.	Battery Control Algorithm with Voltage Command for Accurate Response to Imbalance of Electricity Supply and Demand
	Muhammad Mueed Ul Haq	Lahore University of Management Sciences	Detachable Lithium-Ion Starter Battery and Analog Battery Management System for ICE Vehicles
	Jing Zhang	University of Arkansas at Little Rock	Hierarchical Control of Distributed Battery Energy Storage System in a DC Microgrid

TS	TS6: Electrified Transportation		
Time slot	13:15-14:00 (EDT)		
Session Chair	Di Zhang, Naval Postgraduate School Zheyu Zhang, Clemson University		
Presenter	Le Kong	University of Tennessee, Knoxville	Comparative Study of Dynamical Requirement Impacts on System Design of Notional Aircraft Dc and Ac Electric Power Systems
	Qing Lin	Virginia Tech	Modeling and Impedance Specifications of a High Voltage DC Distribution System in More Electric Aircraft
	Naireeta Deb	Clemson University	Transformative Role of Silicon Carbide Power Electronics in Providing Low-Cost Extremely Fast Charging of Electric Vehicles

ICDCM 2021 Technical Paper Presentation Sessions

July 20th, 2021

TS	TS7: DC Circuit Breaker II		
Time slot	12:50-13:35 (EDT)		
Session Chair	Fei Lu, Drexel University Qin Lei, Arizona State University		
Presenter	Kenan Askan	Eaton Industries Austria GmbH	Variable Voltage IGBT Gate Driver for Low Voltage Hybrid Circuit Breaker
	Xin Li	ASTRI	An Ultra-Efficient and Low-Cost Solid-State Circuit Breaker for LVDC Microgrid Applications
	Jian Liu	Virginia Tech	Design and Comparison of Passive Gate Driver Solution for Series-Connected Power Devices in Solid-State Circuit Breaker Applications

TS	TS8: Modeling and Control I		
Time slot	12:50-13:35 (EDT)		
Session Chair	Daniel Opila, United States Naval Academy Dominic Gross, University of Wisconsin-Madison		
Presenter	Hanmei Yang	Southwest Jiaotong University	A new Algorithm Based on Photovoltaic Differential Power Processing Architecture
	Nikita Sevostyanov	Novosibirsk State Technical University	An Improved Droop-Control Strategy to Provide Flat Output Impedance of Power Converters in DC Microgrids
	Wasif Adnan	Ferroamp Elektronik AB	A Novel Coordinated Droop Control Strategy for Energy Management of a Multi-Terminal Low-Voltage DC-Nanogrid

TS	TS9: DC Microgrid Technologies		
Time slot	12:50-13:35 (EDT)		
Session Chair	Fang Luo, SUNY-Stony Brook Jonathan Kimball, Missouri S&T		
Presenter	Zhengda Zhang	Arizona State University	High-dv/dt-Immune Parameter-Adaptive Synchronous Rectifier (SR) Driving Scheme in High-Frequency High-Power-Density Applications
	Salisu Abdullahi	Fuzhou University	Novelty of Optimal Tracking Control for DC-Grid Voltage Estimation in DC-Microgrids
	Elliott Fix	Temple University	AI-Aided Region-Based Active Stabilization in Autonomous DC Microgrids

ICDCM 2021 Technical Paper Presentation Sessions

July 21st, 2021

TS	TS10: DC System Protection		
Time slot	11:20-12:35 (EDT)		
Session Chair	Lin Zhu, University of Tennessee, Knoxville Giel Vandenbroeck, DCINERGY		
Presenter	Jacques Julien Deroualle	Fincantieri SI S.p.a	Modeling of High-Speed Fuses for Selectivity Study in DC Shipboard Power System
	Christian Strobl	E-T-A GmbH	Linearized System and Fault Modeling Methods for DC-Grids Including Factorial Analysis
	Seongil Kim	Hyundai Electric & Energy Systems	Breakerless Protection for Voltage Source Converter-Based Marine DC Power Supply Systems
	Luis Zubieta	Emera Technologies	Protection Scheme for a Residential DC MICROGRID
	Yanjun Feng	Illinois Institute of Technol	Influence of DC Power System Parameters on Fault Interruption Characteristics of Electronically Assisted Circuit Breaker (EACB)

TS	TS11: Modeling and Control II		
Time slot	11:20-12:35 (EDT)		
Session Chair	Ali Davoudi, UT-Arlington Hao Tu, North Carolina State University		
Presenter	Marcello Neves	Federal University of Rio de Janeiro (UFRJ)	A Virtual DC Machine Control Strategy with Non Linear Behavior to Enhance Power Sharing and Voltage Regulation in DC Microgrids
	Andrea Alessia	University of Trieste	A Multi-Model Methodology for Stability Assessment of Complex DC Microgrids
	Paraskevi Vorropoulou	Technische Universitaet Berlin	Iterative Learning Control in prosumer-Based DC microgrids
	Liangliang Guo	Tsinghua University	A Load Converter Impedance Adjustment Method for Stability Improvement of DC Microgrids
	Pu Zhao	Xi'an Jiaotong University	An Adaptive Piecewise Droop Control Strategy for DC Microgrids

TS	TS12: Power Converter II		
Time slot	11:20-12:35 (EDT)		
Session Chair	Shuo Wang, University of Florida Erdem Asa, Oak Ridge National Laboratory		
Presenter	Yuliang Cao	Virginia Tech	DC Distribution Converter with Partial Power Processing for LV/MV DC Systems
	Feng Jin	Virginia Tech	A Three Phase CLLC Converter with Improved Planar Integrated Transformer for Fast Charger Applications
	Yang Zhou	Harbin Institute of Technology	A Novel Second Order Boost Converter with High-Gain and Low Switch Tube Voltage Stress
	Gabriel Broday	Concordia University	A Minimum Power Loss Approach for Selecting the Turns Ratio of a Tapped Inductor and Mode of Operation of a 5-Switch Bidirectional DC-DC Converter
	Yuqi Wei	University of Arkansas	A Simple Smooth Mode Transition Strategy for Resonant Converters with Topology Morphing Control in Renewable Energy Applications