2020 IAS Annual Meeting Final Program

Saturday, 10 October 2020
9:00am-2:00pm IAS CMD Department Meeting Chair: Leslie Arakkal, by invitation only
Sunday, 11 October 2020
IAS Chapters Workshop Session Chair: Leslie Arakkal
10:00am-3:00pm IAS Chapters and Membership Development Department
Chapters Workshop by invitation only
4:00pm-6:00pm PSP Main Committee Meeting [CMTE]

Monday, 12 October 2020
8:30am-10:45am ECCE Plenary Session
2020 IAS Annual Meeting Opening Session Session Chair: Wei-Jen Lee
2020 IAS Annual Meeting Chair, Wei-Jen Lee, Opening Remarks, 10 minutes
IAS President, Georges Zissis, welcome remarks, 15 minutes
11:00am-11:45am Presentation of 2020 Class of IAS Fellows, 10 minutes
CMD Awards, 10 minutes

6:00pm-8:00pm ILDC Committee Meeting Chair: Marco Dalla Costa
6:00pm-7:00pm IACC Department Meeting [CMTE]

Tuesday, 13 October 2020

C&S
Codes and Standards
#1
Session Chair: Steve Townsend
2020-CSC-1071 A
Comparative Study
On Voltage Level Standard For Dr
Residential Power Systems
Liang Li, School of Electrical Engineering, Shandong University; Ke-Jun Li, School of Electrical

ESC
EPC-1
Session Chair: Kelly Robinson
2020-EPF-1097
Event Detection and Recognition With Electric Field Sensors
Maciej Noras, UNC Charlotte
2020-EPF-1098
Corona Discharge
Offshore Wind Farms
Yuan-Kang Wu, National Chung-Cheng University; Guan-Liang Lu,

IACC
IACC-1 Control of Machines and Energy Sources I
Session Chair: Zhaohao Ding
2020-IACC-1088
Comparison of Communication-Based and Coordinated-Based Frequency Control Schemes For Hybrid-Connected Microgrid Based On Variable Speed Wind Turbine
Ghada Abdel Aziz, Electronics

IACC
IACC-3 Drives and Communication
Session Chair: Saleh Salhe & Sukumar Kamaladadan
2020-IACC-1192
Implementation of Rule-Based Approach For Power Management In Isolated Dr

ILDC-1
Session Chair: Kayo Suzuki
2020-ILDC-1161
MCM-Based Super-Capacitors With Dc-Connected Machines For Smart Grid Applications

Metals
Metals I
Session Chair: C. T. Liu
2020-METC-1065
Catastrophic Failure Prediction For Phase Control Thyristors In Ac Pulsed Power

Mining-1
Session Chair: Essam Elsahwi
2020-MIC-1069 A
Optimal Operation Of A Real Power Hub Based On Pvc/genset/bess and Demand

PSEC-1
Session Chair: Xiaodong Liang
2020-PSEC-1077
Effect of Stator Fault Currents On Rotor Permanent Magnets For A Smp-Type Bldc Motor

PSPC-1
Session Chair: S. A. Saleh
2020-PSPC-0984
Effect of Stator Fault Currents On Rotor Permanent Magnets For A Smp-Type Bldc Motor

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Govind Joshi, Colorado School of Mines; Salman Mohagheghi, Colorado School of Mines

2020-ESC-1017: Sizing and Siting of Distributed Cloud Energy Storage Systems For A Shipboard Power System

Kexing Lai, Kansas State University; Mahesh Illindala, The Ohio State University

Fayez El-Souy, Prince Sattam bin Abdulaziz University; Ghada Abdel Aziz, Electronics Research Institute; Mahmoud Amin, Manhattan College; Osama Mohammed

Step-Down Converter Based Current Balance Module

Yueshi Guan, Harbin Institute of Technology; Hongye Cai, Harbin Institute of Technology; Xiangjun Zhang, Harbin Institute of Technology; Yijie Wang, Harbin Institute of Technology; Dianguo Xu, Harbin Institute of Technology

Md Nasmus Sakib Khan Shabbir, Memorial University of Newfoundland; Xiaodong Liang, University of Saskatchewan; Weixing Li, Harbin Institute of Technology; Nahidul Khan, Newfoundland and Labrador Hydro

Mayur Basu, Auburn University; Vincentius Raki Mahindara, Institut Teknologi Sepuluh Nopember; Jinho Kim, Auburn University; Eduard Muljadi, Auburn University

Effect of High Penetrated Reactive Power Support Based Inverter-Based Resources On The Power Stability of Microgrid Distribution System During Faults

Ahmed Mohamed & Prof, Sukumar Kamalasadan

Yuxia Wang, Institute of High Technology; Wei Huawei, Institute of Technology; Dianguo Xu, Harbin Institute of Technology

Oled Luminance Prediction Using Impedance Measurements

Andrea Al Haddad, Laplace Université de Toulouse, INP

Md Nasmus Sakib Khan Shabbir, Memorial University of Newfoundland; Xiaodong Liang, University of Saskatchewan; Weixing Li, Harbin Institute of Technology; Nahidul Khan, Newfoundland and Labrador Hydro

Ozgul Salor 2020-METC-1056 Two-Dimensional Vector Hysteresis Modeling For Soft Magnetic Composite Materials Considering Anisotropic Property

Tiantian Zhang, Huazhong Univ. of Science and Technology

Carson Bates 2020-PSPC-0990 Optimal Design Method of Flexible Excitation System For Improving Power System Stability

Tiantian Zhang, Huazhong Univ. of Science and Technology

PSPC-2 Session Chair: Carson Bates

Fractal-Based Approach For Evaluating The Shielding Design of High Voltage Substations Against
Thursday, 15 October 2020

EPC

EPC-5
Session Chair: Noureddine Zouzou
2020-EPC-1131 A Two-Stage Elôd Gas Pump In A Square Channel With Electrodes Mounted On Two Opposite Facing Walls
S. C. Lin, National Taiwan University of Science and Technology; C. Y. Wu, National Taiwan University of Science and Technology; Y. J. Chang, National Taiwan University of Science and Technology; Feng C. Lai, University of Oklahoma
2020-EPC-1126 Ice Needle Nucleation and Dendrite Growth Under An Electric Field
Leandra Santos, GG & FG Associated Consulting; Douglas S. da Silva, University of Campinas; Andre Galembeck, Federal University of Pernambuco; Fernando Galembeck, University of Campinas
2020-EPC-1100 Study Of The Electrostatic Separation Of A Metal/polymer Mixture Based On Electro-Adhesive Force
Hamza Louati, Institut Pprime, CNRS, Université de Poitiers, ISAE-ENSMA; Rabah Ouididir, Mohamed Boudiafi University, USTMB; Noureddine Zouzou, Institut Pprime, CNRS, Université de Poitiers, ISAE-ENSMA; Amar Tilmatine, APELEC Laboratory, Djillali Liabes University

ESC

ESC-5
Session Chair: Mahesh S. Illindala
2020-ESC-1036 Increasing Grid-Connected Capacity Of Offshore Wind Farms For Isolated Power Systems A Case Study Of The Taiwan Power System
Ming-Tse Kuo, National Taiwan University of Science and Technology; Shih-En Chen, University of Oklahoma
Xiangchu Xia, North China Electric Power University; Kangping Li, North China Electric Power University; Fei Wang, North China Electric Power University; Zengqiang Mi, North China Electric Power University; Yulong Jia, North China Electric Power University; Yanwei Jing, HECIC New Energy Co., Ltd.
2020-EESC-1040 Multi-Stage Coordination Volt/var Control With Cvr In Active Distribution Network In Presence Of Inverter-Based Dr Units and Soft Open Points
Vijay Babu Pamshetty, Indian Institute of Technology (BHU) Varanasi; Shiv Pujan Singh, Indian Institute of Technology (BHU) Varanasi
2020-EESC-1042 Techno-Economic Analysis And Performance Evaluation Of IACC
IACC-11: MICrogird Management and Control II
Session Chair: Dr. Jeeyananand Seshadrinath & Dr. Vinod Khadkikar
2020-IACC-1217 An Accurate and Fast Device-Level Real-Time Simulation Of Modular Multi-Level Converter Hao Bai, FEMTO-ST Institute, Univ. Bourgogne Franche-Comté, UTBM; Chen Liu, Zhengzhou University; Qian Li, FEMTO-ST Institute, Univ. Bourgogne Franche-Comté, UTBM; Chen Liu, Zhengzhou University; Fei Gao, FEMTO-ST Institute, Univ. Bourgogne Franche-Comté, UTBM
2020-EESC-1218 Design and Implementation Of A Smart Solid-State Transformer Based Power Converter For Solar Pv System
Cameron Smith, Deakin University; Md Enamul Haque, Deakin University
2020-IACC-1220 A Novel Ep Architecture For 1u2u Cb Ecs With Enhanced Fault-Tolerant Capability
Amarendra Edupuganti, Khalifa University; Vinod Khadkikar, Khalifa University; Mohamed Elmoursi, Khalifa University; Hatem Zeinedlin, Khalifa University; Mohamed Al Hosani, ADDC
2020-IACC-1221 A Pv-Battery System Operating In Islanded and Grid Connected Mode
Jaafar Al, Khalifa University of Science and Technology; Zayed Alali, Khalifa University of Science and Technology; Khaled Al Awwal, Khalifa University of Science and Technology; Khaled Al Naftar, Khalifa University of Science and Technology
IASC-10: Advances in Power Electronics and Microgrid Control III
Session Chair: Dr. Ahmed Al-Durra & Dr. Braz Cardoso Filho
2020-IACC-1202 An Accurate Accelerated Steady State Model For Modular Multi-Level Converters With Very High Voltage Levels
Ramadhani Kurniawan Subroto, NTUST; Yi Chun Chen, NTUST; Kuo Ling Lian, NTUST; Chia Chi Chu, NTHU
2020-IACC-1203 Continuous Model Predictive Control Of Current-Fed Half-Bridge Isolated Dc/dc Converter
Zhuo Liang, School of Automation, Northwestern Polytechnical University; Dongdong Zhao, School of Automation, Northwestern Polytechnical University; Rui Ma, School of Automation, Northwestern Polytechnical University; Haiyan Li, School of Automation, Northwestern Polytechnical University; Adeniyi Ilugbahu, School of Automation, Northwestern Polytechnical University
2020-IACC-1204 A Novel High Gain Bidirectional Switched Converter
Anish Ahmad, Tezpur University; Balbanti Beig, Khalifa University of Science and Technology; Jamal Alasawali, Khalifa University of Science and Technology; Khaled Al Jaafari, Khalifa University of Science and Technology
2020-PSEC-1074 Power Grid Voltage Stability With High Penetration Of Solar Pv Systems
Sharmil Rahman, Deakin University; Saeedh Saha, Deakin University; Shama Islam, Deakin University; Mohammad Taufiqul Arif, Deakin University; Mehdih Mosadeghy, NOJA Power; Aman Oo, Deakin University; Enamul Haque, Deakin University
2020-PSEC-1075 A Smart Micogrid For Buildings Of The Public Administration
Luigi Martirano, University of Rome, DIAEE; Sara Rotondo, University of Rome, DIAEE; Matteo Manganelli, University of Rome, DIAEE; Mostafa Kermani, University of Rome, DIAEE
2020-PSEC-1076 A Case Study Of High Efficiency Lighting System With Advanced Control System
Luigi Martirano, University of Rome, DIAEE; Alessandro Ruvio, University of Rome, DIAEE; Matteo Manganelli, University of Rome, DIAEE; Federico Lettina, University of Rome, DIAEE; Andrea Venditti, University of Rome, DIAEE; Gianluca Zori, University of Rome, DIAEE
2020-PSEC-1078 A Spanning Tree-Based Genetic Algorithm For Distribution Network Reconfiguration
