

Symposium Program

Electrical, Electronics and Communications [EEC]

Symposium Chair: Tae(Tom) Oh (Rochester Institute of Technology)

Co-Chairs: Gon Namkoong (Old Dominion University), Jeong Nyeo Kim (ETRI)

| August 10, Thursday, 8:00-9:40 AM at Potomac II | |
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| EEC Session: IoT, Manufacturing and Image Processing | |
| Chair: Gon Namkoong (Old Dominion University) | |
| 8:00 AM | Automated Fuse Sewing Process for Shoe Manufacturing In Hoon Jang (KITECH) |
| 8:20 AM | Mobility-aware Vehicle-to-Grid (V2G) Optimization in Smart Grid based Power Distribution Network Muhammad Hussain (The City University of New York) |
| 8:40 AM | Hierarchical GM-PHD Filter for False Alarm Reduction in Search and Tracking Task Yoonchang Sung (Virginia Tech) |
| 9:00 AM | Quantifying the Consistency of Wearable Knee Acoustical Emission Measurements During Complex Motions Hyeon Ki (Georgia Institute of Technology) 3D-IC Chip Inspection Using GPU Acceleration Kyung-Chan Jin (KITECH) |
| August 10, Thursday, 8:00-9:40 AM at Potomac IV | |
| CIT/EEC Interdisciplinary Session: Cybersecurity | |
| Chair: Young Choi (Regent University), Co-Chair: Tom Oh (Rochester Institute of Technology) | |
| 8:00 AM | [Invited] Effectiveness of TM Forum and LoRa Alliance Resources Usage in Communications Security Research and Education Young Choi (Regent University) |
| 8:20 AM | Assembly Level Clock Glitch Insertion Attack into An XMEGA MCU Nigamantha Gopala Chakravarthi and Chansu Yu (Cleveland State University) |
| 8:40 AM | The Role of IT/IS in International Marketing Research: Antecedents, Processes, and Outcomes Jin Ho Kim (Old Dominion University) |
| 9:00 AM | Internet of Everything Security Threats Jungwoo Ryou (Pennsylvania State University-Altoona) |
| 9:20 AM | Increasing Efficiency of Android Malware Analysis Tae (Tom) Oh (Rochester Institute of Technology) |
| August 10, Thurs., 1:20-3:20PM at Potomac II | |
| EEC Session: Microelectronics I | |
| Chair: Jungkwun Kim (Kansas State University) | |
| 1:20 PM | [keynote] K-TAG and Global Collaborative Programs Hong Ryeol Choi (KIAT) |
| 1:40 PM | [Invited] A Body-Fluid Activated Paper Biobattery Seokheun Choi (Binghamton University) |
| 2:00 PM | Development of A Tilt-Rotational UV-LED Lithography for 3D Microstructures Jungkwun Kim (Kansas State University) |
| 2:20 PM | Drop-on-demand (DOD) Inkjet Printed Microelectrodes on Flexible Substrates and its Applications Yoontae Kim (Drexel University) |
| 2:40 PM | [Invited] Microneedle technologies for drug delivery Seong-O Choi (Kansas State University) |
| 3:00 PM | 77 GHz Through Glass Via (TGV) Antennas for Wireless Chip-to-Chip (C2C) Communications in 3D-SiP Seahee Hwangbo (University of Florida) |
| August 10, Thursday, 3:40-5:40PM at Potomac II | |
| EEC Session: Microelectronics II | |
| Chair: Jeong Bong Lee (The University of Texas at Dallas) | |

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| 3:40 PM | Physics based Modeling of Lithium Ion Polymer Battery and its Applications Song-Yul Choe (Auburn University) |
| 4:00 PM | [Invited] Flexible III-N Materials and Devices Jae-Hyun Ryou (University of Houston) |
| 4:20 PM | Integration of multi-color micro-LEDs for display applications Chang-Mo Kang (Gwangju Institute of Science and Technology) |
| 4:40 PM | Liquid Metal and Its Applications Jeong-Bong Lee (The University of Texas at Dallas) |
| 5:00 PM | [Invited] Plasmon Field Effect Transistor for Biomedical Sensing Platform Sung Jin Kim (University of Miami) |
| 5:20 PM | Energy System Optimization Using Harmony Search Zoong Woo Geem (Gachon University) |

August 11, Fri., 1:20-3:20PM at Potomac II
EEC Session: Optics/optoelectronics

Chair: Mun Seok Jeong (Sungkyunkwan University), Co-Chair: Jae-Hyun Ryou (University of Houston)

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| 1:20 PM | [Invited] Tip enhanced nano Raman scattering imaging of 2 dimensional nanomaterials Mun Seok Jeong (Sungkyunkwan University) |
| 1:40 PM | Review on Energy Harvesting for Implant Devices Dong S. Ha (Virginia Tech) |
| 2:00 PM | Investigation of charge carrier dynamics of perovskite solar cell application Gon Namkoong (Old Dominion University) |
| 2:20 PM | Flexible Thin-Film Transistors and Photovoltaic Solar Cells Based on Single-Crystal-Like Semiconductors Jae-Hyun Ryou (University of Houston) |
| 2:40 PM | [Invited] Neural Sensing, Optogenetic Stimulation and Electrical Impedance Tomography Imaging of Fast Neural Activity in the Brain Hargsoon Yoon (Norfolk State University) |
| 3:00 PM | Plasmon Enhanced Upconversion for Biomedical Applications Won Park (University of Colorado Boulder) |

August 11 Fri., 3:40-5:40PM at Independence A
EEC Poster Session

Chair: Tom Oh (Rochester Institute of Technology)

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| EEC-P01 | Quantifying the Consistency of Wearable Knee Acoustical Emission Measurements During Complex Motions Hyeon Ki (Georgia Institute of Technology) |
| EEC-P02 | 3D-IC Chip Inspection Using GPU Acceleration Kyung-Chan Jin (KITECH) |