Agenda for Cyber Resilient Electric Vehicle Charging Station & Critical Infrastructure Workshop

Location: UofM Engr Admin. Bldg. (Room EA – 203)
Date: Friday August 25, 2023
Time: 9:00 am - 5:00 pm

Time	Event
9:00 -9:30 am	Welcome Remarks (Dr. Okenwa Okoli, Dr. Stephanie Ivey)
9:30 - 9:40 am	Participants Introduction
9:40 - 10:30 am	Speaker- Mr. Ryan Stanton, Tennessee Valley Authority (TVA), Valley-wide Perspective on Electric Vehicles.
10:30 – 10:45 am	Speaker-Dr. Mohd Hasan Ali (UofM), Cyber Resilient Electric Vehicle Charging infrastructure.
10:45 - 11:00 am	Coffee Break
11:00 – 12:00 pm (noon)	Speaker-Dr. Prasad P. Calyam (University of Missouri-Columbia), A Case for Low Overhead Zero Trust to Protect Critical Edge Infrastructures.
12:00 pm - 1:00 pm	Lunch Break
1:00 – 2:00 pm	Speaker-Dr. Anurag K Srivastava (West Virginia University), Enabling Secure and Resilient Cyber-Power Critical Infrastructure.
2:00 – 2:15 pm	Speaker-Dr. Myounggyu Won (UofM), Intelligent Adaptive Electric Vehicle Motion Control for Dynamic Wireless Charging.
2:15 - 3:15 pm	Speaker-Dr. Mohammad Ashiqur Rahman (Florida International University), Artificial Intelligence-Driven Control-Aware Attack-Resiliency Analytics for Cyber-Physical Systems.

3:15 - 3:30 pm	Coffee Break
3:30 - 3:45 pm	Speakers-Elijah Durkee, Allison Plank, Arnab Das, Alexander Martin, and Noah Wargo (UofM), Cyber Resilient 5G-Enabled Electric Vehicle Charging Station.
3:45 - 4:00 pm	Speaker-Nathan Farrar (UofM), Dynamic Wireless Charging: Cyber Security and the Future of EV Charging.
4:00- 4:30 pm	Speakers- Mr. Jack O'Meara and Sagar Pathak (UofM), National Cybersecurity Preparedness Consortium Activities at the UofM.
4:30 – 4:45 pm	Questions and Answers Session
4:45 – 5:00 pm	Closing Remarks (Dr. David Russomanno, Dr. Dipankar Dasgupta)

Guest Speakers Bios:

Dr. Anurag K. Srivastava is a Raymond J. Lane Professor and Chairperson of the Computer Science and Electrical Engineering Department at the West Virginia University. He is also an adjunct professor at the Washington State University and senior scientist at the Pacific Northwest National Lab. He received his Ph.D. degree in electrical engineering from the Illinois Institute of Technology in 2005. His research interest includes data-driven algorithms for power system operation and control including cyber-resiliency analysis. Dr. Srivastava high impact research projects resulted in tools installed at the utility control center supported for more than $50M by US Department of Energy, National Science Foundation, Siemens Corporate Research, Electric Power Research Institute, Schweitzer Engineering Lab, Power System Engineering Research Center, Office of Naval Research and several National Labs. In past years, he has worked in a different capacity at the Réseau de transport d´électricité in France; RWTH Aachen University in Germany; PEAK Reliability Coordinator, Idaho National Laboratory, PJM Interconnection, Schweitzer Engineering Lab (SEL), GE Grid Solutions, Massachusetts Institute of Technology and Mississippi State University. He has delivered 30+ keynotes/ tutorials/ IEEE distinguished

lecture in more than 15 countries. He is an IEEE Fellow, member of several CIGRE WG and the author of more than 350 technical publications including a book on power system security and 3 patents.

Dr. Prasad P. Calyam is the Greg L. Gilliom Professor of Cybersecurity in the Department of Electrical Engineering and Computer Science at University of Missouri-Columbia, and Director of the Center for Cyber Education, Research and Infrastructure (Mizzou CERI). His research and development areas of interest include: Cloud Computing, Machine Learning, Artificial Intelligence, Cyber Security, and Advanced Cyberinfrastructure. He has published over 200 peer-reviewed papers in various conference and journal venues. As the Principal Investigator, he has successfully led teams of graduate, undergraduate and postdoctoral fellows in Federal, State, University and Industry sponsored R&D projects totaling over $30 Million. His research sponsors include: National Science Foundation (NSF), Department of Energy (DOE), National Security Agency (NSA), Department of State (DOS), Army Research Lab (ARL), VMware, Cisco, Raytheon-BBN, Dell, Verizon, IBM and others. His basic research and software on multi-domain network measurement and monitoring has been commercialized as 'Narada Metrics'. He is a Senior Member of IEEE. He currently serves as an Associate Editor for IEEE Transactions on Network and Service Management.

Dr. Mohammad Ashiqur Rahman is an Associate Professor in the Department of Electrical and Computer Engineering and the School of Computing and Information Sciences at Florida International University. He obtained a PhD in computing and information systems from the University of North Carolina at Charlotte (UNC Charlotte) in 2015. Previously, he received BS and MS in computer science and engineering from Bangladesh University of Engineering and Technology (BUET). Dr. Rahman's primary research interests cover a wide area of computer networks and cyber-physical systems (CPS). His research focus primarily includes computer and information security, risk analysis and security hardening, secure and dependable resource allocation, and distributed computing. His research is primarily funded by NSF, DOE, and DOD. He is currently leading multiple grants on CPS security. Dr. Rahman coauthored a book and several book chapters and published over 100 peer-reviewed journal and conference papers. He served on the organization and technical program committees (TPCs) for various IEEE and ACM conferences. He served as the TPC Co-Chair of IEEE/IFIP NOMS 2023.

Mr. Ryan Stanton is the senior project manager for the EV Evolution initiative with the Tennessee Valley Authority (TVA). In this role, Ryan focuses on research, innovation, and strategy for electric transportation, including how TVA can help remove market barriers to adoption of EVs while contributing to TVA's public mission of energy, environment, and economic development. Ryan leads research in the areas of EV adoption forecasting, medium- and heavy-duty fleet electrification, vehicle-to-grid technologies, and

emerging partnership opportunities with stakeholders.

Prior to joining TVA, Ryan led electric vehicle strategy and initiatives for the State of Tennessee's DOE-funded State Energy Office, at the Tennessee Department of Environment and Conservation (TDEC). While at TDEC, Ryan spearheaded new partnerships and initiatives to promote electric transportation for the State, including 1) a first-of-its-kind partnership with EV manufacturer Rivian to install over 100 EV chargers at all 56 Tennessee State Parks, 2) the establishment of Drive Electric TN, and 3) a partnership with TVA to jointly fund a statewide EV fast charging network to triple the State's number of existing DC fast chargers by adding 40 new locations.

Previously, Ryan spent a decade in the private sector working in the fields of software, smart cities, energy efficiency, and microgrids. Originally from the Pacific Northwest, Ryan earned his B.S. in general engineering from Gonzaga University and resides in Nashville.