

# IEEE Cyber PELS 2020

The 2nd IEEE International Workshop on Cybersecurity of Power Electronics Systems  
Miami, Florida USA  
April 14-16, 2020



Cyber PELS 2020 will be held on the campus of Florida International University (FIU), Miami, Florida, USA. Miami is a world class destination and the conference promises to be a great technical and social experience for all participants. FIU is one of the nation's largest public research universities which is located in the heart of this beautiful city.

The IEEE Workshop of Cybersecurity of Power Electronic Systems (CyberPELS) provides a common forum and networking platform for industry experts, researchers, and academia to share technology updates, research findings, lessons learned, and best practices in the areas of cyber-secure power electronic systems. Potential sponsors can follow up with the organizing committee for further details and request the sponsor and exhibitor flyer.

The role of power electronics in power delivery and industrial applications is changing from an enabling technology, often resorted to commodity hardware boxes and to a more critical infrastructure assets. Hence ensuring cyber security of power electronic converters is becoming increasingly important as more systems from power grid, electrified transportation, data centers, and internet-of-things (IoT) utilize power electronics with embedded sensors, communications, and control mechanisms through various wired and wireless technologies.

## Topics of Interest

- Firmware compromise detection and integrity verification.
- Hardening internal and external power electronics communications.
- Cyber-physical attacks and approaches for hardware hardening.
- Secure firmware update and patching, including over the air updates (OTAU).
- Secure designs for power electronics devices. Integration of hardware- and software-based hardening solutions.
- Prototypes, testbeds, and demonstrations. Application specific needs and approaches for secure power electronics hardware (e.g. in distributed energy resources (DER), electric vehicle charging infrastructure, and data centers).
- Device-level and system-level cybersecurity

TUTORIAL SESSIONS, KEYNOTE SESSIONS &  
PANEL SESSIONS: April 14 - 16, 2020

## CALL FOR PAPERS

Submit the two-page digests by **March 02, 2020** to the technical program chair Dr. Burak Ozpineci at [burak@ieee.org](mailto:burak@ieee.org). Selected digests will be invited to present at the workshop, and full papers will be indexed in IEEEExplore.

## ORGANIZING COMMITTEE

General Chair - Osama Mohammed, FIU  
Technical Program Chair - Burak Ozpineci, ORNL  
Publicity Chair - Xiaonan Lu, Temple University  
Local Arrangements - Hassan Eldeeb & Hadi Moradisizkoochi, FIU



**CYBER-PHYSICAL  
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