AVVISO DI SEMINARIO
Giovedì 29 maggio 2025, 13:30-15:30 – Aula B, Sede Didattica
Dipartimento di Ingegneria e Architettura
Università degli Studi di Parma

Title
Security Monitoring for Cyberphysical Systems

Abstract
Industrial control systems (ICS) control and manage a significant portion of critical infrastructure. As cyberattacks increasingly target critical infrastructure, ICS security and resilience are required to avoid catastrophic events that may lead even to loss of life. Importantly, ICS differ from traditional IT systems in several ways, from interacting with physical processes to requirements for continuous operation and real-time processing. In this talk, we present a behavior-based approach to the design of secure and resilient industrial control systems. Starting with a programmable specification of a control process, we develop executable code with specified security properties. Run-time middleware monitors the execution of the program, identifying behavioral deviations due to intrusions or process failures and leading to diagnosis and system recovery.

Bio of the Speaker
Dimitrios SERPANOS is President of the Computer Technology Institute and Press DIOPHANTUS and Professor of Electrical and Computer Engineering, University of Patras. He serves as Chair of the Scientific Council of the INSIDE Industrial Association. He has worked at IBM Research, on the faculties of the University of Crete and the University of Patras, as Principal Scientist at QCRI, as President of the University of Western Greece, and has served two terms as Director of the Industrial Systems Institute. He holds a Ph.D. in Computer Science from Princeton University. His research is in embedded systems, industrial systems and cybersecurity. Professor Serpanos has co-authored several books and published research work extensively. His research has been funded by both the European Commission, the Greek Government and industry in the EU and the USA.

Il seminario è tenuto nell'ambito del corso di Internet of Things (IoT). Per maggiori informazioni contattare il docente, prof. Gianluigi Ferrari (gianluigi.ferrari@unipr.it).