

ПЕРЕЧЕНЬ

ВОЗМОЖНЫХ ТЕМ ВЫСТУПЛЕНИЙ на вебинаре

«Киберфизические системы; общество 5.0; искусственный интеллект»***A- Multi-Domain Modelling, Simulation and Analytics***

- (1) Multi-domain modelling
- (2) Hardware in the loop simulation/emulation
- (3) Real-time/ High-Performance Computing based simulation/emulation
- (4) Machine learning techniques for modelling
- (5) Artificial Intelligence techniques for inference and understanding

B- Control, Optimization, Planning and Policy

- (1) Distributed and Hierarchical Control
- (2) Hybrid Systems Control
- (3) Model Predictive Control
- (4) Stochastic Control and Reinforcement Learning
- (5) Real-time optimization for control
- (6) Artificial Intelligence techniques for Reasoning and Planning
- (7) Distributed and collaborative autonomous systems
- (8) Policy-based control for Humans in the loop
- (9) Mechanism design and games for large-scale cyber-social systems
- (10) Control over Networks
- (11) Distributed signal processing and control over a network of resource challenged devices
- (12) Signal processing and control over wireless networks (with packet loss, and packet delay)

C- CPS Science

- (1) Complex Systems Science
- (2) Stability and Chaos
- (3) Emergent Properties
- (4) Human and Social Agents
- (5) Category theory and its applications for CPS
- (6) Mathematics for CPS

D - CPS Systems engineering

- (1) Co-engineering of Hybrid Systems
- (2) Safety & Reliability Engineering, Formal techniques for design and validation
- (3) CPS Security, device biometrics, information and data security
- (4) Distributed Programming Models, Distributed Run-time environments, Software development environments,
- (5) Real-time and Embedded Systems,
- (6) Low latency, large scale, reliable wireless communication
- (7) Sensing and Actuation Systems,
- (8) Energy efficiency and low power, low-cost electronics for CPS
- (9) Human-Cyber interfaces
- (10) Multi-dimensional sensing, Sparse sampling/Actuation, Feature/ Information sensing
- (11) Signal Processing Techniques
- (12) CPS Experimental Test Beds