

THE 4TH IEEE INTERNATIONAL CONFERENCE ON INDUSTRIAL CYBER- PHYSICAL SYSTEMS ICPS 2021

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Special Session on

“V-CPS Technologies and Applications”

Organized by

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Call for Papers

Vehicle-cyber-physical system (V-CPS), a distributed, interactional system that fuses advanced technologies of computational processes with the physical devices, delivering great potential for development of smarter, more efficient, and sustainable transportation. There is an increasing trend towards V-CPS of multidisciplinary integration which requires highly integration of mechanical, electrical, electronic, control and information advances. This further offers ample prospects for the integration of various electromechanical and networked components and subsystems, towards enhanced safety and intelligentization of ground mobility.

The aim of this special session is to compile recent research and development efforts contributing to advances in V-CPS with their applications in vehicle electrification and intelligence. The special session will also welcome contributions addressing the state-of-the-art of V-CPS in associated developments, methodologies, and the perspectives on future developments and applications.

Topics of interest include, but are not limited to:

- Dynamic modeling, control and state estimation of V-CPS,
- Co-design optimization methodologies for V-CPS,
- Testing, verification and assessment methods for V-CPS,
- CPS applications in intelligent and electrified vehicles,
- V-CPS in energy storage, electric and electrical systems,
- Cyber-physical synergy of human, vehicles and intelligent transportation systems.