# 2019 IEEE International Conference on Industrial Informatics (INDIN'19)

**Special Session/ Organized Session on**

## Communications and Computing for Fog Based Control Systems

**organized by**

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## Call for Papers

To meet the critical requirement in latency, reliability, safety, and security, fog/edge-based deployment of industrial cyber physical systems is demanded. The emerging higher performance wired and wireless communications, fog/edge computing, hardware and software virtualization are the fuels of this trend. This special session is targeted at researchers and industrialists to present and discuss research work related to innovative approaches, theory and methodology of applying the above advancing technologies in industrial domains.

Topics of interest include, but are not limited to:
- Concepts, modeling, simulation and validation for fog-based control systems
- High performance industrial wireless and wired communications
- Emerging cellular networks for critical control systems
- Convergence of industrial wired and wireless networks

[1] **A good quality paper may be considered for publication in IEEE Transactions on Industrial Informatics (I.F.=5.430) subjects to further rounds of review**

- Integration of cellular networks with industrial ethernet
- Resource allocation in fog computing for industrial controls
- Cross layer design of communications and computing with enhanced performances
- Real-time data storage, distribution, and analytics
- Virtualization of communication and computing resources
- Downloading application from cloud to fog/edge platforms
- Container technologies with short latency
- Security solutions for fog-based control systems
- Machine learning techniques in hard real-time closed loop control
- Partitioning of machine learning frameworks over fog/edge infrastructure
- Emerging applications of fog-based control systems in healthcare, mining, logistics, transportation, energy, manufacturing, etc.
- Interoperability and standardization for fog-based control systems

**Submissions Procedure and Deadlines:** All the instructions for paper submission are included in the conference website **https://www.indin2019.org/**

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