

Workshop Description

The Industrial Internet of Things has many facets and most of the time all applications require tailored performance engineering, security as well as computing schemes to work as expected and to provide an appropriate level of benefit for different types of networks, applications and services. Especially if considering industrial applications, the growing demand for performance, security and reliability as part of that becomes obvious.

The innovations concerning communication networking especially 5G allow Industrial IoT to significantly increase the responsiveness and flexibility of any kind of components. But the research discussion on Industrial IoT lacks for suitable systems, architectures, protocols and algorithms, which are classified to work levels above Industrial IoT frameworks, as well as overlaying concepts and novel business models. Architectures, protocols, standards, performance engineering approaches as well as many other things have not been designed for usage according to the requirements of Industrial IoT communication networking. Traditional, and novel consumer-driven approaches do not fit the requirements of Industrial IoT because these do not account for the special requirements introduced by advanced manufacturing applications towards communication architectures, security, performance, protocols and algorithms. Context-awareness is required for any kind of Industrial IoT networking and for different types of industrial applications and services. E.g., the occurring network traffic in Wireless Mesh Sensor Networks cannot be compared to traffic of molding machines or within chaining. Each of them having demands which must be covered.

Due to the relevance for industries and research addressing those shareholders, we expect a huge number of submissions and being attractive to industrial experts to gain the knowledge of current research in bringing together NFV/SDN with 5G technology as an integrated approach to improve industrial use cases in the future.

Submitted papers will be reviewed by the [5GIIOTCOM] 2019 TPC members and judged on originality, technical correctness, relevance, and quality of presentation.

[5GIIOTCOM] 2019

International Workshop on 5G-driven Industrial Internet of Things Communication Networking

In conjunction with the
**IEEE Conference on Network Function Virtualization
and Software Defined Networks 2019**
from November 12 - 14, 2019 in Dallas, Texas, USA

IEEE NFV-SDN is technically sponsored by the IEEE Communications Society and ETSI. The proceedings will be published in the IEEE Conference Publication Program. Workshop papers will appear in the conference proceedings and will be EI indexed.

Technical Topics

- Architectures, protocols and standards
- Dynamic and energy efficient communication
- Software-defined fog and cloud computing architectures
- Performance engineering and models
- Virtualized Industrial IoT infrastructure, applications and services
- Dynamic Industrial analytics architectures, algorithms and applications
- Network Function Virtualization (NFV) in 5G scenarios
- Network Function Chaining (NFC) in 5G scenarios
- Software-Defined Networking with Industrial IoT components
- Dynamic QoS for mission critical communications IIoT applications
- NFV-driven time-sensitive networking
- Autonomous context-aware traffic classification
- Device mobility and roaming
- M2M/D2D communication architectures, protocols and applications
- Cross-platform architecture, infrastructure and performance control

Submission

Proposals for papers must be related to NFV/SDN topics, but other related work in this field of research is welcome as well. Each paper is limited to 6 pages in standard IEEE camera-ready format (2-column, 10-pt font). Up to one additional page is permitted if the authors are willing to pay an over-length charge at the time of publication (manuscripts should not exceed 7 pages in total). Accepted papers must be registered and presented at the workshop venue by one of the authors.

More information at <http://5giiotcom.net>

Workshop Organizers

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