

WFCS 2019 - Sundsvall

Program Schedule

A historical prestigious conference

Monday 2019-05-27	
From 8:30	Registration
9:15-9:30	Welcome Address
09:30 - 10:30	Keynote 1 - Dr. Magnus Frodigh, Ericsson Research
10:30 - 11:00	Coffee break
11:00 - 12:30	Session 1 - Industrial IoT (Session chairman - Lucia Seno, CNR-IEIIT, Italy)
	Emiliano Sisinni, Federico Bonafini, Alessandro Depari, Paolo Ferrari, Alessandra Flammini, Marco Pasetti, Stefano Rinaldi and Mikael Gidlund; Exploiting localization systems for LoRaWAN transmission scheduling in industrial applications
	Mohamed Eldefrawy, Nico Ferrari and Mikael Gidlund; Dynamic User Authentication Protocol for Industrial IoT without Timestamping
	Silvia Krug, Sebastian Bader, Bengt Oelmann and Mattias O'Nils; Suitability of Communication Technologies for Harvester-Powered IoT-Nodes
	Johan Torsner, Luka Lednicki, Gargi Bag, Niclas Ericsson, Larisa Rizvanovic, Kristian Sandström, Calin Curescu and Björn Skubic; Industrial IoT with Distributed Cloud Experiments using 5G LTE
12:30 - 14:00	Lunch
14:00 - 17:00	Visit to SCA
18:00	Welcome Reception

Tuesday 2019-05-28	
08:30 - 09:00	Registration
09:00 - 10:40	Session 2 - Wireless Industrial Communications (Session chairman - Aamir Mahmood, Mid Sweden University, Sweden)
	Xiaoxiao Han, Xiangyu Ma and Deji Chen; Energy-balancing routing algorithm for WirelessHART
	Zalao Fernández, Mikel Mendicute, Elisabeth Uhlemann and Iñaki Val; Analysis and Evaluation of Self-Organizing TDMA for Industrial Applications
	Hossam Farag, Mikael Gidlund and Patrik Österberg; DeP-D: A Decentralized Primal-Dual Optimization Algorithm for Industrial Wireless Sensor Networks
	Eda Genc and Felipe Del Carpio; Wi-Fi QoS Enhancements for Downlink Operations in Industrial Automation Using TSN
	Honglei Li, Jing Geng, Yongkang Liu, Mohamed Kashef, Richard Candell and Shuvra Bhattacharyya; Design Space Exploration for Wireless-Integrated Factory Automation Systems
10:40 - 11:10	Coffee break
11:10 - 12:10	Keynote - 2 Alf Isaksson, ABB Corporate Research
12:10 - 13:40	Lunch
13:40 - 14:40	WiP Session 1 (Session chairman - Tomas Lenvall, Örebro university, Sweden)
	Tania Taami, Silvia Krug and Mattias O'Nils; Experimental Characterization of Latency in Distributed IoT Systems with Cloud Fog Offloading
	Albert Pötsch and Florian Hammer; Towards End-to-End Latency of LoRaWAN: Experimental Analysis and IIoT Applicability
	Marcelo V Garcia, Federico Perez, Aintzane Armentia and Marga Marcos; An Approach of Load Balancers for Low-cost CPPSs in Software-defined Networking Architecture
	Amal Alrish, Yuriy Zacchia Lun, Alessandro D'Innocenzo and Fortunato Santucci, Work in Progress: Systematic Derivation of Accurate Analytic Markov Channel Models for Industrial Control
	Thomas Kobzan, Sascha Heymann, Sebastian Schriegel and Jürgen Jasperneite; Utilizing SDN Infrastructure to provide Smart Services from the Factory to the Cloud

	Ismail Butun, Sevil Sen, Emre Aydogan, Selim Yilmaz, Stefan Forsstrom and Mikael Gidlund; A Central Intrusion Detection System for RPL-Based Industrial Internet of Things
	Björn Barig, Kaja Balzereit and Tino Hutschenreuther; Applying OPC-UA for Factory-Wide Industrial Assistance Systems
14:40 - 15:10	Coffee break
15:10 - 16:30	Session 3 - Performance analysis of industrial communications (Session chairman - Shuvra Bhattacharyy, University of Maryland, USA)
	Gianluca Cena, Stefano Scanzio, Lucia Seno and Adriano Valenzano; Optimal retransmission allocation for EDF-based networked real-time applications
	Michael Nast, Björn Butzin, Frank Golatowski and Dirk Timmermann; Performance Analysis of a Secured BACnet/IP Network
	Ahmed Amari and Ahlem Mifdaoui; QoS-Aware Ring Redundancy Protocol (QoS-ARRP) for High-Availability Ethernet Networks
	Alexios Lekidis and Ion Barosan; Model-based simulation and threat analysis of in-vehicle networks
18:00	Conference Dinner

	Wednesday 2019-05-29
09:00 - 09:30	Registration
09:30 - 10:40	WiP Session 2 (Session chairman - Emiliano Sisinni (University of Brescia, Italy)
	Andrija Goranovic, Marcus Meisel, Stefan Wilker and Thilo Sauter; Hyperledger Fabric Smart Grid Communication Testbed on Raspberry PI ARM Architecture
	Philip Tobianto Daely and Dong-Seong Kim; Bio-Inspired Cooperative Localization in Industrial Wireless Sensor Network
	Williams-Paul Nwadiugwu and Dong-Seong Kim; Novel MIMO-UWB based RTS/CTS Collaboration with Scalable Rate Prediction for Industrial WSNs
	Anetta Nagy, Thomas Bigler, Albert Treytl and Thilo Sauter; A Radio-Map clustering Algorithm for RSS based Localization using Directional Antennas

	Santiago Soler Perez Olaya and Martin Wollschlaeger; The role of comprehensive function models in the management of heterogeneous industrial networks
	Paulo Alexandre Ribeiro, Liudas Duoba, Rui Prior, Sergio Crisostomo and Luis Almeida; Real-Time Wireless Data Plane for Real-Time-Enabled SDN
10:40 - 11:10	Coffee break
11:10 - 12:10	Keynote 3 - Kia Wiklundh, Qamcom Research and Technology AB
12:10 - 13:40	Lunch
13:40 - 15:00	Session 4 - Novel solution for Industry 4.0 (Session chairman - Ramez Daoud, American University in Cairo)
	Tim Lackorzynski, Stefan Köpsell and Thorsten Strufe; A Comparative Study on Virtual Private Networks for Future Industrial Communication Systems
	Santosh Kumar Panda, Mainak Majumder, Marco Ehrlich, Arne Neumann, Lukasz Wisniewski and Jürgen Jasperneite; Topology Detection as a Base for Efficient Management of Heterogeneous Industrial Network Systems Using Software-Defined Networking
	Filippo Bosi, Antonio Corradi, Luca Foschini, Stefano Monti, Lorenzo Patera, Luca Poli and Michele Solimando; Cloud-enabled Smart Data Collection in Shop Floor Environments for Industry 4.0
	Tieu Long Mai, Nicolas Navet and Jörn Migge; A Hybrid Machine Learning and Schedulability Analysis Method for the Verification of TSN Networks

