

19th IEEE International Conference on Factory Communication Systems (WFCS)

26-28 April 2023, Pavia, Italy

Venue: **Ctrl+Alt Museum**

Address: via Riviera 39, Pavia

Google Maps:  bit.ly/wfcs2023



Ctrl+Alt
Museum



Program

	WED 26	THU 27	FRI 28
08:00			
09:00	Registration Open 08:30 – 09:30	Meeting Point, 08:30	Meeting Point, 08:30
10:00	Welcome: Opening Session 09:30 – 10:30	Keynote 2 - Alois Zoitl 09:15 – 10:15	Keynote 3 - Tilo Merlin 09:00 – 10:00
11:00	Keynote 1 - Roberto Verdone 10:30 – 11:30	WiP Session (8 papers), 10:15	Industrial Panel - New generation... 10:00 – 11:00
12:00	Coffee Break, 11:30	Coffee Break (Discussion of WiP paper)	Coffee Break, 11:00
13:00	Regular Session 1 (RS01): Wireless Industrial Networks (4 papers) 11:50 – 13:30	Special Session 2 (SS02): Technologies, Platforms, and Standardization for Industrial Wireless Systems Performance 11:25 – 13:30	Regular Session 3 (RS03): Management and Communication in Distributed Systems (5 papers) 11:25 – 13:30
14:00	Lunch 13:30 – 14:30	Lunch 13:30 – 14:30	Lunch 13:30 – 14:30
15:00	Special Session 1 (SS01): Advances in Security and Safety of Industrial Networked Infrastructures (5 papers) 14:30 – 16:35	Regular Session 2 (RS02): High Performance Wired Industrial Networks (4 papers) 14:30 – 16:10	Regular Session 4 (RS04): Wireless Networks and Services (4 papers) 14:30 – 16:10
16:00	Coffee Break, 16:35	Coffee Break, 16:10	Closing Session, 16:15
17:00			

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Program (Day 1, Wednesday 26)



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08:30 - 09:30	Registration is open																		
09:30 - 10:30	Opening Session (Chairs: Tullio Facchinetti, Lukasz Wisniewski)																		
10:30 - 11:30	Keynote 1: <i>5G and Beyond for Future Factory Networks</i> , Roberto Verdone (Chair: Francesco Benzi)																		
11:30 - 11:50	Coffee Break																		
11:50 - 13:30	Regular Session 1: Wireless Industrial Networks (Chairs: Francois Quitin, Emiliano Sisinni)																		
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Program (Day 2, Thursday 27)



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09:15 – 10:15	Keynote 2: <i>We want to! We need to! Communicating in IEC 61499-based Control Systems</i> , Alois Zoitl (Chair: David Lou)																											
10:15 – 11:00	Work-in-Progress Session (Chair: Emiliano Sisinni)																											
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Program (Day 2, Thursday 27)



... continued

11:25 – 13:30

Special Session 2: Technologies, Platforms, and Standardization for Industrial Wireless Systems Performance Evaluation

(Chairs: Richard Candell, Kang Lee)

Time	Paper Title	Authors
11:25	<i>Scheduling for Time-Critical Applications Utilizing TCP in Software-Based 802.1Qbv Wireless TSN</i>	Richard Candell, Karl Montgomery, Mohamed Kashef (Hany), Susruth Sudhakaran, Dave Cavalcanti
11:50	<i>Zero-Delay Roaming for Mobile Robots enabled by Wireless TSN Redundancy</i>	Susruth Sudhakaran, Ibrahim Ali, Mark Eisen, Javier Perez-Ramirez, Cosmin Cazan, Valerio Frascolla, Dave Cavalcanti
12:15	<i>Predicting Wireless Channel Quality by means of Moving Averages and Regression Models</i>	Gabriele Formis, Stefano Scanzio, Gianluca Cena, Adriano Valenzano
12:40	<i>A Cooperation-Free Resource Allocation Algorithm Enhanced by Reinforcement Learning for Coexisting IIoTs</i>	Jialin Zhang, Wei Liang, Bo Yang, Huaguang Shi, Qi Wang, Zhibo Pang
13:05	<i>60 GHz mmWave Signal Propagation Characterization in Workshop and Steel Industry</i>	Joseba Osa, Niclas Bjorsell, Per Angskog, Inaki Val, Mikel Mendicute

13:30 – 14:30

Lunch

14:30 – 16:10

Regular Session 2: High Performance Wired Industrial Networks

(Chairs: Maliosz Markosz, Markus Rentschler)

Time	Paper Title	Authors
14:30	<i>Composite CAN XL-Ethernet Networks for Next-Gen Automotive and Automation Systems</i>	Gianluca Cena, Stefano Scanzio, Adriano Valenzano
14:55	<i>Buffer Management for TSN-Enabled End Stations</i>	Christoph Lehr, Patrick Denzler, Thomas Fruhwirth, Wolfgang Kastner
15:20	<i>TSN Scheduler Benchmarking</i>	Eike Schweissguth, David Hellmanns, Stefan Mehner, Jonathan Falk, Helge Parzyjeglja, Peter Danielis, Oliver Hohfeld, Gero Mühl, Dirk Timmermann
15:45	<i>Deterministic Local Cloud for Industrial Applications</i>	Markosz Maliosz, István Moldován, Miklós Máté, Csaba Simon, János Harmatos

16:10 – 16:30

Coffee Break

20:00 –

Conference dinner

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Program (Day 3, Friday 28)



Time	Event																		
09:00 – 10:00	Keynote 3: <i>Is it just yet another fieldbus? Ethernet conquers instrumentation in process industry</i> , Tilo Merlin (Chair: Zhibo Pang)																		
10:00 – 11:00	Industrial Panel: <i>New generation communications for new generation automation systems</i> Moderator: Zhibo Pang Panelists: Francesco Benzi, Zhe Lou, Tilo Merlin, Gergely Seres, Alois Zoitl																		
11:00 – 11:25	Coffee Break																		
11:25 – 13:30	Regular Session 3: Management and Communication in Distributed Systems (Chairs: Luis Almeida, Gianluca Cena)																		
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