IEEE CSCN

IEEE

IEEE ComSoc
IEEE Communications Society

IEEE Conference on Standards for Communications and Networking 2017

18 – 20 September 2017 Helsinki, Finland

Conference Program

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WELCOME MESSAGE

On behalf of the Organizing Committee, it is with great pleasure that we welcome you to the 2017 IEEE Conference on Standards for Communications & Networking (CSCN'17), going to be held in Helsinki, Finland's capital. The Dates of CSCN'17 were deliberately chosen to have the conference immediately precede the Broadband Forum Q3 meeting that will also take place in Helsinki, Finland. IEEE CSCN 2017 will be collocated with the IEEE 5G-IoT Summit Helsinki, together forming the Helsinki5GWeek.

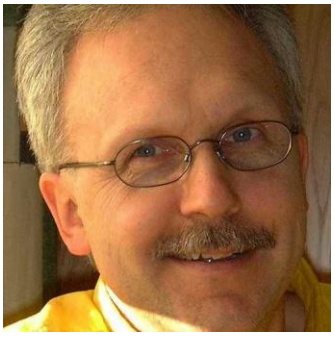
CSCN'17 will deliver a rich technical program discussing the emerging 5G mobile communications systems, vertical services and softwarization offering four distinguished keynotes, two panels and a dozen of technical sessions. The sessions consist of technical papers reviewed and selected by an international technical program committee representing both academia and industry, with a strong standardization background.

CSCN'17 will be an excellent networking and publicity event with strong presence of industry, offering the opportunity for academics and industrial people to meet and exchange ideas and information. This is indeed one of the main objectives of the conference. CSCN'17 will be also a platform for presenting and discussing standards-related topics in the areas of communications, networking and related disciplines, facilitating standards development as well as cooperation among the key players.

Known for its stunning nature – vast green forests and thousands of lakes and hundreds of islands, Finland is also the heart of innovation and technology. Helsinki, the capital of Finland, as well as the huge Metropolitan Area that includes Espoo, Vantaa and Kauniainen is home to several universities and technology institutes bringing innovation to all levels of daily life. You are invited to explore the eclectic city of Helsinki, relax in its famous saunas and enjoy world's finest cuisine.

We look forward to welcoming you all at the IEEE CSCN'17 in Helsinki.

Prof. Matti Latva-aho
University of Oulu, Finland



Prof. Raimo Kantola
Aalto University, Finland

Prof. Tarik Taleb
Aalto University, Finland

ORGANIZING COMMITTEE

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Prof. Matti Latva-aho
University of Oulu, Finland

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PROGRAM AT A GLANCE

	MONDAY 18 Sep.[1]	TUESDAY 19 Sep.			WEDNESDAY 20 Sep.		
09:00 | 10:30	**IEEE 5G-IoT Summit Helsinki**	**Welcome from Organizers** **Keynote-1** Dr. Janne Peisa, Ericsson Research **Keynote-2** Mr. Yun Chao Huawei Technologies Dusseldorf GmbH			**Keynote-3** Mr. Antti Toskala, Nokia Bell Labs **Keynote-4** Mr. Tero Heinonen, Sharper Shape Inc. & ArcticRED Ltd		
10:30 | 11:00	**Coffee break**	**Coffee break**			**Coffee break**		
11:00 | 12:30	**IEEE 5G-IoT Summit Helsinki**	**Panel 1** Toward the Future of IoT with Drones			**Panel 2** 5G/NR Architecture – Is it revolutionary or evolutionary?		
12:30 | 14:00	**Networking Lunch**	**Networking Lunch**			**Networking Lunch**		
14:00 | 15:30	**IEEE 5G-IoT Summit Helsinki**	Tech Session-1 (5G Radio Resource Management)	Tech Session-2 (5G Network Slicing & Softwarization)		Tech Session-5 (5G Radio Access Networks)	Tech Session-6 (5G Fronthaul/Backhaul Networks)	Tech Session-7 (Network Security in 5G Systems)
15:30 | 16:00	**Coffee break**	**Coffee break**			**Coffee break**		
16:00 | 17:30	**IEEE 5G-IoT Summit Helsinki**	Tech Session-3 (NB-IoT & D2D Commun.)	**Standards in Practice: A Simulation Game**	Tech Session-4 (5G Vehicular Commun.)	Tech Session-8 (5G Radio)	Tech Session-9 (5G Mobile Core Networks)	Tech Session-10 (IoT/MTC Protocols & Services)
19:00 | 21:00	**IEEE CSCN'17 & Summit Reception & Banquet Party**						

[1] The most updated program of the summit is available at http://www.5gsummit.org/helsinki/

DETAILED PROGRAM

Tuesday 19 September 2017

19 September 2017, 09:00 – 09:10
Opening Welcome - IEEE CSCN 2017 General Chairs, Prof. Matti Latva-aho and Prof. Raimo Kantola

19 September 2017, 09:10 – 10:30
Venue: Valimo 1-3
Chair: Prof. Matti Latva-aho (University of Oulu, Finland)

Keynote-1: Speaker: Dr. Janne Peisa, Ericsson Research, Finland.
Title: "5G Techniques for Ultra Reliable Low Latency Communication"

Keynote-2: Speaker: Mr. Yun Chao, Huawei Technologies Duesseldorf GmbH, Germany.
Title: "EDGE INTELLIGENCE- The central cloud is dead – long live the edge cloud!"

19 September 2017, 10:30 – 11:00
Coffee Break

19 September 2017, 11:00 – 12:30
Panel #: Title: "Toward the Future of IoT with Drones"
Venue: Valimo 1-3
Moderator: Dr. Zhenhui Yuan, (RobSense Technologies. Co. Ltd, China**)**
Panelists:

- Prof. Dr.-Ing. Christian Wietfeld, TU Dortmund University, Communication Network Institute (CNI), Germany
- Prof. Petar Popovski, Aalborg University RESEIWE A/S, Denmark
- Prof. Walid Saad, Electrical and Computer Engineering Department, Virginia Tech, USA
- Prof. Bernhard Rinner, Institute of Networked and Embedded Systems, Alpen-Adria-Universität Klagenfurt, Austria
- Dr. Mehdi Bennis, Center for wireless communications, University of Oulu, Finland

19 September 2017, 12:30 – 14:00
Networking Lunch Break

19 September 2017, 14:00 – 15:30
Tech Session-1: 5G Radio Resource Management
Venue: Valimo 4
Chair: Dr. David M Gutierrez-Estevez (Samsung Electronics, United Kingdom (Great Britain))

RAN Enablers for 5G Radio Resource Management

- David M Gutierrez-Estevez (Samsung Electronics, United Kingdom (Great Britain))
- Ömer Bulakci (Huawei Technologies & European Research Center, Germany)
- Marten Ericson (Ericsson, Sweden)
- Athul Prasad (Nokia Bell Labs, Finland)
- Emmanouil Pateromichelakis (Huawei Technologies Duesseldorf GmbH, Germany)
- Jakob Belschner (Deutsche Telekom AG, Germany)
- Paul Arnold (Telekom Innovation Laboratories, Germany)
- Giorgio Calochira (Telecom Italia, Italy)

Location-Aware Beamformed Downlink Control Channel for Ultra-Dense Networks

- Petteri Kela (Huawei Technologies Oy (Finland) Co., Ltd., Finland)
- Mario Costa (Huawei Technologies Oy (Finland) Co., Ltd., Finland)
- Kari Leppanen (Huawei Technologies, Finland)
- Riku Jäntti (Aalto University School of Electrical Engineering, Finland)

Impact of Cyclic Prefix Configuration on Mobility Performance of Multi-connectivity in 5G Networks

- Fasil Tesema (Nomor Research & Technical University of Dresden, Germany)
- Ahmad Awada (Nokia Bell Labs, Germany)
- Ingo Viering (Nomor Research GmbH, Germany)
- Meryem Simsek (Technische Universität Dresden, Germany)
- Gerhard Fettweis (Technische Universität Dresden, Germany)

An Improved Method for On-Demand System Information Broadcast in 5G Networks

- Ahmad Awada (Nokia Bell Labs, Germany)
- Diomidis S. Michalopoulos (Nokia Bell Labs, Germany)
- Amaanat Ali (Nokia Solutions and Networks Oy, Finland)

An Agile Resource Management Framework for 5G

- Ömer Bulakci (Huawei Technologies & European Research Center, Germany)
- David M Gutierrez-Estevez (Samsung Electronics, United Kingdom (Great Britain))

- Marten Ericson (Ericsson, Sweden)
- Athul Prasad (Nokia Bell Labs, Finland)
- Emmanouil Pateromichelakis (Huawei Technologies Duesseldorf GmbH, Germany)
- Giorgio Calochira (Telecom Italia, Italy)
- Jakob Belschner (Deutsche Telekom AG, Germany)
- Paul Arnold (Telekom Innovation Laboratories, Germany)
- Fernando Sanchez Moya (Nokia Networks Research, Poland)
- Ahmed Ibrahim (Intel Deutschland GmbH, Germany)
- Francesco Bronzino (INRIA, France)
- Haris Celik (KTH Royal Institute of Technology, Sweden)
- Gabor Fodor (Ericsson Research & Royal Institute of Technology (KTH), Sweden)

19 September 2017, 14:00 – 15:30
Tech Session-2: 5G Network Slicing & Softwarization
Venue: Valimo 1-3
Chair: Dr. Konstantinos Samdanis (Huawei, European Research Center, Germany)

End-to-End Network Slicing Enabled Through Network Function Virtualization

- Ibrahim Afolabi (Aalto University, Finland)
- Miloud Bagaa (Aalto University, Finland)
- Tarik Taleb (Aalto University, Finland)
- Hannu Flinck (Nokia Bell Labs, Finland)

Network Slicing for 5G Systems: A Review from an Architecture and Standardisation Perspective

- Riccardo Trivisonno (Huawei Technologies, Germany)
- Xueli An (Huawei Technologies, Germany)
- Qing Wei (Huawei Technologies, Germany)

Service Function Chaining deployed in an NFV environment: An availability Modeling

- Mario Di Mauro (University of Salerno, Italy)
- Maurizio Longo (University of Salerno, Italy)
- Fabio Postiglione (University of Salerno, Italy)
- Giuliana Carullo (University of Salerno, Italy)
- Marco Tambasco (Research Consortium on Telecommunications, Italy)

Enhanced Query Processing Using Weighted Predicate Tree in Edge Computing Environment

- ByungHoo Song (Sungkyunkwan University, Korea)
- Byungjun Lee (Sungkyunkwan University, Korea)
- Kyungtae Kim (Sungkyunkwan University, Korea)
- Hee Yong Youn (Sungkyunkwan University, Korea)

5G-MiEdge: Design, Standardization and Deployment of 5G Phase II Technologies

- Valerio Frascolla (Intel Deutschland Gmbh, Germany)
- Federico Miatton (Intel, Spain);
- Gia Khanh Tran (Tokyo Institute of Technology, Japan)
- Koji Takinami (Panasonic Corporation, Japan);
- Antonio De Domenico (CEA-LETI Minatec, France)
- Emilio Calvanese Strinati (CEA-LETI, France);
- Thomas Haustein (Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut, Germany)
- Kei Sakaguchi (Tokyo Institute of Technology & Fraunhofer HHI, Japan)
- Sergio Barbarossa (Sapienza University of Rome, Italy)
- Sergio Barberis (Telecom Italia Lab, Italy)
- Konstantin Koslowski (Fraunhofer HHI, Germany)

19 September 2017, 15:30 – 16:00
Coffee Break

19 September 2017, 16:00 – 17:30
Tech Session-3: NB-IoT & D2D Communications
Venue: Valimo 4
Chair: Dr. Athul Prasad (Nokia Bell Labs, Finland)

Enhancements of Narrowband IoT in 3GPP Rel-14 and Rel-15

- Rapeepat Ratasuk (Nokia Bell Labs, USA)
- Nitin Mangalvedhe (Nokia Bell Labs & Nokia, USA)
- Zhilan Xiong (Nokia Bell Labs, United Kingdom (Great Britain))
- Michel Robert (Nokia, France)
- David Bhatoolaul (Nokia Bell Labs, United Kingdom (Great Britain))

Efficient Resource Scheduling for eMTC/NB-IoT Communications in LTE Rel. 13

- Arvind Chakrapani (Qualcomm, USA)

Optimal Resource Dedication in Grouped Random Access for Massive Machine-Type Communications

- Bin Han (University of Kaiserslautern, Germany)
- Mohammad Asif Habibi (University of Kaiserslautern, Germany)
- Hans D. Schotten (University of Kaiserslautern, Germany)

Queuing Packet Framework-based Indexing Methodology for Massive MTC and V2X

- Konstantinos Lizos (University of Oslo, Norway)
- Saied M. Abd El-atty (Menoufia University-Faculty of Electronic Engineering & Salman Bin Abdulaziz University, Egypt)

19 September 2017, 16:00 – 17:30
Tech Session-4: 5G Vehicular Communications
Venue: Valimo 1-3
Chair: Prof. JaeSeung Song (Sejong University, Korea)
Multi-User-Centric Virtual Cell Operation for V2X Communications in 5G Networks

- Taylan Sahin (Huawei Technologies ERC, Germany)
- Markus Klügel (Technische Universität München, Germany)
- Chan Zhou (Huawei European Research Center, Germany)
- Wolfgang Kellerer (Technische Universität München, Germany)

Recent Advances in 3GPP Networks for Vehicular Communications

- Apostolos Kousaridas (Huawei Technologies, Germany)
- Daniel Medina (Huawei European Research Center (ERC), Germany)
- Serkan` Ayaz (Huawei Technologies, Germany);
- Chan Zhou (Huawei European Research Center, Germany)

End-to-End Backlog and Delay Bound Analysis Using Martingale for Internet of Vehicles

- Yun Hu (Xidian University, P.R. China)
- Hongyan Li (Xidian University, P.R. China)
- Zheng Chang (University of Jyväskylä, Finland)
- Ronghui Hou (Xidian University, P.R. China)
- Zhu Han (University of Houston, USA)

Vehicular SUDAS for 5G High Mobility V2X Scenarios

- Rudraksh Shrivastava (Fraunhofer Institute for Integrated Circuits (IIS), Germany)
- Marco Breiling (Fraunhofer Institute for Integrated Circuits (IIS), Germany)
- Aravindh Krishnamoorthy (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)

An Overview of Standardization efforts for enabling Vehicular-to-Everything Services

- Syed S Husain (DOCOMO Labs & NTT DOCOMO, USA)
- Andreas Kunz (Lenovo, Germany)
- Athul Prasad (Nokia Bell Labs, Finland)
- Konstantinos Samdanis (Huawei, Germany)
- JaeSeung Song (Sejong University, Korea)

19 September 2017, 16:00 – 17:30
Developing Standards in Practice: Teaching the Standards Process through the IEEE Standards Simulation Workshop
Venue: Valimo 5
Chair: Prof. James Irvine (University of Strathclyde, UK; Chair, IEEE SA/EA Standards Education Committee) and Ms. Donna Ceruto (IEEE Standards Association, USA)

Session Description: (open to public) Influencing standards is essential for research activities to have impact, particularly in the area of communications. However, few university courses truly prepare graduates for involvement in standards, seeing this as the role of industry. This often means standards are driven by the larger players who have the staff and resources to dedicate to the system.

To address this issue, IEEE SA and IEEE Educational Activities have developed a day long workshop, based around a standards simulation game, which can be used to train students and graduates in the standards process. This interactive session will summarize the workshop, starting with an overview of the IEEE standards development process, before giving participants a chance to try the game for themselves. The session will end with practical tips on how to engage students and young professionals more in the standardization process.

Wednesday 20 September 2017

20 September 2017, 09:00 – 10:30
Venue: Valimo 1-3
Chair: Prof. Raimo Kantola (Aalto University, Finland)

Keynote-3: Speaker: Mr. Antti Toskala, Nokia Bell Labs, Finland

Title: "5G status in 3GPP and future directions past phase 1 5G"

Keynote-4: Speaker: Mr. Tero Heinonen, Sharper Shape Inc., USA; and ArcticRED Ltd, Finland
Title: "Autonomous vehicles will eliminate 90% of road accidents and we all will be connected to them"
Venue: Valimo 1-3

20 September 2017, 10:30 – 11:00
Coffee Break

20 September 2017, 11:00 – 12:30
Panel 2: Title: "5G/NR Architecture – Is it revolutionary or evolutionary?"
Venue: Valimo 1-3
Moderator: Dr. Athul Prasad, NOKIA Bell Labs, Finland
Panelists:

- Jari Arkko, Senior Expert, Ericsson Research, Finland
- Dr. Andreas Maeder, NOKIA Bell Labs, Germany
- Dr. Ömer Bulakci, Senior Research Engineer, Huawei German Research Center, Germany
- Dr. David Gutierrez Estevez, Senior 5G Researcher, Samsung R&D Institute UK

20 September 2017, 12:30 – 14:00
Networking Lunch Break

20 September 2017, 14:00 - 15:30
Tech Session-5: 5G Radio Access Networks
Venue: Valimo 1-3
Chair: Dr. Ömer Bulakci (Huawei Technologies & European Research Center, Germany)
LAA-as-a-Service as Key Enabler in 5G Dynamic Radio Topologies

- Emmanouil Pateromichelakis (Huawei Technologies Duesseldorf GmbH, Germany)
- Ömer Bulakci (Huawei Technologies & European Research Center, Germany)

Simulation and Performance Analysis of Frame Structures for Multi-hop Relay Systems

- Alexander Sayenko (Samsung Electronics, Finland)
- Mikhail Zolotukhin (University of Jyväskylä, Finland)
- Timo Hämäläinen (University of Jyväskylä, Finland)

Data Structure and Working Logic of Scalable Geographic Multicast Scheme in Flying Ad-hoc Networks

- Hassen Redwan (Korea Electronics Technology Institute, Korea)
- Sungchan Choi (Korea Electronics Technology Institute, Korea)
- Jaeho Kim (Korea Electronics Technology Institute, Korea)
- Jong-Hong Park (Korea Electronics Technology Institute, Korea)

Information Centric Approach in Achieving Anycast Service in Machine Type Communications

- Lijun Dong (Huawei, USA)
- Guoqiang Wang (Huawei, USA)

Energy Efficiency of 5G Mobile Networks with Base Station Sleep Modes

- Panu Lähdekorpi (Magister Solutions Ltd., Finland)
- Michal Hronec (Magister Solutions Ltd., Finland)
- Petri Jolma (Nokia, Finland)
- Jani Moilanen (Nokia Siemens Networks, Finland)

20 September 2017, 14:00 - 15:30
Tech Session-6: 5G Fronthaul/Backhaul Networks
Venue: Valimo 4
Chair: Dr. Rudraksh Shrivastava (Fraunhofer Institute for Integrated Circuits (IIS), Germany)

Joint Access-Backhaul Perspective on Mobility Management in 5G Networks

- Rakibul Islam Rony (Universitat Politènica de Catalunya, Spain)
- Akshay Jain (Universitat Politecnica de Catalunya, Spain)
- Elena Lopez-Aguilera (Technical University of Catalonia (UPC), Spain)
- Eduard Garcia-Villegas (Technical University of Catalonia (UPC), Spain)
- Ilker Demirkol (Universitat Politecnica de Catalunya, Spain)

X-Ethernet:Enabling integrated Fronthaul/Backhaul Architecture in 5G Networks

- Rixin Li (Huawei Technologies Co., LTD, P.R. China)
- Weiqiang Cheng (Research Institute of China Mobile, P.R. China)

- Lei Wang (China Mobile Communications Corporation, P.R. China)
- Renlei Wang (Huawei, P.R. China); Nir Halachmi (HUAWEI, Israel)
- Qiwen Zhong (Huawei Technologies, P.R. China)
- Jiao Wang (Huawei Technologies Co., Ltd., P.R. China)

3GPP standardization activities in relay based 5G high speed train scenarios for the SHF band

- Fumihiro Hasegawa (Mitsubishi Electric Corp., Japan)
- Akinori Taira (Mitsubishi Electric Corp., Japan)
- Hiroshi Nishimoto (Mitsubishi Electric Corp., Japan)
- Akihiro Okazaki (Mitsubishi Electric Corp., Japan)
- Atsushi Okamura (Mitsubishi Electric Corp., Japan)
- Gosan Noh (Electronics and Telecommunications Research Institute, Korea)
- Bing Hui (Electronics and Telecommunications Research Institute, Korea)
- JunHwan Lee (Electronics and Telecommunications Research Institute, Korea)
- Ilgyu Kim Electronics and Telecommunications Research Institute, Korea)

A Game-Theoretical Green Networking Approach for Information-Centric Networks

- Quang Ngoc Nguyen (Waseda University, Japan)
- Keping Yu (Waseda University, Japan)
- Takuro Sato (Waseda University, Japan)
- Mohammad Arifuzzaman (Memorial University of Newfoundland, Canada)

20 September 2017, 14:00 - 15:30
Tech Session-7: Network Security in 5G Systems
Venue: Valimo 5
Chair: Ashwin Rao (University of Helsinki, Finland)

Towards Provisioning of SDN/NFV-based Security Enablers for Integrated Protection of IoT Systems

- Ivan Farris (Aalto University, Finland);
- Jorge Bernal Bernabé (University of Murcia, Spain)
- Nassima Toumi (Aalto University, Finland)
- Dan Garcia (University of Murcia, Spain)
- Tarik Taleb (Aalto University, Finland)
- Antonio Fernando Skarmeta Gomez (University of Murcia, Spain)
- Bengt Sahlin (Ericsson Finland, Finland)

Virtualized Authentication, Authorization and Accounting (V-AAA) in 5G Networks

- Stan Wong (King's College London, United Kingdom (Great Britain))
- Nishanth Sastry (King's College London, United Kingdom (Great Britain))
- Oliver Holland (King's College London, United Kingdom (Great Britain))
- Vasilis Friderikos (King's College London, United Kingdom (Great Britain))
- Mischa Dohler (King's College London, United Kingdom (Great Britain))
- Hamid Aghvami (King's College London, United Kingdom (Great Britain))

Overview of 5G Security in 3GPP

- Xiaowei Zhang (Detecon International, Germany)
- Andreas Kunz (Lenovo, Germany)
- Stefan Schröder (T-Systems International GmbH, Germany)

Securing VNF Communication in NFVI

- Shankar Lal (Aalto University & Nokia Bell Labs, Finland)
- Aapo Kalliola (Nokia Bell Labs & Aalto University, Finland)
- Ian Oliver (Nokia Bell Labs, Finland);
- Kimmo Ahola (VTT Technical Research Center of Finland, Finland)
- Tarik Taleb (Aalto University, Finland)

5G Security: Analysis of Threats and Solutions

- Ijaz Ahmad (University of Oulu, Finland)
- Tanesh Kumar (University of Oulu, Finland)
- Madhusanka Liyanage (University of Oulu, Finland)
- Jude Okwuibe (University of Oulu, Finland)
- Mika E Ylianttila (University of Oulu & Centre for Wireless Communications, Finland)
- Andrei Gurtov (Aalto University, Finland)

20 September 2017, 15:30 - 16:00
Coffee Break

20 September 2017, 16:00 – 17:30
Tech Session-8: 5G Radio
Venue: Valimo 1-3
Chair: Dr. Ahmad Awada, (Nokia Bell Labs, Germany)

Holistic Resource Management and Air Interface Abstraction Models

- Parishad Karimi (WINLAB, Rutgers University, USA)
- Fernando Sanchez-Moya (Nokia Bell Labs, Poland)
- Ömer Bulakci (Huawei Technologies & European Research Center, Germany)
- David M Gutierrez-Estevez (Samsung Electronics, United Kingdom (Great Britain))
- Marten Ericson (Ericsson, Sweden)
- Athul Prasad (Nokia Bell Labs, Finland)
- Gabor Fodor (Ericsson Research & Royal Institute of Technology (KTH), Sweden)

Joint Fairness and Sum Rate Resource Allocation for NOMA Communications

- Chieh-Hao Wang (National Tsing Hua University, Taiwan)
- Jing-Yan Lin (National Tsing Hua University, Taiwan)
- Jen-Ming Wu (National Tsing Hua University, Taiwan)

Statistical Modeling of Propagation Channels for Terahertz Band

- Ali Rıza Ekti (Balıkesir University, Turkey)
- Ali Boyacı (Istanbul Commerce University, Turkey)
- Altan Alparslan (Yeditepe University, Turkey)
- Ilhami Unal (TUBITAK MAM, Turkey)
- Serhan Yarkan (Istanbul Commerce University, Turkey)
- Ali Gorcin (Yildiz Technical University, Turkey)
- Huseyin Arslan (Istanbul Medipol University, Turkey)
- Murat Uysal (Ozyegin University, Turkey)

Dynamic Pilot Scheduling Scheme for 5G Outdoor Ultra-Dense Network

- Estifanos Yohannes Menta (Aalto University, School of Electrical Engineering, Finland)

Isolation optimization technique for 5G RF cavity

- Muhammad N Islam (University of Oulu- CWC & Esju Oy, Finland)
- Lauri Hynynen (Esju Oy, Finland)
- Mika Piiroinen (Esju Oy, Finland)
- Tero Kangasvieri (Nokia Corporation, Finland)
- Timo Tarvainen (Esju Oy, Finland)

20 September 2017, 16:00 – 17:30

Tech Session-9: 5G Mobile Core Networks
Venue: Valimo 4
Chair: Dr. Miloud Bagaa (Aalto University, Finland)

NoSQL Stores for Coreless Mobile Networks

- Frans Ojala (Avarko OY, Finland)
- Ashwin Rao (University of Helsinki, Finland)
- Hannu Flinck (Nokia Bell Labs, Finland)
- Sasu Tarkoma (University of Helsinki, Finland)

Data Plane Protocols and Fragmentation for 5G

- Juha-Matti Tilli (Nokia Bell Labs & Aalto University, Finland)
- Raimo Kantola (Aalto University, Finland)

Big Data and Machine Learning Driven Handover Management and Forecasting

- Luong Vy Le, (National Chiao Tung University, Taiwan)
- Li-Ping Tung (National Chiao Tung University, Taiwan)
- Bao-Shuh Lin (National Chiao Tung University, Taiwan)

LTE-WLAN aggregation (LWA) in 3GPP Release 13 & Release 14

- Helka-Liina Määttänen (Ericsson, Finland)
- Gino Masini (Ericsson AB, Sweden)
- Mattias Bergström (Ericsson Research, Sweden)
- Antti Ratilainen (Ericsson Research, Finland)
- Torsten Dudda (Ericsson Research, Germany)

Controlling TCP ACK Transmission: Impact of Discard Ratio on Performance in LTE-Advanced Pro

- Yoshiaki Ohta (Fujitsu Laboratories Ltd., Japan)
- Michiharu Nakamura (Fujitsu Laboratories Ltd., Japan)
- Yoshihiro Kawasaki (Fujitsu LTD., Japan)
- Takayoshi Ode (Fujitsu LTD., Japan)

20 September 2017, 16:00 – 17:30

Tech Session-10: IoT/MTC Protocols & Services
Venue: Valimo 5
Chair: Dr. Andreas Kunz (Lenovo, Germany)

QoS and Service Continuity in 3GPP D2D for IoT and Wearables

- Dawid Koziol (Nokia, Poland)
- Fernando Sanchez Moya (Nokia)
- Ling Yu (Nokia, Poland)
- Vinh Van Phan (Nokia, Finland)
- Steven Xu (Nokia, P.R. China)

A Comparison and Evaluation of Different BLE Connection Methods for Wearable Devices

- Yu-Yen Ting (University of National Chiao Tung, Taiwan);
- Fuchun Joseph Lin (National Chiao Tung University, Taiwan)

Securing the IoT World: Issues and Perspectives

- Mario Frustaci (University of Calabria, Italy)
- Pasquale Pace (University of Calabria, Italy)
- Gianluca Aloi (University of Calabria, Italy)

OneM2M-based IoT Protocol Integration

- Chia-Wei Wu (National Chiao Tung University, Taiwan)
- Fuchun Joseph Lin (National Chiao Tung University, Taiwan)
- Chia-Hong Wang (Institute for Information Industry, Taiwan)
- Norman Chang (Institute for Information Industry, Taiwan)

On Energy Efficiency and Lifetime in Low Power Wide Area Network for the Internet of Things

- Maice Costa (Trinity College Dublin, Ireland)
- Linda Doyle (Trinity College Dublin, Ireland)

PARALLEL EVENTS

Monday; 18 September 2017

IEEE 5G-IoT Summit Helsinki
Venue: Valimo 1-3
Program details: http://www.5gsummit.org/helsinki/

Tuesday; 19 October 2017 (09:00 – 16:00)

IEEE SA - Rapid Reaction Standardization Activity
Venue: Valimo 5 **(**by invitation only)

Tuesday; 19 October 2017 (16:00 – 17:30)

Developing Standards in Practice: Teaching the Standards Process though the IEEE Standards Simulation Workshop
Venue: Valimo 5 **(Open to Public**)
See above for the description of this session!

SOCIAL EVENT

IEEE CSCN'17 and IEEE 5G-IoT Summit Reception & Banquet Party
Monday 18 September 2017, 19:00 – 21:00
Venue: To be announced on site!

CONFERENCE VENUE

Radisson Blu Seaside
Ruoholahdenranta 3
00180 Helsinki, Finland

Venue Floorplan

Information for public transportation
https://m.reittiopas.fi/en/

OUR PLATINUM PATRON

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OUR GOLD PATRONS

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