

# Communications and Networking Conference

Boosting Verticals into Wireless Orbit

10-13 April 2022 // Austin, Texas, USA

ieee-wcnc.org

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#### **OPENING REMARKS**





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President, ComSoc



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City of Austin

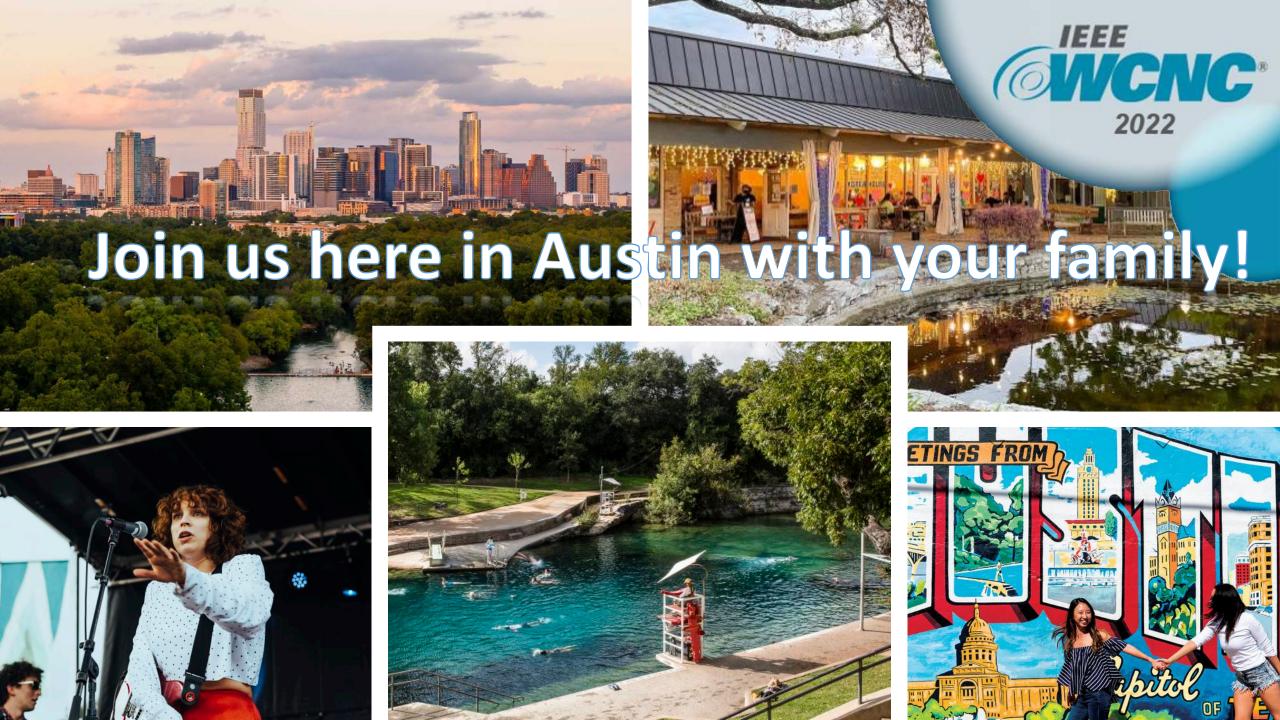


ALI GHRAYEB,
Steering Committee
WCNC2022

The City of Austin proclaimed April 10-13, 2022, as "IEEE Week."









#### **CONFERENCE HIGHLIGHTS**

IEEE

OVICIO
2022

- √ 11 Workshops
- ✓ 12 Tutorials
- ✓ 23 Technical Program (In-Person sessions)
- √ 48 Technical Program (On Demand sessions)
- ✓ Nine dynamic keynote speakers.
- ✓ Two Executive Forum sessions.
- ✓ Dialogue with Industry Leaders
- ✓ Twelve Industry panel
- ✓ Seven Industry presentations
- ✓ Special session
- ✓ Wireless Startup session a pitch competition
- ✓ Sponsors & Exhibitors





PEIYING ZHU
HUAWEI



MÉROUANE DEBBAH TECHNOLOGY INNOVATION INSTITUE



GERHARD P. FETTWEIS

VODAFONE



AMITABHA GHOSH
NOKIA



KAILASH NARAYANAN

KEYSIGHT



JOHN E. SMEE

QUALCOMM



ERIC STARKLOFF
NATIONAL INSTRUMENTS



LI TIAN ZTE



IEEE

2022

GENG WU
INTEL



DIALOGUE WITH INDUSTRY LEADERS ON BOOSTING VERTICALS INTO WIRELESS ORBIT (11 APR, 6 PM CDT)



**MODERATOR** 



**DRAGAN SAMARDZIJA**NOKIA LABS



GENG WU INTEL



JAN SODERSTROM ERICSSON





CHARLIE JIANZHONG ZHANG SAMSUNG RESEARCH



MILAP MAJMUNDAR
\_\_\_\_AT&T LABS



EXECUTIVE FORUM: 6G USE CASES, REQUIREMENTS, AND KEY CAPABILITIES

(12 APR, 9 AM CDT)





GUANGYI LIU CHINA MOBILE



DAVID LISTER VODAFONE



**MODERATOR** 

**WEN TONG**HUAWEI WIRELESS



**PETAR POPOVSKI**AALBORG UNIVERSITY



STEFAN PARKVALL ERICSSON



## **EXECUTIVE FORUM: PERSPECTIVE ON 6G** (11 APR, 2 PM CDT)





GENG WU INTEL



PEIYING ZHU HUAWEI



KAILASH NARAYANAN KEYSIGHT

**MODERATOR** 



JOHN E. SMEE QUALCOMM



(11 APR, 11:45 AM CDT)





#### **Peiying Zhu**

Huawei Fellow & Senior Vice President, Wireless Research,

Huawei

TALK: Continuous Innovation of Wireless Networks for an Intelligent and Sustainable Future



(11 APR, 9:15 AM CDT)





#### Merouane Debbah

Chief Researcher, Artificial Intelligence and Telecom System Research Centre, Technology Innovation Institute

TALK: Rebuilding the Theoretical Foundations of Communications and Computing



(13 APR, 11:00 AM CDT)





#### Gerhard P. Fettweis

Vodafone Chair Professor, Tu Dresden, and CEO, Barkhausen Institute

TALK: The 6G Radio Access Gearbox PHY Idea



(12 APR, 08:30 AM CDT)





#### Amitabha (Amitava) Ghosh

Nokia Fellow & Head, Radio Interface Group Nokia Bell Labs

TALK: On the Path to 6G - Industry Alignment and Collaboration Is Key to Bring It to Life



(13 APR, 11:45 AM CDT)





#### Kailash Narayanan

Senior Vice President, Keysight, and President Keysight's Communications Solutions Group(CSG)

TALK: 3 Drivers of Network Transformation - Delivering on the 5G and 6G Vision



(11 APR, 11:00 AM CDT)





#### **John Smee**

Senior Vice President of Engineering, Qualcomm Technologies Inc

TALK: Advancing 5G Technology Innovations into the 6G Era



(12 APR, 11:45 AM CDT)





**Eric Starkloff** 

President and CEO, National Instruments

TALK: Commercializing New Spectrum at mmWave and Beyond



(11 APR, 08:30 AM CDT)





Li Tian

Head of Standards, Strategy Department, ZTE Corporation

TALK: When Metaverse Meets Carbon Neutrality



## (12 APR, 11 AM CDT)





**Geng Wu** 

Intel Fellow & Head of Wireless Standards and Technologies, Intel Corporations

TALK: 6G Cloud-native and AI-native Networks



#### **ONE6G VIEW ON ENABLING 6G TECHNOLOGIES FOR VERTICALS**

(13 APR, 2 PM CDT)





**ISRAEL LEYVA MAYORGA** 



**MATE BOBAN** Huawei



**MARCO GIORDANI University Of Padova** Italy



IAN C. WONG **VIAVI** 



**ANDREA GIORGETTI** University Of Bologna



How To Secure Future Communication Networks
(11 APR, 4 PM CDT)





NARENDRA MANGRA Globenet LLC



Trust & Resilience (ISTAR) Lab



CHARLES CLANCY
MITRE Labs



ASHUTOSH DUTTA

Johns Hopkins University

USA



**SUBIR DAS**Peraton Labs



ERIC W. BURGER
Georgetown University
USA



# INDUSTRY PANEL -2 Non-terrestrial Networks in 5G and 6G (12 APR, 2 PM CDT)





ANTONIO FRANCHI European Space Agency UK



**SYMEON CHATZINOTAS**University Of Luxembourg



**MODERATOR** 

GIOVANNI GERACI
Universitat Pompeu Fabra
Spain



ARUNABHA GHOSH Amazon Lab



SEBASTIAN EULER Ericsson Research Sweden



# INDUSTRY PANEL -3 Al for Network and Network for Al (13 APR, 9 AM CDT)





GEOFFREY YE LI Imperial College London



TONY QUEK
Singapore
University of Technology
and Design



OCTAVIA DOBRE
Memorial University
Canada



PEIYING ZHU Huawei Canada



IL-MIN KIM
Queen's University
Canada



HARIS GAČANIN

Aachen University

Germany



TAESANG YOO

Qualcomm



5G and beyond applications for Industry 4.0 and 5.0 (13 APR, 9 AM CDT)





JIADONG DU
China Academy of
Information and
Communications
Technology



MAZIAR NEKOVEE
University of Sussex ZJSU
China

**VALERIO FRASCOLLA** 

**Intel Labs** 



MARION BERBINEAU
Université Gustave Eiffel
France



**BO SUN**ZTE Corporation





KE GUAN
Railway Industry of
Broadband Mobile
Information
Communications,
China



From Theory to Practice - Emerging Antenna Array Technologies for 5G-advanced (13 APR, 9 AM CDT)





JUHO LEE Samsung



**GERHARD FETTWEIS**Vodafone



JOHN E. SMEE Qualcomm



ZHENFEI TANG Huawei



**RUI SUN** Huawei



**EMIL BJÖRNSON**KTH Royal Institute of Technology
Sweden



# INDUSTRY PANEL -6 Advanced Wireless Research In Texas (12 APR, 4 PM CDT)





LINDA P.B. KATEHI, Texas A&M



**TAIYUN CHI**Rice University



**BRIAN KELLEY**University of Texas



SARAH LASELVA Keysight



JAYAKRISHNAN MUNDARATH NXP



**CHARLES BAYLIS**Baylor University



**INDUSTRY PANEL -7** Sub-Thz Innovations For 6G Wireless (12 APR, 2 PM CDT)





**DIDIER BELOT CEA LETI** France



**PEIYING ZHU** Canada



**MODERATOR** 

**CARLOS FAOUZI BADER Technology Innovation Institute** Abu Dhabi



**ALAIN MOURAD** InterDigital Europe UK



**MOHAMED-SLIM ALOUINI** King Abdullah University of Science and Technology Saudi Arabia



Scaling In Public And Private Networks With ORAN (13 APR, 2 PM CDT)





MANISH SINGH Facebook



NEELAM CHANDWANI Intel



YAGO TENORIO Vodafone



ALAN GATHERER Cirrus360



SHAWN HAKL Microsoft



VENKI RAMASWAMY
MITRE Labs



Is XR a technology Waiting for Service or Service Waiting For Technology?
(12 APR, 4 PM CDT)





EMILY CHUNG
Microsoft



LANCE RICHARD KOENDERS

Verizon



MARIE HOGAN Ericsson



HEMANTH SAMPATH

Qualcomm



ARIS PAPASAKELLARIOU
Samsung



**DEVAKI CHANDRAMOULI**Nokia

Ideas To Reality - Bringing 6G To Life Through Testbeds
(11 APR, 4 PM CDT)





CHRIS DICK Nvidia



Texas A&M University



**LIZY PAUL**Lockheed Martin



CHEN CHANG
National Instruments



**KAUSHIK CHOWDHURY**Northeastern University



TIM HENTSCHEL
Barkhausen Institute
Germany





Making Sense Of Comms - Deliberate Co-design Of Signals For Communications And Sensing (12 APR, 4 PM CDT)





CRISTINA SEIBERT NEXTNAV

**SALAM AKOUM** 

AT&T Labs



**PETER A IANNUCCI**University of Texas, Austin



HARISH VISWANATHAN Nokia

**MODERATOR** 



TODD HUMPHREYS
University of Texas at Austin



#### INDUSTRY PANEL -12 SUSTAINABLE 6G SYSTEM (13 APR, 4 PM CDT)





RALF BENDLIN
AT&T Labs



STEPHEN HAYES
Ericsson



MICAELA GIUHAT
Microsoft

**MODERATOR** 



**DEVAKI CHANDRAMOULI** Nokia



#### "WCNC2022 HOTTEST STARTUP COMPETITION"

(11 APR, 4 PM CDT)

#### **PARTICIPANTS**









#### **MODERATOR**



BRIAN MODOFF
MC3 VENTURES LLC



#### **PANEL OF JUDGES**



JOHN E. SMEE

QUALCOMM



**SYED F. ALAM** *ACCENTURE* 



PEIYING ZHU
HUAWEI



JEFF ANDREWS
UNIVESITY OF TEXAS
AUSTIN



## WOMEN IN COMMUNICATIONS ENGINEERING (WICE) PANEL

(13 APR, 4 PM CDT)





**RINACHI GARG**Qualcomm Technologies

**NITA PATEL** 

OTIS



SALAM AKOUM AT&T Labs



LARRY HORNER Intel

**MODERATOR** 



TINA SLIVKA Dell

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Angel Lozano Universitat Pompeu Fabra

LOCAL ARRANGEMENTS CO-CHAIR



Bill Martino IEEE Central Texas Section



LOCAL ARRANGEMENTS CO-CHAIR

Kai Wong QSC & Associated

DEMO/EXHIBITS CHAIR



Richie Leo ZTE

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REGIONAL PATRONAGE CO-CHAIR (WEST)



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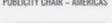
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Gustavo Giannattasio



Titus Lo

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T. Scott Atkinson

TREASURER



Bruce Worthman **IEEE Communications Society** 

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Hikmet Sari NJUPT

CONFERENCE PLANNING/PROJECT MANAGEMENT



Tina Gaerlan **IEEE Communications Society**