



## 8<sup>th</sup> International Workshop on 5G and Future Wireless Technology (5GFWT 2023)



### Workshop Organizers

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Submission link - <https://ants2023.ieee-ants.org/submission-guidelines/call-workshop-papers>

**WS8** - WS6: 8TH INTERNATIONAL WORKSHOP ON 5G AND FUTURE WIRELESS TECHNOLOGY (5GFWT 2023) [[MORE DETAILS](#) | [SUBMIT](#)]

### Abstract

While several 5G networks are in operation, research and development activities in 5G and beyond are gaining momentum. In one hand, we gain the experience and possibility to enhance the performance of the network because of the practical network, many other opportunities are explored which can be supported by 5G network. For example, research towards integrating terrestrial and non-terrestrial network is being investigated in 5G network. Similarly, low altitude platform using unmanned autonomous vehicle (UAV) is also being envisioned to support integration of terrestrial and non-terrestrial network. Efforts towards validating use cases of 5G network are still under investigation. Open Radio Access Network (O-RAN) is another area of research in 5G and beyond. Thus, a number of opportunities are available which can be addressed and discussed. The focus of this workshop is to provide such platform to researchers from industry and academia to deliberate on the current issues arising in and how to overcome them in future. The proposed full day workshop is focused on latest development including use cases and results from experimental validation from the existing 5G networks. The one day workshop would cover a broad range of spectrum of 5G/6G investigation and highlights of future wireless communication.

### Objectives

The workshop is mostly focused to technology, use cases, demonstration related to 5G and beyond. It will provide a platform to researchers, service/network provider to gather together and discuss related issues, challenges and solutions.

## Topics of Interest

List of Topics of interest to be included, but are not limited to:

- 4G, 5G, 6G and Beyond; Small cell network, densification, cell less networks
- AI/ML/DL in Wireless Communication and Networks
- Novel waveforms for 5G and 6G (non-orthogonal and orthogonal)
- New Air interface techniques for 5G and 6G, Full duplex communication
- Flexible RAN architectures and Cloud-RAN, O-RAN, 3GPP Rel 16, Rel 17, Rel 18
- THz Communication, THz Source and Detector, THz applications, Antenna design
- Mobile handset design for 5G, circuit design, prototype, testbed, demonstration.
- Low Complexity Massive MIMO systems, Beamforming, Beam coordination, management, etc
- UAV communication, Satellite, terrestrial and non terrestrial network (NTN) integration
- Interference Mitigation and Interference Management techniques
- Dynamic Spectrum Access and Management, Spectrum sharing, spectrum issue
- Efficient techniques for out-of-band radiation reduction
- New coding solutions for small resource blocks, quantum communication application in B5G
- Advances in synchronization, channel estimation & equalization for multicarrier and wide band single-carrier waveforms
- Software Defined Networks for 5G, NFV in 5G Networks, Cognitive Radio in 5G Networks
- Millimetre wave Communication, Millimetre wave backhaul and access systems
- D2D and M2M Communication, Visible light and 5G communication, etc.
- 5G and advanced wireless technology, high altitude networks, Future mobile wireless technology and related areas.....

## Format and schedule

The workshop is being planned for full day. It will have invited/key note speakers talk, demonstration, panel discussion and paper presentation. Normally, invited talks are arranged from experts groups from Qualcomm, Samsung, Cisco, Ericsson and so on. The panellist would also consist operators, users, providers, and experts from academia and industry.

A tentative proposed schedule being planned is given below.

### Planned format and Tentative Schedule

#### (Full Day)

Day	The Events	Time
FULL DAY	<b>Introduction (by Workshop Organizers)</b>	<b>9.00-9.15</b>
	<b>INVITED-1</b> (As it is an important area, more number of audiences is expected. Therefore, this event can be merged with the main conference, but speakers will be arranged by Workshop organizer)	
	<b>KEY NOTE/INVITED -2/3</b>	
	<b>INVITED -3</b>	
	<b>Technical papers Presentation</b>	
	<b>PANEL DISCUSSION/ Technology DEMO</b> (Again, can be combined with main conference, but panellist will be arranged by Workshop organizer)	
	<b>KEY NOTE/INVITED -4</b>	
	<b>Technical Papers presentation</b>	
	<b>End of workshop (vote of thanks and announcement of next event)</b>	<b>18:00</b>