

## Space Communications, Navigation and Earth Observation Systems in the 5G Era



### 37th ICSSC Conference - Call for Papers

The **37th International Communications Satellite Systems Conference (ICSSC)**, one of the most influential technical conferences on satellite communications systems, will be held in Okinawa, Japan, on **October 29th through November 1st, 2019**. Tuesday, **October 29th will be reserved exclusively to the 37th ICSSC Colloquium**.

The theme of the 2018 Joint Conference (36th ICSSC and 24th Ka Conference) was Space based Communications, Applications and Technologies in the 5G Era. The Colloquium and Plenary Panels introduced various activities for satellite communications usage in 5G networks, including introduction of optical technologies and massive impact of introducing 5G to space industries. The 37th ICSSC will address challenges, looking forward to the employment of new technologies, architectures and system solutions for migration, harmonization and integration to make 5G networks more attractive, effective and advanced.

The theme of the 37th ICSSC is **Ensuring a Realistic Migration, Harmonization and Integration of Space Based Communications Facilities Within the 5G Network**. In addition, satellite communication industries in Asia-Pacific region and the activities will be expected to be introduced during the 37th ICSSC.

With the continued transformation and the rapidly emerging introduction of 5G, the 37th International Communications Satellite Systems Conference is soliciting papers in all areas of activity covering the following topics:

- **New/Emerging Satellite Architectures and Concepts**
  - NGSO Constellations (Technology, System Complexity, Economic Viability)
  - Stratospheric Platforms (Technology, Missions and Market Perspectives)
  - Small Satellites (Technology, Missions, Flight Results and Market Perspectives)
  - Telecommunications Systems and Technology for Space Exploration (Moon, Mars and beyond)
  - Hosted Payloads
  - Digital Broadcast Platforms (Satellite and User Segment Technologies and Market Perspectives)

- **New Satellite Component Technology**
  - High-Speed Optical Communications
  - Optical Payload Technologies
  - Optical Feeder Link technologies and systems
  - Network Protocols (Advanced Coding and Latency Provision)
  - Cognitive Communication Networks
  - Antenna Technology, Reconfigurable Antennas, Active Direct Radiating Array
  - Q/V Band Technology, Experiments and Systems
  - High Speed Onboard Processing and Digital Payload Architecture and Technologies
- **Satellite Systems Research and Technology Development**
  - Security (Physical Layer Through Network Layer)
  - Propagation Research Including Measurement and Modelling
  - Spectrum for New Services
  - Advanced NGSO and GSO inter-system, intra-system, interference mitigation techniques
  - Advanced Digital Payloads and Adaptive Transmit Power Allocation enabling Flexible HTS systems
  - Modular System Design
  - Systems Modelling, Market Assessment and Technology Forecasts
  - Integrated Applications and Services (Telecom, Earth Observation and Navigation)
  - 5G Integration into Satellite Networks
  - Ultra-High Data Rate Modems Power and BW Efficient Modulation
- **New Satellite Markets**
  - UTM (UAS Traffic Management)
  - Smart Cars/Smart Cities (Large Scale IoT)
  - Autonomous Vessels
  - Air Traffic Management, In-flight Entertainment, Airline Operations
  - Package Delivery via Drones
  - Consumer satellite broadband in the era of 5G terrestrial rollout
  - Potential new or emerging applications to reinvigorate FSS-MSS growth
  - Launch Services
  - Commercialization of Space (Tourism and Exploration)

#### IMPORTANT DATES

ABSTRACT DUE	NOTIFICATION OF ACCEPTANCE	FINAL PAPER DUE
May 15 <sup>th</sup> 2019	July 19 <sup>th</sup> , 2019	September 27 <sup>th</sup> , 2019
Information on how to submit your Abstract is <a href="#">here</a>		

The ICSSC 2019 Conference Program website page is [here](#). You're urged to register your interest [here](#) to receive information updates prior to the conference – no obligations or commitments!

#### INFORMATION & INQUIRIES

Information & Inquiries should be directed to ICSSC Conference General Chair : [naoto@nict.go.jp](mailto:naoto@nict.go.jp)