

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



37th ICSSC 2019 Conference Program

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

The first day, **Tuesday, October 29th**, is dedicated to the **Colloquium** which is entitled **Disruptive Expansion of Space Laser Communications**. The Colloquium complements the ICSSC's technical sessions and panels and attendance requires a separate registration.

The **37th ICSSC technical sessions and panels, scheduled from Wednesday, October 30th through Friday, November 1st** are under the joint conference theme of Space Communications, Navigation and Earth Observation Systems in the 5G Era. The theme of the 37th ICSSC is **Ensuring a Realistic Migration, Harmonization and Integration of Space Based Communications Facilities Within the 5G Network**. Satellite communication industries in the Asia-Pacific region and their activities will be presented during this AIAA Co-Sponsored conference.

IMPORTANT DATES

ABSTRACT DUE - June 30th 2019

NOTIFICATION OF ACCEPTANCE - July 19th, 2019

FINAL PAPER DUE - September 27th, 2019

The ICSSC 2019 Conference Program website page is

<http://www.kaconf.org/programICSSC.php>

You're urged to register your interest at

<http://www.kaconf.org/registrationICSSC.php>

to receive information updates prior to the conference
– no obligations or commitments!

INFORMATION & INQUIRIES

Information & Inquiries should be directed to:

The 37th ICSSC Organization
icssc2019org@gmail.com

The 37th ICSSC Technical Program Committee
icssc2019org@gmail.com

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Highlights of the 37th ICSSC

Colloquium

Disruptive Expansion of Space Laser Communications

The Colloquium is organized by the Co-Chairs:

Bernard Edwards, NASA, USA
Zoran Sodnik, ESA, The Netherlands
Morio Toyoshima, NICT, Japan

More information can be found at
<http://www.kaconf.org/colloquium.php>

Plenary Panels

Plenary Panel 1

Satellite Industries and Related Activities in Asia-Pacific Region

As this conference is being held in Japan an opportunity will be taken to discuss the various Satellite activities that are taking place in the Asia-Pacific region. Annual economic growth in the Asia-Pacific region has achieved around 6% in recent years. Concurrently, demand for digitalization and communications is increasing very rapidly. Benefiting from this opportunity, this region has become attractive for commercial satellite industries, as economic opportunities in the commercial and government sector emerge. This plenary panel focuses on introducing the growing satellite industry and related economic activities in the Asia-Pacific region.

Plenary Panel 2

Smart Mobility and GNSS

Smart mobility technologies and trials are being performed world-wide. One hoped-for benefit of this activity is that it will bring solutions for the many of the social issues that the world faces today. This plenary panel will focus on smart mobility technologies and GNSS systems that support smart mobility. One GNSS system to be presented will be "Michibiki", a Japanese GNSS system which consists of Quasi-Zenith satellites and which started its services in November 2018. Other global GNSS and Mobility systems, plus regional systems from Europe, The Americas, and Asia-Pacific will be discussed.

Plenary Panel 3

Satcom + 5G Technology and Applications

Commercially viable Terrestrial 5th Generation Mobile Communications (5G) services will appear very soon. As discussed in our 2018 conference, Satcom has already positioned as a component of 5G and is expected to play important roles in 5G deployments supporting applications such as those expanding coverage to oceans, air space and remote regions. This plenary panel focuses on continuing to introduce ideas and concepts for attractive systems and applications that are targeted to make Satcom work as a fully integrated and seamless component of 5G.

Papers

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.

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**
- **New Satellite Component Technology**
- **Satellite Systems Research and Technology Development**
- **New Satellite Markets**

More details within each of the above topics can be found by visiting
<http://www.kaconf.org/call4papersICSSC.php>

All papers that are accepted and presented at ICSSC 2019 will be published (subject to a signed copyright form) on the Institution of Engineering and Technology's peer-reviewed IET Digital Library and IEEE Xplore platform and indexed in Inspec and submitted for indexing in Ei Compendex and Scopus.

