

IEICE General Conference 2020 Symposium

A: Engineering Sciences Society [Click here to see details.](#)

AS-1. Acoustic signal processing to support society and its application

B: Communications Society [Click here to see details.](#)

BS-1. In-Network Intelligence for Design, Management, and Control of Future Networks and Services(English Session)

BS-2. Special Poster Session ~ Network Technology ~

BS-3. Power Conversion Technologies for Society 5.0

BS-4. QoE in Next Generation Communications supporting Society 5.0 - From QoE Evaluation to Network Control-

BS-5. Poster Session for Young Researchers - Internet Architecture

C: Electronics Society [Click here to see details.](#)

CS-1. Magnetic and storage technologies to create a new era of high-speed communications

D: Information and Systems Society [Click here to see details.](#)

DS-1. COMP Student Symposium

A: Engineering Sciences Society

AS-1. Acoustic signal processing to support society and its application

As is obvious from the definition of the sound as “sound wave and auditory sense induced by it” (JISZ8106), the researches on comfortable sound for the auditory sense are recently paid attention as well as the analysis and control of sound signal. In addition, acoustic signal is used to predict state changes such as noncontact diagnosis method in production systems. Thus, it is necessary to extract useful information from acoustic signals and perform appropriate signal processing. In this symposium session, a forum to find new development is proposed through the presentations and lively discussions of researches on signal processing method and its application for state estimation, evaluation and control using acoustic signals such as speech, sound and vibration in daily life.

B: Communications Society

BS-1. In-Network Intelligence for Design, Management, and Control of Future Networks and Services

A large number of user equipment, including vehicles and Internet of Things (IoT) devices, will be connected in the next generation mobile network systems, such as 5G. In response to the demands for large-scale and complex network services, Embedding Intelligence within networks for enabling autonomous and efficient operations has been gaining much attention. In addition, recent advances in artificial intelligence (AI) technologies, including machine learning and sensing technologies, and softwarization technologies, such as SDN, NFV, and edge/fog computing, will definitely promote the creation of novel management and control technologies for the future networks with intelligence. This symposium discusses cutting-edge and innovative technologies for such future networks, ranging from their design, management, and control methods, up to new network services and applications.

BS-2. Special Poster Session ~ Network Technology ~

This session handles themes on Network Technology. The presentation style is poster session so that people in the room including speakers could hold an active and fruitful discussion anytime during the session and could have feedback or tips for his or her own study. As the session aims to have a discussion about research topics in progress, 1 written paper would be sufficient.

BS-3. Power Conversion Technologies for Society 5.0

Power demand will increase because advanced technologies such as autonomous car, drone and AI (Artificial Intelligence) will progress in Society 5.0 that cabinet office has designed a strategy. We should discuss about power conversion technologies such as improving efficiency, downsizing, noise reduction, intelligent control and design method because of increasing highly level requirements for those. In addition, the robustness of infrastructures is very important in Japan which has many natural disasters. Therefore, it also needs to share about their technologies such as power generation, storage, and VPP. We propose it as the theme of integrated symposium as it is significance especially to have it in Hiroshima which had an enormous rain disaster in 2018.

BS-4. QoE in Next Generation Communications supporting Society 5.0 - From QoE Evaluation to Network Control-

In Society 5.0 where AI realized advanced cyber space and physical space fusion, "feeling" of humans need to be integrated in system for human-centric society. For sharing information and knowledge, and creating new values by connecting all things and humans by IoT, QoE is important in a design of next generation networks including 5G. This session seeks up-to-date contributions for QoE evaluation and network control based on QoE, communication behavior engineering, and so on in various applications and media such as AR/VR/MR utilizing haptics as well as audio and visual media. The session provides opportunity to discuss about latest issued on the technologies.

BS-5. Poster Session for Young Researchers - Internet Architecture

From 2016, technical committee on internet architecture (TCIA) regularly provides a poster session for young researchers in General Conference in each year. Young researchers including students are encouraged to submit one or two page manuscripts for the poster session. The poster presenters must bring their posters in the session. English or Japanese language is allowed to use in the manuscript and poster. TCIA will select excellent poster awards.

C: Electronics Society

CS-1. Magnetic and storage technologies to create a new era of high-speed communications

In order to support 5G cellular network technology based applications such as VR/AR solution, self-driving, and real-time sensor network, memory and storage technologies play a crucial role. Memories and storages with large capacity will be highly required. And, the demands for memories with new concept have increased to realize performances with high speed, high density, and low-power consumption. Moreover, novel sensors and actuators are necessary for IoT platforms and sensor networks in 5G technology. On this symposium, we look over the magnetic and storage technologies to create a new era of high-speed communications, and discuss possibilities and developments of the related elemental technology.

D: Information and Systems Society

DS-1. COMP Student Symposium

In the field of theoretical computer science, wide spread view over various topics is necessary for outstanding researches, and only those with such view can develop the research frontier. Therefore, academic exchange among students with different research themes is effective for supporting the growth of high-level researchers.
The purpose of this symposium is to provide opportunities for their research communication. The presenters are required to be students, while the other coauthors may be regular members.