

# SENSORCOMM 2025

## Forward

The Nineteenth International Conference on Sensor Technologies and Applications (SENSORCOMM 2025), held between October 26<sup>th</sup>, 2025, and October 30<sup>th</sup>, 2025, in Barcelona, Spain, was a multi-track event covering related topics on theory and practice on wired and wireless sensors and sensor networks.

Sensors and sensor networks have become a highly active research area because of their potential of providing diverse services to broad range of applications, not only in science and engineering, but equally importantly on issues related to critical infrastructure protection and security, health care, the environment, energy, food safety, and the potential impact on the quality of all areas of life.

Sensor networks and sensor-based systems support many applications today on the ground. Underwater operations and applications are quite limited by comparison. Most applications refer to remotely controlled submersibles and wide-area data collection systems at a coarse granularity.

In wireless sensor and micro-sensor networks energy consumption is a key factor for the sensor lifetime and accuracy of information. Protocols and mechanisms have been proposed for energy optimization considering various communication factors and types of applications. Conserving energy and optimizing energy consumption are challenges in wireless sensor networks, requiring energy-adaptive protocols, self-organization, and balanced forwarding mechanisms.

We take the opportunity to warmly thank all the members of the SENSORCOMM 2025 technical program committee, as well as all the reviewers. The creation of such a high-quality conference program would not have been possible without their involvement. We also kindly thank all the authors who dedicated much of their time and effort to contribute to SENSORCOMM 2025. We truly believe that, thanks to all these efforts, the final conference program consisted of top-quality contributions. We also thank the members of the SENSORCOMM 2025 organizing committee for their help in handling the logistics of this event.

We hope that SENSORCOMM 2025 was a successful international forum for the exchange of ideas and results between academia and industry for the promotion of progress in the field of sensor technologies and applications.

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