2023 Joint IEEE SPS-AESS and EURASIP Summer School on Integrated Sensing and Communication: A Multidisciplinary perspective

BRIEF REPORT

The 2023 Joint IEEE SPS-AESS and EURASIP Summer School on *Integrated Sensing and Communication: A Multidisciplinary perspective*, took place in Parador de Baiona, Spain, from June 26th to June 19th, 2023. The key organizers of the summer school were North Carolina State University (NC State), the University of Vigo (UVIGO), and Gradiant. NC State led all the activities related to the organization, UVIGO provided staff and equipment to enable and supervise the virtual lectures and lecture recordings, and Gradiant operated as the financial tool for the summer school, receiving registration fees, and making payments to the different service providers as needed. Sponsors included the IEEE Signal Processing Society, the IEEE Aerospace and Electronic Systems Society, EURASIP, Qualcomm, Remcom, and Gradiant. In total, 62 registered participants from 13 different countries, including 11 participants from industry. The table below shows the number of participants according to their IEEE/SPS/AESS/EURASIP membership and student/non-student category. 31 students participated in the event.

IEEE SPS/AESS/EURASIP Student member	15
IEEE Student member	10
Non-SPS/AESS/EURASIP member student	6
SPS/AESS/EURASIP member	8
IEEE Member	1
Non-student, non-SPS/AESS/EURASIP member	6
Complimentary registrations sponsors (non-student)	5
Speakers from academia (in person)	7
Speakers from academia (virtual)	2
Industry speakers (in person)	2
Total	**62**

The program consisted of 16 hours of in person lectures and 2 hours of virtual lectures from speakers from academia, and 2 hours of industry keynotes. Every day at the school ended with a one-hour panel were the speakers for that day and the attended discussed about the topics presented during the lectures. All the speakers are leading experts in different topics related to integrated sensing and communication, providing a perspective that represent different research communities: Fabiola Colone and Daniel Bliss provided a radar centric approach to ISAC in their in-person lectures; Robert Heath, Nuria Gonzalez Prelcic, and George Alexandropoulos shared their view from a signal processing for communications perspective; Josep Jornet provided an overview of operation at THz bands accounting for hardware operating at these frequencies, and finally, Daqing Zhang presented the advances of the computer science community in the areas of gesture and human activity recognition.

There was also student interactive session on Tuesday 27th, where the students presented in three slides an original idea that they are developing in the context of their doctoral studies. The "Best Original Work" award, including a certificate and a gift was given to Jacopo Pegoraro during the common dinner held on Wednesday 28th. The committee evaluating the student

presentations included three summer school speakers: Nuria Gonzalez-Prelcic, Robert Heath, and Josep Jornet. The two industry keynotes included the presentation from Alberto Rico Alvariño (Qualcomm) on the path from research to standardization for ISAC technologies, and the talk by Tarun Chawla (Rencom) on channel modeling tools for integrated sensing and communications. The pictures below show different moments of the summer school, including the welcome and school overview, the attendees during the Q&A time after one of the lectures, one of the panels, the award presentation, and a group picture during a coffee break.

More information: https://conference.ece.ncsu.edu/isac/