



Issue 4
Fall 2020

ICUAS Association, Inc.

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EDITORIAL

Dear Readers:

Welcome to the Fall 2020 issue of the ICUAS Association Newsletter.

After a very eventful summer that centered around efforts to make sure ICUAS'20 was 'transformed' to a hybrid conference, and although the COVID-19 pandemic is still present, we have started to plan ahead for next year's conference, ICUAS'21.

This Newsletter summarizes ICUAS'20 and presents observations that will help the 2021 Organizers run a more successful conference.

ICUAS' 20 CLOSING REPORT

ICUAS'20 took place on September 1-4 in Athens, Greece. It was a 'hybrid' conference allowing for virtual (video playback and remote-live) and physical onsite presentations.

The decision to switch to a 'hybrid' conference was made in late April / early May. The Organizing Committee members, the Advisory Committee members in Greece, along with local and state authorities in Greece and the hotel management team corresponded regularly for a period of five months, from April to late August, with the aim to capitalize on, and overcome, any possible, yet inconceivable, challenges. In late August, the meeting space in the venue was completely reconfigured for safety and social distancing; the hotel safety protocols were e-mailed to all participants; during the conference, every morning, each physical participant was offered a 'personal safety kit' with a mask, hand sanitizer, pen, notebook and energy bar. The social agenda events took place in open space only – the roof garden pool of

the hotel - with no more than 50 people present in a dedicated area.

The Technical Program included 238 papers. When it was announced that ICUAS'20 will be of a 'hybrid' nature, 206 video presentations accompanied the uploaded final version papers. The accepted papers were from the following countries (based on the corresponding author's affiliation): Canada, China, Czech Republic, Denmark, Egypt, France, Germany, Greece, India, Israel, Italy, Japan, South Korea, Latvia, Luxembourg, Mexico, Netherlands, Norway, Paraguay, Poland, Portugal, Russia, Singapore, Spain, Sweden, Switzerland, Taiwan, Turkey, United Arab Emirates, United Kingdom, and USA.

The three-day program was composed of 39 technical sessions on: Autonomy, Path Planning, Swarms and Networked Swarms, UAS Control Architectures, Navigation, Sense and Avoid Systems, Sensor Fusion, UAS Applications, Mini and Micro UAS, Manned / Unmanned Aviation, UAS Testbeds, Energy Efficient UAS, Technology Challenges, Levels of Safety, Risk Analysis, Bio-inspired UAS, Airspace Control, Airspace Management and Air Vehicle Operations. The technical sessions, four in parallel every day, were attended by an average of 35-40 participants, physical and virtual. Three keynotes were also given:

New Aerial Robotic Manipulators for Efficient and Safe Operation, Dr. Anibal Ollero, University of Seville, Head of the Robotics, Vision and Control Group, and Scientific Advisor of the Center for Advanced Aerospace Technologies.

Control Systems and AI in the Quest for Autonomy, Dr. Panos J. Antsaklis, H. C. & E. A. Brosey Professor, University of Notre Dame.

Unmanned Aerial Systems, Societal Challenges and Systems Efficiency, Grégoire

Guerout, Lead Project Manager, Alerion, France, Member, French Bureau de Normalisation de l'Aéronautique et de l'Espace (BNAE).

ICUAS'20 allows for several observations that may help the organization of future events, particularly if such events are of hybrid nature – observations are tailored to a 300-participant conference:

- The number of physical participants, on average, was 50 (about 17%)
- The number of virtual attendees was between 50 – 80 (between 17% to 27%)
- Keynotes were attended by about 100 – 120 physical and virtual participants (between 33.3% - 40%)

A logical, reason for the limited virtual attendance was the time zone differences. A second possible reason may be the fact that once the video presentation was uploaded and scheduled to be played back in the session, 'the job was done' – no need even for the corresponding author to be online.

The most unusual components of ICUAS'20 were the obvious lack of networking, socialization and collegiality aspects, the vivid conversations among individuals, the technical discussions and the possible formation of new partnerships and teams for research and projects of common interest. For those of us who have participated for years in IEEE conferences, we always felt, and still feel, that these components were an integral part of the overall conference. Even the Q&A part after each presentation seemed to be different, not engaging, although interactive to some level, and yet not bad.

One point that needs following up and should perhaps be discussed by the supporting societies and IEEE is that of video quality. We realize this is new to all of us. But as we have a template for conference paper submission and well-established standards, we should develop the same for video presentations. Granted, authors knew that they needed to use mp4, the aspect ratio, maximum size, etc. However, a more detailed framework may be needed to make sure all videos are top notch.

Feedback from participants

To learn from our mistakes and to make sure that future conferences are of the highest possible quality, the Organizing Committee members requested

feedback from the physical and virtual participants. Collectively, the following issues were raised, which need to be considered from now on:

- It is best if the Session Chair or vice-chair is onsite to monitor and coordinate paper presentations and Q&A. This facilitates Q&A from onsite participants.
- Video and physical paper presentations must be kept precisely on time. This means that video presentations must be exactly 18 minutes for a 20-minute interval per each paper. This allows for normal flow and helps virtual participants switch from session to session.
- It should be made clear to the presenter / corresponding author that s/he must be online during the video presentation to answer any questions. This is obviously challenging due to the time difference.
- Video presentations must be reviewed before final acceptance to guarantee quality – hence the template may help.
- The 'hybrid' nature of the conference limits interactions, particularly since most virtual presentations were video playback.
- It will be beneficial if, from now on, the remote presenter 'sees' the actual session in real-time. This may be achieved either using another platform, or using cameras in each session, connected to the zoom platform.
- Independent of the pandemic, it may be beneficial to consider the possibility of virtual attendance with a reduced registration fee.

CONTACT US

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