Avionics Systems Panel
Accomplishments & Upcoming Plans
AESS BoG Meeting

Rob Sabatini
Chair, Avionics Systems Panel
Avionics Systems Panel

The Panel is composed of IEEE Associate or higher level members who are representatives of industry, government laboratories, educational institutions and professional societies, and who are active in the domain of Avionics. Its main objectives are:

- Promote and support collaborative research initiatives in the domain of Avionics.
- Develop and disseminate high-quality IEEE publications in the domain of Avionics.
- Promote and support educational activities in the domain of Avionics.
- Sustain and oversee the programs of the IEEE/AIAA Digital Avionics Systems Conference (DASC) and the Integrated CNS Conference; and contribute to other conferences and dissemination initiatives.
- To manage the nomination and selection of candidates for IEEE Awards in the domain of Avionics.
- To encourage the submission of nominations for IEEE Fellows and Senior Members in the domain of Avionics.
- To recommend and support new IEEE Standards or revisions of existing IEEE standards pertaining to the domain of Avionics.
Accomplishments & Activities

- The ASP continued its active engagements in the avionics research, innovation, education, standards, cyber and UAV initiatives in 2021.

- The Education Committee and R&I Committees led the development of two AESS Magazine papers:
  


The first paper listed is a position paper portraying the ASP vision on avionics systems future evolutions, with an identification of key research challenges and industry-focused innovation opportunities.

The second paper listed stimulates formal education on avionics systems through both undergraduate and post-graduate programs in universities. This is to mitigate the projected shortfall of qualified avionics engineers to sustain Research, Development, Test & Evaluation (DRT&E), Operations and Maintenance, Repair and Overhaul (MRO) activities in the field.
Accomplishments & Activities

- The Publications Committee led a Special Issue of the Magazine (*Avionics Systems: Future Challenges*), published in April 2021. Editorial paper:
  

- The R&I Committee and Publications Committee proposed two additional Special Issues for 2021:
  
  - *UAS Traffic Management (U-Space) and Urban Air Mobility*, currently being finalized (CfP publication in April/May)
  
  - *Space Domain Systems*, focusing on Space Domain Awareness and Space Traffic Management (CfP already published)

- Several members of the ASP served as Distinguished Lecturers (DL) and also contributed to the DL Webinar Series. These DLs expanded the offerings of the IEEE lectures, webinars and potential tutorials at future conferences or Chapter meetings.

- The Avionics Conference Committee actively supported the organization and management of the DASC and ICNS Conferences. ASP members assisted with conference tutorials, local arrangements, and overall planning.
Accomplishments & Activities

- The Autonomous Systems Committee planned drone competitions as STEM engagement activities with universities and high schools. These competitions will be part of DASC 2021 and successive editions.

- The R&I and UAV Committee members are collaborating with NASA and participating to AAM and UTM technical meetings and workshops.

- The Awards Committee is discussing the possible creation of a new Avionics Award. One of the candidatures submitted by the Awards Committee was selected for the IEEE AESS Early Career Award. This will be formally conferred at DASC 2021.

- The R&I, Education and Standards Committees collaborated with ICAO, IFATCA, EASA, EUROCAE and SESAR initiatives to promote avionics education and the evolution of certification standards for UAS Traffic Management and Advanced Air Mobility.