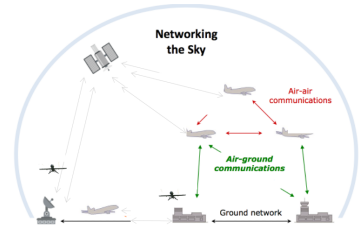


2nd Workshop on Secure and Reliable Communication and Navigation in the Aerospace (SRCNAS)

Co-located with the 24th IEEE International Symposium on a World of Wireless, Mobile and Multimedia
Networks (WoWMoM)

<https://coe.northeastern.edu/Groups/wowmom2023/index.html>

June 12-15 2023, Boston, Massachusetts, USA



Nowadays, digitization is all around us and is moving further and further into a wide variety of areas (including transportation, smart home, eHealth, and knowledge transfer). Due to the enormous data exchange, the question arises whether the available resources (bandwidth, data formats, radio standards) are still adequate. This is particularly questionable in the field of aviation, where a lot of data must be produced, evaluated, and distributed in a very short time, and this data is usually very sensitive, sometimes involving critical actions. In the case of safety-related actions protection from unauthorized access, misuse, and manipulation is essential. Various statistics show that the systems used in aviation are very interesting for cyber-attacks and the collected or exchanged data are mostly inadequately secured.

Therefore, this workshop deals with the topic of secure and trustworthy communication and navigation in aviation. Here, not only current vulnerabilities will be identified, but also concrete research results will be presented and discussed in aeronautics and in the specified application area of Urban Air Mobility (UAM) scenarios, civil aircraft to aircraft data link concepts like LDACS and military system-of-systems (CombatCloud) architectures. Secure data links, which are resistant to encryption, jamming and spoofing are vital for safe and secure civil and military applications of unmanned air systems operations. A few years ago, airspace could only be used for commercial purposes by incumbent operators and thus the scope of communication was limited. But this has already changed due to digitization and will change even more significantly with the arrival of new entrants in the air space. This means that soon a high number of aircraft will have to share space and data volume in previously unforeseen ways. More and more unmanned aerial vehicles – drones and air taxis – will enter the system, so that data will have to be analyzed or exchanged even faster between even more operators to sustain the safety and economic viability of aviation. Thus, we invite experts and researchers from various areas of aerospace to discuss the topic and specify any challenges and frameworks for the future. The proceedings will be presented at the workshop and included in the WoWMoM 2023 proceedings.

Topics of interest among others in the investigates area are:

- Urban Air Mobility (UAM) applications and drone technologies
- Military data link concepts like LINK 16 and successors
- Civil aeronautical Air-to-Air (A2A) communication systems
- Network infrastructure & cost simulations
- Threat propagation in safety-critical networks
- Security risk assessment, mitigation, assurance, and testing
- Model-based (security) engineering
- Use-cases in commercial and private sector
- Communication strategies over all layers addressing reliability, security, and trustworthiness support

Important Dates:

Abstract Registration:
March 6, 2023 (firm, AoE)
<https://edas.info/N30625>

Paper Submission:
March 6, 2023 (firm, AoE)
<https://edas.info/N30625>

Acceptance Notification:
April 1-14, 2023

Camera Ready:
April 24, 2023 (firm)

Technical Program Committee:

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Paper Submission Guidelines:

All submissions must be original work. Plagiarism (whether of others or self) will be grounds for rejection. The submitter must clearly document any overlap with previously published or simultaneously submitted papers from any of the authors. Failure to point out and explain overlap will be grounds for rejection. Simultaneous submission of the same paper to another venue with proceedings or a journal is not allowed and will be grounds for automatic rejection.

Accepted WoWMoM 2023 workshop papers will be included in the conference proceeding published in the IEEE Xplore Digital Library, showing their affiliation with IEEE WoWMoM. We expect all accepted workshops to adhere to a common paper submission (i.e., two-column IEEE conference style, maximum paper length of 6 pages) and reviewing schedule, as outlined in the dates indicated below. Workshop Co-chairs will provide support for organizers of accepted workshops to ensure a high-quality workshop program and that accepted articles meet all IEEE publication requirements.

To be included in the conference proceedings, an author of an accepted paper is required to register for the conference at the full (member or non-member) rate and the paper must be presented by an author of that paper at the workshop.

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