



2019 INTERNATIONAL CONFERENCE ON UNMANNED AIRCRAFT SYSTEMS

<http://www.uasconferences.com>

June 11-14, 2019

Atlanta Marriott Buckhead Hotel & Conference Center
3405 Lenox Road NE, Atlanta, Georgia 30326



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See www.icuas.com for news about the ICUAS Association Inc.



The 2019 International Conference on Unmanned Aircraft Systems, **ICUAS'19**, will be held on June 11-14, in the Atlanta Marriott Buckhead Hotel and Conference Center, <https://www.marriott.com/atlbcc>, which is situated in a supreme location in the heart of Atlanta. June 11 will be a Workshop/Tutorial day, followed by a three-day technical Conference on June 12-14. Judging from the interest ICUAS has drawn over the past eight years and its growth, **ICUAS'19** is expected to continue on this path and attract the highest number of participants from academia, industry, federal and state agencies, government, the private sector, users, practitioners and engineers who wish to be affiliated with and contribute technically to this highly demanding and evolving and expanding field. Details may be found at <http://www.uasconferences.com> and related links. **ICUAS'19** is fully sponsored by the **ICUAS Association**, which is a non-profit organization. Information about the Association may be found at www.icuas.com. The major themes of **ICUAS'19** will be: **design for trusted and assured autonomy, metrics for autonomy, and design for resilience**. These focus area topics are center-stage in the attempt to design and build high-confidence UAS/RPAS. In addition, **ICUAS'19** will include a separate track on regulations, policy, legal and ethical issues that are essential to allow for integration of UAS/RPAS in the national airspace. National and international organizations, agencies, industry, military and civilian authorities are working towards defining roadmaps of UAS/RPAS expectations, technical requirements and standards that are prerequisite to their full utilization, as well as legal, policy and ethical issues. The next generation of UAS/RPAS is expected to be used for a wide spectrum of civilian and public domain applications. Challenges to be faced and overcome include, among others, see-and-avoid systems, robust and fault-tolerant flight control systems, payloads, communications, levels of autonomy, manned-unmanned swarms, network-controlled swarms, as well as challenges related to policies, procedures, regulations, safety, risk analysis assessment, airworthiness, certification issues, operational constraints, standardization and frequency management, all of paramount importance, which, coupled with 'smart', 'environmentally friendly' cutting edge technologies will pave the way towards full integration of UAS/RPAS with manned aviation and into the respective national airspace. **ICUAS'19** aims at bringing together different groups of qualified military and civilian representatives worldwide, organization representatives, funding agencies, industry and academia, to discuss the current state of unmanned aviation advances, and the roadmap to their full utilization in civilian and public domains. Special emphasis will be given to research opportunities, and to 'what comes next' in terms of the essential technologies that need to be utilized to advance the state-of-the-art. Conference topics include:

Airspace Control	Integration	See/Sense-Detect-and-Avoid Systems
Airspace Management	Interoperability	Security
Airworthiness	Levels of Safety	Sensor Fusion
Autonomy	Manned/Unmanned Aviation	Smart Sensors
Biologically Inspired UAS	Micro- and Mini- UAS	Standardization
Certification	Networked UAS	Technology Challenges
Control Architectures	Payloads	Training
Energy Efficient UAS	Path Planning and Navigation	UAS Applications
Environmental Issues	Regulations	UAS Communications
Fail-Safe Systems	Reliability of UAS	UAS Testbeds
Frequency Management	Risk Analysis	UAS Transportation Management (UTM)

Unmanned system collaboration/coordination, formation control, validation/verification and unmanned system design for trusted autonomy, are topics of great interest to **ICUAS'19**. Through Keynote addresses, round table discussions and presentations, it is expected that the outcome of the Conference will be a clear understanding of what industry, military, civilian, national/international authorities need, and what are the crucial next steps that need to be completed before UAS/RPAS are utilized in everyday life applications.

IMPORTANT DATES February 12, 2019: Full Papers/Invited Papers/Tutorial Proposals Due

April 15, 2019: Acceptance/Rejection Notification

May 10, 2019: Upload Final, Camera Ready Papers; Early Registration Deadline

PAPER SUBMISSION: Papers must be submitted electronically. Go to <https://controls.papercept.net>. Click on "Submit a Contribution to ICUAS'19 and follow the steps. The paper format must follow IEEE paper submission rules. Submitted papers should be classified as *Contributed*, *Poster* or *Invited Session* papers. The maximum number of pages for a contributed/invited paper submission is 10, and for a poster paper is 6. Accepted, contributed/invited session papers only, will be allowed up to two additional pages for a charge of \$100 per additional page. Illustrations and references are included in the page count. Poster papers will allow for researchers/practitioners to present novel/cutting edge ideas with potential, however, not yet fully developed. **Invited Sessions:** Proposals must be submitted/uploaded electronically. A Summary Statement describing the motivation and relevance of the proposed session, paper titles and author names must be uploaded electronically by February 12, 2019. Authors must also submit full versions of invited papers electronically, marked as 'Invited Session Paper'. **Workshops/Tutorials:** Proposals for workshops/tutorials should contain title, the list of speakers, and extended summaries (2000 words) of their presentations. Proposals must be sent by e-mail to the Tutorial/ Workshop Chair by February 12, 2019.

Review Process: All submitted papers will undergo a peer review process following IEEE rules and standards. Authors will be notified of results at the latest by April 15, 2019. Accepted papers must be uploaded electronically no later than May 10, 2019. Authors are encouraged to accompany their presentations with multimedia material, which will be included in the Conference Digital Proceedings. **Only** Contributed or Invited Session papers will be acquired by IEEE and they appear in IEEE Xplore. **Paper presentation:** Contributed/Invited Session papers will be grouped in Technical Sessions and will be allocated 20 minutes for oral presentation, which includes questions from the audience. Poster papers will be grouped based on subject. Presenters are encouraged to supplement the poster with additional slides, video or software demonstrations, etc. All poster paper presentations will be scheduled in one day.

For any additional information about **ICUAS'19**, e-mail Kimon Valavanis, kimon.valavanis@du.edu.