



2018 INTERNATIONAL CONFERENCE ON UNMANNED AIRCRAFT SYSTEMS

<http://www.uasconferences.com>

June 12-15, 2018

Dallas Marriott City Center, 650 N. Pearl Str. - Dallas, 75201



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The 2018 International Conference on Unmanned Aircraft Systems, **ICUAS'18**, will be held on June 12-15, in the Dallas Marriott City Center, <http://www.marriott.com/hotels/travel/daldd-dallas-marriott-city-center> that is situated in the heart of a vibrant Arts District area. June 12 will be a Workshop/Tutorial day, followed by a three-day technical Conference on June 13-15. Judging from the interest ICUAS has drawn over the past eight years and its growth, **ICUAS'18** is again 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'18** 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 theme of **ICUAS'18** will be twofold: **UAS/RPAS design for assured autonomy and regulations, policy and law to enable UAS/RPAS technologies**, both important and timely topics. The main novelty of ICUAS 2018, is a completely 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 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 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 with manned aviation and into the respective national airspace.

ICUAS'18 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 UAS advances, and the roadmap to their full utilization in civilian and public domains. Special emphasis will be given to current and future research opportunities, and to 'what comes next' in terms of the essential technologies that need to be utilized to advance further UAS. 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 autonomy, collaboration and coordination, formation control, validation and verification and unmanned system design for assured autonomy, are topics of great interest to **ICUAS'18**.

Through Keynote addresses, round table panel 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 are utilized in everyday life applications.

IMPORTANT DATES

February 12, 2018:

April 15, 2018:

May 7, 2018:

April 15 – May 7, 2018:

Full Papers/ Invited Papers/Tutorial Proposals Due

Acceptance/Rejection Notification

Upload Final, Camera Ready Papers

Early Registration

PAPER SUBMISSION

All papers must be submitted and uploaded electronically. Go to <https://controls.papercept.net>. Click on the link "Submit a Contribution to **ICUAS'18**" and follow the steps. The paper format must follow IEEE paper submission rules, two-column format using 10 point fonts, Times New Roman. The maximum number of pages per submitted paper is 10. For accepted papers, up to two additional pages will be permitted for a charge of \$100 per additional page. Illustrations and references are included in the page count. **Invited and Special Sessions:** Proposals for invited/special sessions must be submitted/uploaded electronically. A Summary Statement describing the motivation and relevance of the proposed session, invited paper titles and author names must be uploaded electronically by February 12, 2018. In addition, authors must submit **FULL versions of invited papers** electronically, through <https://controls.papercept.net>. Each paper must be 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, 2018. **Paper Review Process:** All submitted papers will undergo a peer review process coordinated by the Program Chairs, Advisory Committee Members, IPC members and qualified reviewers. Authors will be notified of results at the latest by April 15, 2018. *Accepted papers must be uploaded electronically no later than May 7, 2018.* Authors are encouraged to accompany their presentations with multimedia material, which will be included in the Conference Digital Proceedings. Conference Proceedings will be acquired by IEEE and they appear in IEEE Xplore.

For information about the ICUAS Association, Inc., see www.icuas.com.