

2014 INTERNATIONAL CONFERENCE ON UNMANNED AIRCRAFT SYSTEMS (ICUAS'14)



May 27-30, 2014
Wyndham Grand Orlando Resort
Bonnet Creek
Orlando, FL 32821

<http://www.wyndhamgrandorlando.com>



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HONORARY GUESTS AND KEYNOTE SPEAKERS

Peter van Blyenburgh
President and Founder
Unmanned Vehicle Systems International

Ing. Carmine Cifaldi
Italian Civil Aviation Authority
Director, Aeronautical Products Certification & Regulation

Dr. Naira Hovakimyan
Dept. of Mechanical Science and Engineering
Advanced Control Research Laboratory
University of Illinois at Urbana Champaign

Mark A. Motter, PhD, PE
NASA Langley Research Center

The 2014 International Conference on Unmanned Aircraft Systems, **ICUAS'14**, will be held in Orlando, FL, on May 27-30. Orlando is the home of the Disney World, one of the best attractions and touristic locations worldwide. May 27 will be a Workshop/Tutorial day, followed by a three-day technical Conference. Judging from the interest ICUAS has drawn over the past six years and its growth, **ICUAS'14** is expected to attract the highest number of participants from academia, industry, federal/state agencies, government, the private sector, users, practitioners and engineers who wish to be affiliated with and contribute technically to this highly demanding and rapidly evolving and expanding field. Details may be found at <http://www.uasconferences.com> and related links. **ICUAS'14** will be fully sponsored by the **ICUAS Association**, a non-profit organization; Information about the organization may be found at www.icuas.com. The theme of **ICUAS'14** will focus on the very challenging topics of 'developing UAS standards'.

National and international organizations, agencies, industry, military and civilian authorities are working towards UAS integration into the national airspace, towards defining roadmaps of UAS expectations, technical requirements and standards that are prerequisites 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, sense-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'14 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 military and integration in civilian domains. Focused interests of diverse groups involved in UAS research and development will be discussed. 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 but are not limited to:

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

Through Keynote/Plenary addresses, invited and solicited presentations, and round table discussions, it is expected that the outcome of the Conference will be a better understanding of what industry, the military and civilian national and international authorities need, and what are the crucial next steps that need to be completed before UAS are widely accepted even in everyday life applications.

IMPORTANT DATES

February 3, 2014:

April 14, 2014:

May 9, 2014:

April 15 – May 9, 2014:

Full Papers/ Tutorial Proposals due

Acceptance/rejection notification

Upload final, camera ready papers

Early Registration

SPONSORS

Financial Sponsorship:

Technical Co-Sponsorship:

ICUAS Association

IEEE Control Systems Society (CSS)

IEEE Robotics and Automation Society (RAS)

Mediterranean Control Association (MCA)

KS&P Technologies

PAPER SUBMISSION: Papers must be submitted electronically through controls.papercept.net. Go to <https://controls.papercept.net>. Click on the link "Submit a Contribution to ICUAS'14 and follow the steps. The paper format must follow IEEE paper submission rules, two-column format using 12 point fonts, Times New Roman. The maximum number of pages per paper is 12. Illustrations and references are included in the page count. Submitted papers will undergo a peer review process coordinated by the Program Chairs, the ICUAS Advisory Committee Members, the IPC and qualified reviewers. Authors will be notified of acceptance at the latest by April 14, 2014. **Accepted papers must be uploaded electronically no later than May 9, 2014.** Authors are encouraged to accompany their presentations with multimedia material (i.e., videos), which will be included in the Conference Digital Proceedings. Conference Proceedings will be acquired by IEEE. **Authors of accepted papers will be invited to submit significantly different versions of the ICUAS'14 papers to the Journal of Intelligent and Robotic Systems (JINT), which will be published in a JINT Special Volume and in a Special Volume Book as part of the Springer series on Intelligent Systems, Control and Automation (ISCA).**