# Call for Papers



## Symposium on Small Unmanned Aerial Vehicle Technologies and Applications

as part of the 7$^{th}$ ASME/IEEE International Conference on

### Mechatronic and Embedded Systems and Applications

August 29-31, 2011 Washington, DC, USA

http://iel.ucdavis.edu/mesa/MESA11/

**Objectives:** In recent years, new developments in MEMS sensors, embedded systems, wireless technologies as well as cognitive sciences and artificial intelligence made it possible to use small and affordable unmanned aerial vehicles (UAVs) in both military and civilian applications. While the UAV market so far has been mainly driven by military and security applications, this new generation of UAVs also has the potential to generate a broader range of civilian applications like in- and out-door surveillance, disaster management, agriculture, remote sensing etc. However, there are still many unsolved problems in the area of small UAVs like the design of vehicles with a higher degree of intelligence and autonomy, the integration in the airspace, sense and avoidance technologies or the coordination of teams of small UAVs, to mention only a few. This symposium aims at presenting latest results in small UAV research and application. Manuscripts are solicited in the following topics but not limited to:

- Fixed-wing small UAV technologies
- Small UAV as flying sensors and applications
- State estimation and fault diagnosis for small UAVs
- Multi-UAV cooperative navigation and control
- Small UAV software architectures
- Rotary-wing small UAV technologies
- Low cost IMU and autopilot development
- Vision-based navigation for small UAVs

- Low cost UAV platforms
- Resilient flight controls
- Small UAV software architectures
- Resilient flight controls
- Fault-tolerant control
- Airworthiness
- Student UAV/UAS competitions

**Paper Submission:** Manuscripts shall be no longer than 10 pages and shall adhere to the ASME author guidelines. Word and LaTeX templates are available from ASME to assist authors in preparing their papers for publication. Final papers in PDF format must be electronically submitted to: https://www.asmeconferences.org/IDETC2011

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## Technical Co-Sponsors:

ASME Division of Design Engineering
IEEE Intelligent Transportation Systems Society
IEEE Control Systems Society

## Important Dates:

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| Submission of Abstract | 11-02-2011 |
| Submission of Full-Length Paper | 18-02-2011 |
| Author Notification of Acceptance | 20-05-2011 |
| Submission of Copyright Form | 27-05-2011 |
| Submission of Final Paper | 30-05-2011 |