



CALL FOR PAPERS

INTERNATIONAL MICRO AIR VEHICLE
CONFERENCE
AND FLIGHT COMPETITION

RWTHAACHEN
UNIVERSITY

IMAV 2015

AACHEN, GERMANY

15 - 18 SEPTEMBER 2015

Micro Air Vehicles (MAV) are the smallest man-made flying machines. They are flying autonomously to the greatest possible extent and have the weight and size of small birds. Innovation in navigation, control and processing technology has made this possible.

There are still numerous scientific challenges to be solved in order to fly Micro Air Vehicles under all flight and weather conditions. The development of miniaturized structures, propulsion and navigation systems, aerodynamics, flight controllers, actuators and sensors are just a few of the current research topics in the field of MAV.

The conference shall serve as a platform to exchange information on the state-of-the-art of MAV. Thus, the German Institute of Navigation and the RWTH Aachen University cordially invite everyone from Science, Industry, Military, Government Agencies and Users to participate in this conference.

Suggested Main Topics

- Low-Reynolds and MAV aerodynamics
- Enhanced autonomy and artificial intelligence applied to MAVs
- Sense and Avoid
- MAV swarms, formation flight
- Flapping wings, morphing and bio-inspired MAVs
- Vision-based sensing
- Control theory and state estimation
- Autonomous navigation without GPS
- Design methodologies and optimization
- System architecture for MAV operation
- MAV applications and flight testing

The suggested topics are not limited to the above mentioned areas. Additional topics may refer to

- Guidance, Navigation and Control
- Sensors
- Fuselage and Propulsion Systems
- MAV Operation
- System Engineering

Authors may choose to submit two different kinds of papers:

Scientific Papers

Submitted articles will be subjected to a single-blind review process of the entire article. Key figures and references to pertinent publications in the existing literature are required. The maximum length of an article is 8 pages. The scientific presentations will be 25 minutes long including questions.

Technical Papers

Technical papers may be submitted as an extended abstract (with a minimum of 2 pages) highlighting new or significant aspects of the authors' work in one of the MAV's technical field. Submitted abstracts will be subjected to a single-blind review process. The technical presentations will be 15 minutes long + 5 minutes for discussions and questions.

Submitting the Papers

The usage of the attached LaTeX template for your paper is not mandatory, but you may use it as suggested structure with other word processing programmes. Please, submit your Full Paper as pdf file.

Best Paper Award

The International Journal of Micro Air Vehicles offers the opportunity to participate in an expedited review process for the authors of the articles nominated for the Best Paper Award to be published in the journal.

Proceedings

The proceedings of the conference are free (free access) for anybody.

Suspense Dates

Submission of Scientific and Technical Papers:	03 June 2015
Notification of acceptance:	24 June 2015
Team Registration	01 July 2015

Besides the theoretical part - as before - IMAV 2015 includes an indoor and outdoor flight competition of MAV.

Further information about IMAV 2015 as well as rules and regulations of the flight competition can be found on our Website:

www.dgon-imav.org