

Monday afternoon / 17 September 2007

**Session 1 MAV Design, Aerodynamics & Propulsion**

Chaired by : C. BOLLER, *University of Sheffield*, Leeds, UK

1430	1455	1520
<p><b>MAV07-PLE1A</b></p> <p><b>Aerodynamics of VTOL Micro Air Vehicles</b> S. Shkarayev, <i>University of Arizona</i>, Tucson, AZ ; J.-M. Moschetta and B. Bataillé, <i>SUPAERO</i>, Toulouse, France</p>	<p><b>MAV07-PLE1B</b></p> <p><b>Plasma Flow Control at MAV Reynolds Numbers</b> B. Göksel, <i>Electrofluidsystems Ltd. Holding</i>, Berlin, Germany; D. Greenblatt, R. Bannasch, I. Rechenberg. O. Paschereit, <i>TU Berlin</i>, Berlin, Germany</p>	<p><b>MAV07-PLE1C</b></p> <p><b>Presentation of the MAVDEM project</b> A. Joulia and C. Le Tallec, <i>ONERA</i>, Chatillon, France</p>

Monday afternoon / 17 September 2007

**Session 2 MAV Navigation and Mission Planning**

Chaired by : P. VÖRSMANN, *Technische Universität Braunschweig*, Germany

1615	1640	1705
<p><b>MAV07-PLE2A</b></p> <p><b>Path Planning for a Fixed Wing Micro Air Vehicle in Fuzzy Quadtree Framework</b> S. Ghosh, A. Halder and M. Sinha, <i>Indian Institute of Technology (IIT)</i>, Kharagpur, India</p>	<p><b>MAV07-PLE2B</b></p> <p><b>Flight Control for Micro Aerial Vehicles Using Artificial Intelligence</b> T. Krüger, <i>Technische Universität Braunschweig</i>, Germany ; L. Krüger, <i>Mavionics</i>, Braunschweig, Germany ; A. Kuhn, <i>Andata Development Technologies</i>, Hallein, Austria ; J. Axmann and P. Vörsmann, <i>Technische Universität Braunschweig</i>, Germany</p>	<p><b>MAV07-PLE2C</b></p> <p><b>Soaring behaviors in UAVs : 'animat' design methodology and current results</b> S. Doncieux, G. Tatur, J.-B. Mouret and J.-A. Meyer, <i>Institut des Systèmes Intelligents et Robotique, LIP6</i>, Paris, France</p>

Tuesday afternoon / 18 September 2007

**Session 3 Flapping-wing MAVs, fluid-structure interaction**

Chaired by : W. SHYY, *University of Michigan*, Ann Arbor, MI

1315	1340	1405
<p><b>MAV07-PLE3A</b></p> <p><b>Experimental Elastic Deformation Characterization of a Flapping-Wing MAV using Visual Image Correlation</b> K. Stewart, R. Albertani, <i>University of Florida</i>, Shalimar, FL</p>	<p><b>MAV07-PLE3B</b></p> <p><b>The Use of Resonant Structures for Miniaturizing FMAVs</b> C. Bolsman, <i>Delft University of Technology</i>, The Netherlands ; B. Palsson, <i>Chalmers University of Technology</i>, Sweden ; H. Goosen, R. Munnig Schmidt and F. van Keulen, <i>Delft University of Technology</i>, The Netherlands</p>	<p><b>MAV07-PLE3C</b></p> <p><b>Unsteady Mechanical Aspects of Flexible Wings: an Experimental Investigation Applied to Biologically Inspired MAVs.</b> R. Albertani, REEF, <i>University of Florida</i>, FL ; B. Stanford and P. Ifju, <i>University of Florida</i>, Gainesville, FL</p>

Thursday morning / 20 September 2007

**Session 4 Sense and Avoid, Autopilots for MAV Systems**

Chaired by : T. HAMEL, *I3S, UNSA-CNRS*, Nice, France

0900	0925	0950
<p><b>MAV07-PLE4A</b></p> <p><b>Flight Controller Design and Autonomous Flight Tests of 60cm-sized UAV</b> J. Fujinaga, H. Tokutake and S. Sunada, <i>Osaka Prefecture University</i>, Japan</p>	<p><b>MAV07-PLE4B</b></p> <p><b>Strategies for the Implementation of a Sense and Avoid System for Unmanned Aerial Vehicles</b> J. B. Park and P. Vörsmann, <i>Technische Universität Braunschweig</i>, Germany</p>	<p><b>MAV07-PLE4C</b></p> <p><b>Design concepts for a novel attitude sensor for Micro Aerial Vehicles based on dragonfly ocellar vision</b> G. Stange, R. Berry and J. van Kleef, <i>Australian National University</i>, Canberra, Australia</p>

Thursday morning / 20 September 2007

**Session 5 Flapping-MAVs, Flight Control and Navigation**

Chaired by : J. A. MULDER, *Delft University of Technology*, The Netherlands

1115	1140	1205
<p><b>MAV07-PLE5A</b></p> <p><b>A Dynamic Model and System Identification Procedure for the Autonomous Ornithopter</b> B. Malladi, R. Krashanitsa, D. Silin and S. Shkarayev, <i>University of Arizona</i>, Tucson, AZ</p>	<p><b>MAV07-PLE5B</b></p> <p><b>Flapping-wing flight in bird-sized UAVs for the ROBUR project: from an evolutionary optimization to a real flapping-wing mechanism</b> E. de Margerie, J.-B. Mouret, <i>Institut des Systèmes Intelligents et Robotique, LIP6</i>, Paris, France ; T. Ravasi, P. Martinelli and C. Grand, <i>Institut Universitaire de Technologie de Cachan</i>, France</p>	<p><b>MAV07-PLE5C</b></p> <p><b>Experimental investigation on the aft-element flapping of a two-element airfoil at high attack angle</b> T. Guang-kun, S. Gong-Xin and S. Wen-han, <i>Beijing University of Aeronautics and Astronautics (BUAA)</i>, Beijing, China</p>

Friday morning / 21 September 2007

**Session 6 Rotary-wing MAV Systems**

Chaired by : P. DOHERTY, *Linköping University*, Sweden

1030	1055	1120
<p><b>MAV07-PLE6A</b></p> <p><b>Rotorcraft Using Minimal Sensing For Fully Autonomous Control</b> J. Roberts, T. Stirling, J.-C. Zufferey and D. Floreano, <i>Laboratory of Intelligent Systems, Ecole Polytechnique de Lausanne (EPFL)</i>, Lausanne, Switzerland</p>	<p><b>MAV07-PLE6B</b></p> <p><b>Modeling and development of a quadrotor UAV</b> G. Pradel, K. Benzemrane, G. Damm, N. Azouz, <i>Informatique, Biologie Intégrative et Systèmes Complexes (IBISC)</i>, <i>Université d'Evry</i>, Evry, France</p>	<p><b>MAV07-PLE6C</b></p> <p><b>Nonlinear Attitude and Position Control of a Micro Quadrotor using Sliding Mode and Backstepping Techniques</b> P. Adigbli, <i>Institute of Automatic Control Engineering, Technische Universität München</i>, Germany ; J.-B. Mouret, S. Doncieux, J.-A. Arcady, <i>Institut des Systèmes Intelligents et Robotique, LIP6</i>, Paris</p>