

International Symposium Series on Mechanical Systems Innovation
 Takeda Conference Hall, The University of Tokyo
**International Symposium on
 Innovative Aerial/Space Flyer Systems**

December 10, 2004

9:00-9:20 Opening Addresses

*Kimihiko Hirao (Dean, School of Engineering,
 The University of Tokyo, Japan)*
*Toshio Nagashima (The University of Tokyo, Japan
 President, The Japan Society for Aeronautical
 and Space Sciences)*

**Plenary Oral Session 1: Micro Aerial Vehicle / Unmanned
 Air Vehicle (Design 1)**

9:20-10:05 Recent Advances in IARP (Innovative Aerial
 Robot Project) at the University of Tokyo
 Part 1: Airplane *Shinji Suzuki (The University of Tokyo, Japan)*
 Part 2: Rotorcraft *Kazuro Kageyama and Hideaki Murayama
 (The University of Tokyo, Japan)*
 10:05-10:40 The autonomous MAV "Carolo"
Marco Buschmann (Mavionics GmbH, Germany)

10:40-11:00 Coffee break

11:00-11:35 Aerodynamics of Insect Flight
Keiji Kawachi (The University of Tokyo, Japan)
 11:35-12:00 Demonstration Flight of World's Smallest Autonomous
 Vehicle Developed by Seiko Epson Co.
 -Theoretical Support from the University of Tokyo-
Osamu Miyazawa (Seiko Epson Co., Japan)

12:00-13:20 Lunch break

Plenary Oral Session 2: Micro Aerial Vehicle / Unmanned Air Vehicle (Design 2)

13:20-13:55 Design and Development Test of a New VTOL, Cyclocopter
Sang Joon Shin (Seoul National University, Korea)
 13:55-14:30 A Deviation of Guidance Laws for UAVs Formation Flight
Joseph Z. Ben-Asher (echnion, Israel)
 14:30-15:05 Autonomous Control of Coordinated MAVs for Urban
 Search and Rescue
Tomonari Furukawa (The University of New South Wales, Australia)

15:05-15:20 Coffee break

15:20-15:55 Computational and Experimental Investigations
 of Low-Reynolds Number Flows Characteristics around MAV
Chongam Kim (Seoul National University, Korea)
 15:55-16:30 Paving the Way for Miniature Aerial Vehicles (MAV)
Roland Decuyper (Royal Military Academy, Belgium)

**Plenary Oral Session 3: Micro Aerial Vehicle /
 Unmanned Air Vehicle (Propulsion 1)**

16:30-17:05 New Engine and Thermodynamic Cycle of
 Tusas Aerospace Industries Unmanned Air Vehicle
*Ibrahim Sinan Akmandor
 (Middle East Technical University, Turkey)*
 17:05-17:40 Research and Development of Micro-
 Engines for Flight Micro-Vehicles (Russian Way)
*Leonid Yanovskiy (Central Institute
 of Aviation Motors (CIAM), Russia)*

**18:00-20:00 Reception at
 Forest Hongo Hotel**

December 11, 2004

**Plenary Oral Session 4: Micro Aerial
 Vehicle / Unmanned Air Vehicle (Propulsion 2)**

9:00-9:35 Micro Air-breathing Laser Spike
 Engine Propulsion
*In-Seuck Jeung
 (Seoul National University, Korea)*
 9:35-10:10 Heat Balance in Micro Gasturbines
*Rene. A. Van den Braembussche
 (von Karman Institute for Fluid Dynamics, Belgium)*

10:10-10:30 Coffee break

General Oral Session: Related Fundamental Research

10:40-11:00 Aircraft Design Education at University of Tokyo-
 UAV/MAV Student Design Projects
Kenichi Rinoie (The University of Tokyo, Japan)
 11:00-11:20 Composite Way of Contributing towards MAVs with
 Composites
Takahira Aoki (The University of Tokyo, Japan)
 11:20-11:40 Nano/Pico Satellite Research and Future Vision at
 University of Tokyo
Shin-ichi Nakasuka (The University of Tokyo, Japan)
 11:40-12:00 Multidisciplinary Design Optimization for Innovative Aircraft
Takeshi Tsuchiya (The University of Tokyo, Japan)
 12:00-12:20 Wireless Energy Transmission for Aerospace Propulsion
Kimura Komurasaki (The University of Tokyo, Japan)
 12:20-12:40 Cluster Fan VTOL
Shiki Iwase (Japan Space Exploration Agency (JAXA), Japan)

12:40-14:00 Lunch break

**Short Oral and Poster Presentation:
 IARP (Innovative Aerial Robot Project) at UT**

*Presentation by young faculty members and
 the graduate students*
 14:00-15:00 Short Oral Presentation
 (Three minutes per person)
 15:00-16:00 Poster Session
 (Coffee and Refreshment)

16:00-16:10 Closing
*Nobuo Takeda (The University
 of Tokyo, Japan)*

「飛
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 める。」

革新的飛行システムの実現へ向けて



主催：東京大学21世紀COEプログラム「機械システム・イノベーション」

The 21st Century COE Program: Mechanical Systems Innovation, The University of Tokyo

URL: <http://www.mechasys.jp/> E-mail: office-coe@thtlab.t.u-tokyo.ac.jp Tel.: +81-3-5841-7437