

# 2011 KAIST, TIT, Tohoku University and HIT Joint Workshop on Multidisciplinary Design Problems

October 5-6, 2011

Korea Advanced Institute of Science and Technology  
Daejeon, Korea



Technical session

Place: #4301, Mechanical Building, KAIST

Organized by

Prof. In Lee, Korea Advanced Institute of Science and Technology, Korea

Prof. Shigeru Obayashi, Tohoku University, Japan

Prof. Akira Todoroki, Tokyo Institute of Technology, Japan

Prof. Yoshiki Ota, Hokkaido Institute of Technology, Japan

# Workshop Schedule

October 5, 2011	
18:00 ~21:00	Welcome Reception

October 6, 2011	
#4301, Mechanical Building, KAIST	
Time	Sessions
09:20-09:50	Registration
09:50-10:00	Opening Remark
Session A (10:00 – 11:40)	
10:00-10:30	<b>Keynote Lecture1</b> <i>Chair: Prof. In Lee (KAIST)</i> Efficient Global Optimization of Laminated Composite Structures using Multi-Objective GA <b>Prof. Akira Todoroki</b> (Tokyo Institute of Technology)
10:30-10:40	Coffee break
10:40-11:00	<i>Chair: Hyun-Jin Shin (TIT)</i> Composite Damage Model based on Continuum Damage Mechanics and Low-Velocity Impact Analysis of Composite Structures <b>Eun-Ho Kim</b> (KAIST)
11:00-11:20	Wake Turbulence Simulation Integrated with Weather Prediction Data Using Two-way Nesting Method <b>Hiroki Nakanomyo</b> (Tohoku University)
11:20-11:40	Surrogate Model of Thermal Deformation of Stiffened Laminated Composite for Stacking Sequence Optimizations <b>Takumi Ozawa</b> (Tokyo Institute of Technology)
11:40-13:30	Lunch
Session B (13:30 – 15:10)	
13:30-14:00	<b>Keynote Lecture2</b> <i>Chair: Prof. In Lee (KAIST)</i> Applications of Multi-Objective Design Exploration (MODE) to a Regional Jet Design <b>Prof. Shigeru Obayashi</b> (Tohoku University)
14:00-14:10	Coffee break
14:10-14:30	<i>Chair: Eun-Ho Kim (KAIST)</i> Aeroelastic Analysis for a Wraparound Fin Projectile Undergoing Rolling Motion <b>Jung-Young Kim</b> (KAIST)
14:30-14:50	Searching for the Robust Solution of Topology Optimization by using the Self-Organizing Map <b>Hyun-Jin Shin</b> (Tokyo Institute of Technology)
14:50-15:10	Ionic polymer-metal composite polymer actuator with well-defined silver electrodes through an in-situ self-metallization <b>Jin-Han Jeon</b> (KAIST)
15:10-15:30	Coffee break
Session C (15:30 – 16:50)	
15:30-16:00	<b>Keynote Lecture3</b> <i>Chair: Prof. In Lee (KAIST)</i> On the Approximate Bending Stiffness for Structural Optimization of Double-skin Hollowed Rectangular Plates <b>Prof. Yoshiki Ohta</b> (Hokkaido Institute of Technology)
16:00-16:10	Coffee break
16:10-16:30	<i>Chair: Hiroki Nakanomyo (Tohoku University)</i>

	Visualization of Pressure Wave Form Biplane using BOS Method <b>Takuya Yoneyama</b> ( <i>Tohoku University</i> )
16:30-16:50	A cost-effective approach for the mapping of near earth objectes (NEO): Optical stellar interferometry using COTS systems by a nano-satellite constellation <b>Shanti Swaroop Kandala</b> ( <i>KAIST</i> )
16:50-17:00	Closing Remark
17:00-17:20	Photo Time
18:00-21:00	Banquet