

2012 International Conference on Advanced Mechatronic Systems (ICAMechS 2012)

Special Session on
Vibration Control

Special Session Organizer:

Shinji Wakui*

*Tokyo University of Agriculture and Technology, Japan

Session Theme and Objective:

Recently, there have been increasing demands on vibration isolation/suppression in practical applications e.g., precision measurement instruments, lithography machines, buildings, vehicles, and so on. Since from the control engineering perspective, various advanced methodologies have been reported, it is needed to fill the gap between theory and practice. Thus, the purpose of this session is to discuss the current issues and show the results on the vibration control. Topics covered by this session include but are not limited to:

(Semi-)Active Control

Isolated Structures

Modal Analysis

Actuators

System Identification

Modelling

Flexible Structures

Noise control

Pneumatic Systems

Sensors

Parameter Estimation

Experimental/Simulation Evaluation

This special session includes the following papers:

Paper #1

Paper title: Root Locus Analysis of Absolute Displacement Sensors and Bandwidth Expansion with Hybrid Detector System

Authors: Takashi Kai*, Yukinori Nakamura*, and Shinji Wakui*

Affiliation: *Tokyo University of Agriculture and Technology, Japan

Paper #2

Paper title: Control of a Pneumatic Isolation Table by Flow Meter: Improvement of Repeatability in Various Switching Points of the Feedforward Compensator

Authors: Habiburahman Shirani*, Yukinori Nakamura*, and Shinji Wakui*

Affiliation: *Tokyo University of Agriculture and Technology, Japan

Paper #3

Paper title: Development and Evaluation of a Simulator for Pneumatic Anti-Vibration Apparatuses with Six Degrees-of-Freedom Using Mode Control

Authors: Yuka Kaneko*, Yukinori Nakamura*, Shinji Wakui*, Byung Sub Kim**, and Chang Kyu Song**

Affiliation: *Tokyo University of Agriculture and Technology, Japan

**Korean Institute of Machinery and Materials, Korea