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Optomechatronic Actuators and Manipulation III

Yves Bellouard
Yukitoshi Otani
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Editors

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International Symposium on Optomechatronic Technologies ISOT 2007

In recent years, most engineered products, processes, and systems have been evolving towards higher functionality, flexibility, intelligence, and miniaturization. This trend is stimulated by the ongoing fusion between optical and mechatronic technologies leading not only to enhanced performance but also to the creation of new, innovative functionalities. Because of its synergistic effect, the integration of these engineering fields, labeled optomechatronic technology, is becoming a major driving force to future enabling technologies.

The objective of this symposium is to gather researchers and engineers working in the field of optomechatronics and to provide them with a forum for discussion for exchanging their points of view and experience and sharing their research results through high quality peer reviewed papers.

The symposium consists of five conferences:

- 1) **Optomechatronic Actuators and Manipulation**
- 2) **Optomechatronic Sensors and Instrumentation**
- 3) **Optomechatronic Micro / Nano Devices and Components**
- 4) **Optomechatronic Computer-Vision Systems**
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Introduction

There has been a rapid growth in actuation and manipulation research in the past few years dedicated to optomechatronic applications. Many novel materials, architectures, and applications have been proposed, built, and studied. The goal of this conference is to keep a record of the state-of-the-art research in this fast moving area. This conference is designed to fulfill the need for closer collaboration between researchers, academics, manufacturers, and end users by bringing them together in a single forum to interact, exchange technical knowledge, and discuss their experiences.

This year, three oral sessions are organized around the following topics:

- Actuators for optical beam steering, focusing, and shaping
- Optical based micro-manipulation, related detection means, and tracking systems
- Optical-based actuation and microassembly of optical components.

In addition, a special dedicated poster session presents recent developments in the field of optomechatronic actuators and manipulation. This session plays an important role in the conference as it will give a unique opportunity to authors and participants to exchange ideas in an informal and convivial atmosphere.

Yves Bellouard
Yukitoshi Otani
Kee S. Moon

