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Front Matter: Volume 6715

, "Front Matter: Volume 6715," Proc. SPIE 6715, Optomechatronic Actuators and Manipulation III, 671501 (10 October 2007); doi: 10.1117/12.778065

SPIE.

Event: International Symposium on Optomechatronic Technologies, 2007, Lausanne, Switzerland

PROCEEDINGS OF SPIE

Optomechatronic Actuators and Manipulation III

Yves Bellouard
Yukitoshi Otani
Kee S. Moon
Editors

8–10 October 2007
Lausanne, Switzerland

Organized by
Ecole Polytechnique Fédérale de Lausanne (Switzerland)

Sponsored by
LIST—Laboratoire d'Intégration des Systèmes et des Technologies, CEA (France)
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Published by
SPIE

Volume 6715

Proceedings of SPIE, 0277-786X, v. 6715

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Author(s), "Title of Paper," in *Optomechatronic Actuators and Manipulation III*, edited by Yves Bellouard, Yukitoshi Otani, Kee S. Moon, Proceedings of SPIE Vol. 6715 (SPIE, Bellingham, WA, 2007) Article CID Number.

ISSN 0277-786X
ISBN 9780819468635

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA
Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445
SPIE.org

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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

