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Lixin Dong
Yoshitada Katagiri
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Yves-Alain Peter
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

At this very young stage of the 21st century, the emergence of a novel stream is expected to be seen in micro-nanoscale technologies dealing with small objects, including atoms and molecules to establish a sophisticated, information-oriented society with some epoch-making innovations, which may include novel computers equivalent to human brains. Although the expectation is supported by many technological sprouts in a wide variety of fields including telecommunications, information processing, and sensing, we are still faced with some critical issues that include how the diffraction limit is overcome, or how optical signals are stored against the theory of relativity. In the continuing mission of improving science and technologies for the society of the future, it is due time to move on to discussing ways of overcoming such issues. Researchers and engineers will have an opportunity to exchange their opinions in this interdisciplinary conference.

There were 38 submissions to this conference, among them 34 have been accepted according to peer reviews. The acceptance rate was about 89.5%. The conference consists of two poster sessions (13 papers) and four oral sessions (21 papers) including two invited sessions:

- P1 (6 papers): Micro/Nano Devices and Components (Chair: Albert Sill)
- P6 (6 papers): Invited Session 1: Composite Doped Metamaterials (Chair: Mario Agio)
- P7 (4 papers): Invited Session 2: Inkjet (Chair: Heuseok Kang)
- P8 (5 papers): Manipulation and Assembly of Micro/Nano Devices and Components (Chair: Yves-Alain Peter)

Lixin Dong