

Call for Papers and Invited Session Proposals
for the Conference on
Optomechatronic Systems Control V

**SPIE International Symposium on Optomechatronic Technologies
(ISOT 2008)**

17-19 November 2008 San Diego, U.S.A.

Symposium Chair : Kee S. Moon (USA)

Symposium Co-chairs: Hyungsuck Cho (Korea) Shun'ichi Kaneko (Japan) Farrrokh Janabi-Sharifi (Canada) Takayuki Tanaka (Japan) Samuel K. Kassegne (USA)

Conference Chair: Okyay Kaynak, UNESCO Chair on Mechatronics, Bogazici University (Turkey)

Conference Co-chairs: Young Jun Cho, KITECH (Korea); Toshio Fukuda, Nagoya University (Japan); Jingang Yi, San Diego State University (USA)

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Optomechatronic control systems deal with the control of integrated optical and mechatronic systems to achieve high performance and functionality, such as high precision, rapid information processing, and intelligent functions. These control systems offer significant potential advantages over the conventional control systems in terms of power, signal attenuation, bandwidth, and low of information, electromagnetic interference immunity, and safety. However, control of optomechatronic systems involves serious challenges due to inherent system non-linearities, uncertainties, time-varying properties, and disturbances. Addressing such control problems is vital for future advancement and the advent of new applications of optomechatronic technology. In order to strengthen the science and engineering of optomechatronic control systems, it is essential that researchers and engineers communicate and coordinate their work. The purpose of this conference is to promote research activities in various areas of design and implementation of optomechatronic control systems by providing a forum for the exchange of ideas, presentation of technological achievements, and discussion of future directions.

Topics of interest include, but are not limited to:

- sensor design methodology
- actuators for micro-optics
- smart materials for optomechatronic applications
- optical sensor and actuator integration
- micro-mirrors and micro-mirrors array
- micro/nano-manipulators for microoptics
- actuators for scanning probe and near-field microscopy
- integrated optics for motion / force sensing

- waveguide technology applied to micro-mechatronics
- optics-based micro-manipulation
- optical switches/ relays
- laser trapping techniques for micromanipulation
- optomechatronic for light modulation and beam shaping
- actuation for optical/medical devices
- actuation for disk storage devices
- design of adaptive optics
- applications to interferometry and spectrometry (FT-IR)
- innovative optical scanner design
- assembly and manipulation of micro-optical components
- industrial and commercial developments of optomechatronic applications and systems
- optomechatronic applications for harsh environment
- applications to Lab-on-a-Chip

Invited Sessions:

Invited sessions are aimed at providing focused discussion on new and timely research topics, and innovative issues on optomechatronics. Each invited session will consist of at least four papers, which will be reviewed through the regular reviewing process. Those interested in organizing an invited session should contact the symposium chair, Dr. Kee S. Moon, kmooon@mail.sdsu.edu, by 1 September 2008, and submit a proposal including the list of contributed papers and a session title.

Full paper (6 pages) due: September 1, 2008

Final paper due: October 1, 2008

Submission of Papers for International Symposium on Optomechatronic Technologies

Manuscript Due Date: 1 September 2008
Final Manuscript Due Date: 1 October 2008

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1. By submitting a full paper, I agree to the following conditions:

- § An author or coauthor (including keynote, invited, and solicited speakers) will register at the reduced author registration rate, attend the meeting, and make the presentation as scheduled. (Current SPIE Members receive an additional discount on the registration fee.)
- § Authors and coauthors attending the meeting must obtain funding for their registration fees, travel, and accommodations, independent of SPIE, through their sponsoring organizations before submitting abstracts.
- § All clearances, including government and company clearance, have been obtained to present and publish. If you are a DoD contractor, allow at least 60 days for clearance.
- § SPIE is authorized to circulate your abstract and full paper to conference committee members for review and selection purposes.
- § Please also submit a 100-word abstract suitable for early release. If accepted, this abstract text may be published prior to the meeting in online or printed programs promoting the conference.
- § A full-length final manuscript (minimum 6 pages) for any accepted oral or poster presentation (including keynote, invited, and solicited presentations) will be submitted for publication in the SPIE Digital Library and conference Proceedings CD-ROM.

2. Prepare to submit:

- § Have all contact information (full names, affiliations, addresses, phone numbers, and emails) for your coauthors ready.
- § Only original material should be submitted.
- § Papers should contain enough detail to clearly convey the approach and the results of the research.
- § Commercial papers, papers with no new research/development content, and papers where supporting data or a technical description cannot be given for proprietary reasons should not be submitted, and will not be accepted for presentation in this conference.
- § Read and follow the manuscript submission guidelines at <http://spie.org/manuscripts>

NOTE: The standard SPIE Manuscript Guidelines state that manuscripts should be 8-12 pages, but 6-12 pages will be allowed for ISOT 2008.

3. Submit your full paper online:

View the call for papers at <http://spie.org/isot>

Click on the conference title to submit your full paper. You will be prompted to sign in to the MySPIE system. If you have a MySPIE account, sign in using your username and password. First-time users of MySPIE can create a new account by clicking on the "create new account link".

Review, Notification, and Program Placement

- § To ensure a high-quality conference, all papers will be reviewed by the Conference Chair/Editors for technical merit and suitability of content. Conference Chair/Editors reserve the right to reject for presentation or publication any paper that does not meet content or presentation expectations.
- § Conference Chair/Editors are expected to assess manuscripts for technical merit, suitability of content, and clarity. The process for assessing manuscripts for publication in SPIE proceedings is managed differently by chairs/editors of different conferences. Conference Chair/Editors may require one or more manuscript revisions before approving publication, and reserve the right to reject for publication any paper that does not meet content or quality expectations or manuscript requirements. SPIE's decision on whether to publish a manuscript is final.
- § Applicants will be notified of acceptance and sent final manuscript and summary instructions by email no later than 22 September 2008.
- § Final placement in an oral or poster session is subject to the Chairs' discretion. Instructions for oral and poster presentations can be found on the Information for Authors and Presenters link on the SPIE ISOT Event Home Page

Final Manuscript and Summary

- § For accepted papers (oral and poster presentations), authors will be required to submit a final manuscript and final summary by 1 October 2008.
- § The same manuscript guidelines apply to both the draft and final manuscript <http://spie.org/manuscripts>
- § The format for the final summary is a one-page PowerPoint file describing the contribution of your paper. Further instructions will be provided.
- § Final summaries will be published with the printed Final Program for distribution at the meeting.

Proceedings of SPIE and SPIE Digital Library

- § Full-manuscripts will be Chair/Editor-approved and published in the *Proceedings of SPIE* and in SPIE Digital Library.
- § Manuscript instructions will be emailed to the person marked as contact author for the paper and are also available from the "Information for Authors" link on the conference website.
- § Authors must be authorized to transfer copyright of the manuscript to SPIE, or provide a suitable publication license. Authors reserve the right to expand and revise the manuscript for future publication.
- § Only papers presented at the conference will be published in the conference Proceedings and SPIE Digital Library.
- § Published papers are indexed in leading scientific databases including INSPEC, Ei Compendex, Chemical Abstracts, International Aerospace Abstracts, ISI Index to Scientific and Technical Proceedings and NASA Astrophysical Data System, and are searchable in the SPIE Digital Library. Full manuscripts are available to all SPIE Digital Library subscribers.