

FINAL CALL FOR PAPERS



IN COOPERATION WITH

The Institute of
Electrical and
Electronics Engineers,
Photonics Society
(IEEE, PS)

Optical Society of
America (OSA)

SPIE

The Institute of
Electronics,
Information and
Communication
Engineers (IEICE)

The Chemical Society
of Japan

Information
Processing Society of
Japan

The Institute of
Electrical Engineers of
Japan

The Institute of Image
Electronics Engineers
of Japan

The Institute of Image
Information and
Television Engineers

The Japan Society of
Precision Engineering

The Laser Society of
Japan

International Symposium on Optical Memory 2010

*Parkview Hotel
Hualien, Taiwan
October 24-28, 2010*

SPONSORED BY

- The Japan Society of Applied Physics (JSAP)
- The Magnetics Society of Japan (MSJ)
- Optoelectronic Industry and Technology Development Association (OITDA)
- Taiwan Information Storage Association (TISA)
- Industrial Technology Research Institute (ITRI)
- National Dong Hwa University (NDHU)
- IEEE Taipei Section Instrumentation & Measurement Society
- Taiwan Photonics Society

**Paper Deadline
May 28, 2010**

<http://www.isom.jp/>

INTRODUCTION

The 20th International Symposium on Optical Memory (ISOM) will be held from Oct. 24th to 28th 2010 at Parkview Hotel in Hualien, Taiwan. The purpose of the symposium is to provide a forum for information exchange on a broad range of topics covering science and technology in optical memories. In 2006, ISOM Optical Memory Roadmap final report highlighted the milestones and breakthroughs in next generation optical data storage research namely holographic recording, multi-layer recording, two-photon, Super-RENS and near-field technologies. The interface specifications between future technologies and elemental technologies were also discussed. In 2009, the second version of ISOM Optical Memory Roadmap focusing on applications, such as archival systems, audio-video systems, inter-cross business market was disclosed. In 2010, it will be very expected to discuss new optical data systems and application systems as well as high density technologies or future technologies.

The symposium site, Parkview Hotel is located in Hualien, the most beautiful county in Taiwan. Hualien County is approximately 4628 sq. km wide and has a population of about 350,000. Four hundred years ago, the Portuguese sailors went past the East Coast of Taiwan, were fascinated by its beauty, and called it "FORMOSA." It was called "chi-lai" in the ancient period. Owing to the fact that the Hualien River empties into the Pacific Ocean on the East Coast, where the surge and the waves are turbulent, it is also called "huei-lan," similar sound with Hualien.

Hualien County, facing the immense Pacific Ocean in the east and leaning against the grand Central Mountain Range in the west, is famous for its beautiful scenery: the natural resources in Taroko National Park, East Coast National Scenic Area, East Rift Valley Scenic Area and Yushan National Park.

SCOPE OF THE SYMPOSIUM

ISOM'10 will discuss the current status of optical memory system design and applications, together with new developments in the areas of media, lasers, basic theory including computer simulation, system sub-components, and a range of future technologies. From ISOM'09, the scope of the symposium was extended to accept a wide range of researches and technologies. In addition to ordinary contributed papers, a number of invited papers in cutting edge will be presented. Topics to be covered in this symposium include, but are not restricted to:

1. Basic Theory and Physical Optics

- Structure Analysis
- Photochemical Reaction
- Multi-Photon Process
- Electromagnetic Optics
- Nonlinear Optics
- Near-Field Optics
- Quantum Optics
- Spectroscopy
- Simulation

2. Media and Material Science

- Rewritable, Write-Once, Read-Only Media
- Characterization, Recording and Readout Mechanisms
- Manufacturing Technology
- Substrates, Mastering
- Super Resolution Media
- Photochromic and Photorefractive Materials, Other Materials
- Photonic Crystals
- Plasmonics, Metamaterials, Nanomaterials

3. Drive Technologies and Signal Processing

- Drive Integration
- Mechanics and Electronics Design
- Servo and Accessing Methods
- Read Write Channels, Error Correction
- Modulation Code
- Copy Protection
- Image Processing

4. Components and Nano Fabrication

- Optical Heads, Actuators
- Lenses, Diffractive Optics
- Active or Adaptive Optics
- Light Sources, Detectors
- Integrated Optical Heads and Components
- Modulators, Image Sensors
- MEMS/NEMS Fabrication and Devices
- Nano Imprint

5. Testing Methods and Devices

- Testing and Evaluation Methods for Drives, Media and Components
- Drive Testers, Media Testers

6. Systems and Applications

- Optical Storage Systems
- Archival Applications
- Security Applications

- Mobile Applications
- Medical and Bio Applications
- New Applications

7. High Density Recording

- Holography
- Volumetric Storage, Multi Layer Recording
- Scanning Probe and Near-Field Recording
- Multiwavelength Recording and Bistable Devices
- Multi Level Recording
- Hybrid Recording
- Other Future Technologies

8. New World - Other Future Science and Technology Available to Information Storage

ONLINE SUBMISSION

A limited number of original papers are accepted for presentation. The paper has to be submitted as an Adobe PDF-file at the ISOM website (<http://www.isom.jp/>). ISOM web submission service does not accept PDF files including 2-byte characters (for example, Japanese, Chinese and Korean characters). The local fonts should be removed from the text body and figures before submission. The 2-page summary preparation, 35-word abstract instruction, and submission procedures can be obtained at the ISOM website. Prior to paper submission, a delegated author has to fill in the paper submission form including a 35-word abstract at the website, and then a 2-page PDF summary should be uploaded via the website.

Mode of Presentation

In addition to oral presentation, which typically consists of a fifteen-minute presentation and five-minute discussion, there will be a poster session during the symposium. The abstract and summary of poster papers will be published in the same fashion as oral papers.

Online Abstracts and Summaries Submission: from April 9 to May 28, 2010

Questions to the program committee should be addressed to the ISOM website (<http://www.isom.jp/>). The presentation schedule will be determined after the program committee has reviewed the papers. Authors will be notified by the middle of July 2010 whether their papers are accepted. The notification e-mail will be sent to the delegated author in the web-registration. All authors who receive notification of their paper's acceptance by the ISOM program committee are requested to complete the copyright transfer form and promptly return it to the ISOM secretariat by e-mail, fax or postal mail.

ISOM Awards and ISOM Student Award

The best paper, the best academic paper and the best technical paper are awarded the ISOM prizes. ISOM welcomes student presentations from universities. The best student paper award is also prepared.

PUBLICATION OF SYMPOSIUM PAPERS

In addition to the Technical Digest available at the symposium, symposium papers will be published as a special issue of the Japanese Journal of Applied Physics (JJAP) in 2011. The authors who will have, by themselves, presented papers at ISOM'10 will be allowed and strongly encouraged to submit their papers for publication in this special issue. Author's kits and copyright forms for the paper will be able to be downloaded via ISOM website. The deadline for submission of manuscripts will be announced on the ISOM website by about July, 2010. Submitted papers will be reviewed based on the JJAP standard.

PRELIMINARY LIST OF INVITED SPEAKERS

- Prof. Gu, M. (Swinburne Univ. of Tech.)
- Prof. Huang, D.-R. (Nat'l Dong Hwa Univ.)
- Dr. Itonaga, M. (JVC)
- Dr. Katayama, R. (NEC)
- Prof. Kawamata, J. (Yamaguchi Univ.)
- Dr. Kikukawa, T. (TDK)
- Dr. Koike, T. (Hitachi)
- Dr. Lee, C.-K. (ITRI)
- Dr. Newman, D. (Univ. of Exeter)
- Dr. Pozidis, H. (IBM Zurich)
- Dr. Tanaka, T. (RIKEN)
- Prof. Tsai, D. P. (Nat'l Taiwan Univ.)
- Dr. Yamaoka, N (Pioneer)
- Prof. Torok, P. (Imperial College)
- Dr. Wu, M.-K. (Academia Sinica)

TUTORIAL SEMINARS

- Prof. Tsai, D. P. (Nat'l Taiwan Univ.): Plasmonics
- Dr. Pozidis, H.(IBM Zurich): Probe storage system
- Dr. Ohta, T. (Ovonic Phase-Change Lab.): Phase-change memory
- Prof. Tanaka, K. (Teikyo-Heisei Univ.): Archive Applications

REGISTRATION FEES

Type	Before / On September 24, 2010	After September 24, 2010
Regular	NT\$17,000	NT\$20,000
Student & Retiree	NT\$6,000	NT\$8,000
Additional Technical Digest	NT\$1,000	NT\$1,000
Tutorial Seminar	NT\$3,000 One seminar NT\$5,000 Two seminars NT\$6,500 Three seminars NT\$7,500 Four seminars	NT\$3,000 One seminar NT\$5,000 Two seminars NT\$6,500 Three seminars NT\$7,500 Four seminars

The registration fee for the symposium includes admission to all the technical sessions and a copy of the Technical Digest. Students are asked for showing their ID cards.

Registration and Payment

Those who wish to attend ISOM'10 should register on the web (<http://www.isom.jp/>) after about August, 2010. The deadline for advanced registration is **September 24, 2010**. After that, the registration will be processed at the symposium site upon arrival. Payment should be made in New Taiwan Dollar by bank draft or by bank transfer or credit cards (JCB, VISA and Master Card) payable to ISOM'10. No personal checks will be accepted.

Refund Policy

The cancellation fee amounted NT\$1,500 will be deducted from the refund. Cancellations should be made in writing to the Secretariat. No cancellation will be admitted after October 8, 2010.

EXHIBITION

Limited exhibition space will be available during ISOM'10. Optical storage and related products, equipments, etc. are welcome to exhibit with fee. Space allocations will be on first come first served based. Please contact Ms. Sophia Liu at e-mail: tisa@itri.org.tw for details.

ADDITIONAL INFORMATION

1. Oct. 24 - Tutorial Seminars.
2. Oct. 25 - Evening, A get-together party.
3. Oct. 27 - Symposium Banquet.
4. Oct. 24~28 - Technical exhibition.
5. Oct. 27 - Technical tour and excursion.

Detailed information will be announced in the Advance Program and on the ISOM website (<http://www.isom.jp/>).

To receive further information about ISOM'10, please access to ISOM website (<http://www.isom.jp/>) or directly contact to:

ISOM'10 Secretariat

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Tzuan-Ren Jeng (Secretary General)

Sophia Liu (Secretary)

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E-mail: tisa@itri.org.tw

Add: Rm.913, Bldg.51, 195, Sec.4, Chung Hsing Rd., Chutung,
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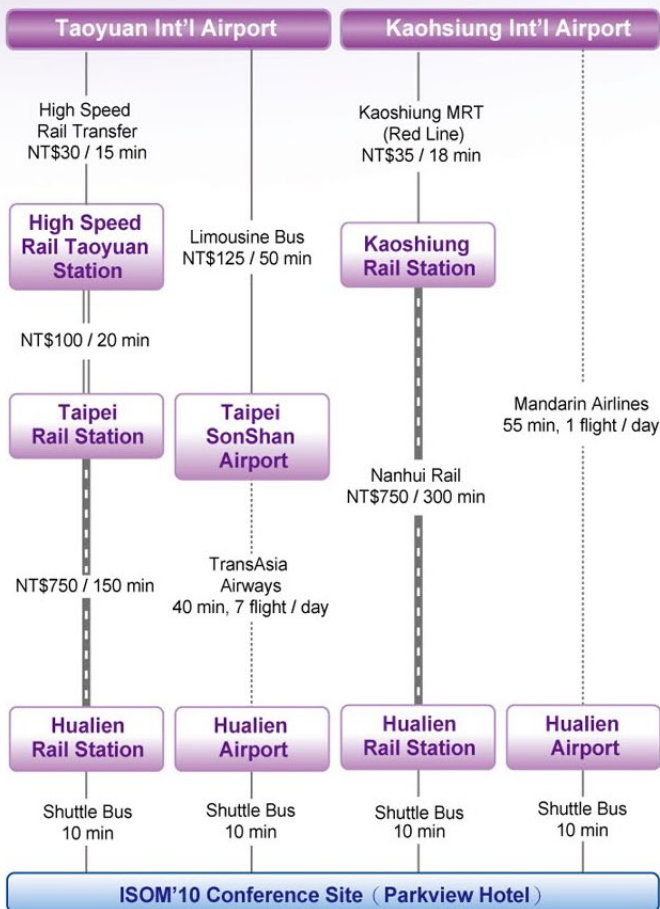
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Getting to Hualien



Conference Site



Hotel Accommodations

A block of rooms has been reserved by Taiwan Information Storage Association for the convenience of the participants.