Call for Papers

Dear Colleagues,

The 2013 IEEE Nuclear Science Symposium and Medical Imaging Conference, together with the Workshop on Room-Temperature Semiconductor X-Ray and Gamma-Ray Detectors will be held in Seoul, Korea from 27 October to 2 November. As with previous meetings, this will be a great opportunity to get together with old friends and to make new ones, to exchange ideas and share knowledge and experience in the nuclear science and medical imaging fields.

The meeting will be held at the Coex Convention Center. The conference center is located in the new part of city, with easy access to hotels, restaurants, and shopping in the large Coex center. In addition, it is within walking distance of a variety of other hotels in all categories. It is conveniently linked to the city center and other parts of Seoul by public transport.

This is the first IEEE NSS/MIC to be held in Asia after the successful 2007 NSS/MIC in Honolulu. The 2007 meeting highlighted the strong support in Asia for the research interests of NSS, MIC, and RTSD.

Once again, an international Organizing Committee is planning a meeting of high scientific level that will include both oral and poster presentations and refresher courses on important topics. A commercial exhibition that will showcase state-of-the-art products and services from a wide range of companies will be held in parallel to the scientific sessions.

The city of Seoul is a city of both old and new, combined in a unique manner that highlights both, without minimizing the value of the other. Attendees can experience the atmosphere of a historic city that is a fascinating mixture of different cultures and religions, combining history with a unique vision of the future exemplified by the modern architectural area that has become a reference model for urban expansion. Seoul offers a stimulating scientific environment together with a rich cultural heritage of music, art, gastronomy, architecture and folklore. The attendees can enjoy relaxing walks through the parks and streets of this unique city, as well as visiting the museums, temples, gardens, and a wide variety of shopping. Even if you are not interested in buying, visiting the shopping areas is an experience not to be missed. Temperatures will be mild and pleasant at that time of year. A variety of interesting tours will be offered so attendees and their companions can experience Seoul and the surrounding region to the fullest.

The Organizing Committee is delighted to invite you to join them for the first ever IEEE NSS/MIC/RTSD to be held in Korea or even Asia. I therefore look forward to welcoming you to Seoul, in October 2013.

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CELEBRATING 60 YEARS OF THE NSS/MIC

IEEE NUCLEAR & PLASMA SCIENCES SOCIETY

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2013 NSS/MIC/RTSD
Conference e-mail: nssmic2013@yonsei.ac.kr
Conference Web-site: www.nss-mic.org/2013
Return Address : 8F Hyundai Group Bldg., 1-7 Yeonji-dong, Jongro-gu, Seoul, South Korea

POSTAGE

Abstract Submission Deadline

13 May 2013

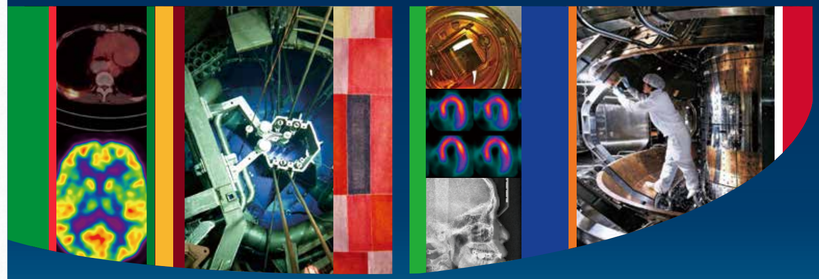
- Plenary Sessions
- Oral Sessions
- Poster Session
- Short Courses
- Refresher Courses
- Workshops
- Industrial Exhibits
- Companion Program

2013 IEEE NSS/MIC/RTSD Seoul, Korea

Institute of Electrical and Electronics Engineers

2013 IEEE NSS/MIC/RTSD

Nuclear **S**cience **S**ymposium & **M**edical **I**maging **C**onference
& Workshop on **R**oom-**T**emperature **S**emiconductor X-Ray and Gamma-Ray **D**etectors



"Beyond Imagination of Future Science"

October 27 - November 2, COEX, Seoul, Korea

Abstract Submission Deadline: **May 13, 2013**

Radiation Detectors and Instrumentation for Nuclear, High-Energy, Space, Solid-State and Bio- Physics Applications, and Homeland Security

Instrumentation and Methods for PET, SPECT, CT, MR, Optical, Multi-Modality and Application-Specific Medical Imaging, and Radiotherapy

Plenary Sessions | Oral Sessions | Poster Sessions | Short Courses
Refresher Courses | Workshops | Industrial Exhibits | Companion Program

General Chair	**Hee-Joung Kim**	/	Yonsei University
Deputy General Chair	**Steve Meikle**	/	University of Sydney
NSS Chair	**Gyuseong Cho**	/	KAIST
NSS Deputy Chair	**Ikuo Kanno**	/	Kyoto University
MIC Chair	**Jae Sung Lee**	/	Seoul National University
MIC Deputy Chair	**Craig Levin**	/	Stanford University
RTSD Co-Chairs	**Jang Ho Ha**	/	KAERI
	Ralph James	/	Brookhaven National Laboratory

Homepage
www.nss-mic.org/2013

E-Mail
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IEEE NUCLEAR & PLASMA SCIENCES SOCIETY

INDUSTRIAL PROGRAM

Vendors with products and services related to the NSS, MIC and RTSD are invited to participate in the Industrial Program which comprises an exhibition and an integrated program of technical seminars. An exhibition area central to conference activities will be provided to display the latest in products and innovation.

Attendees are invited to visit the exhibition area and the technical seminars to learn about the newest products.

Interested vendors should contact:

- Ho Kyung Kim, Industrial Program Co-Chair
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- Ron Keyser, Industrial Program Co-Chair
  Software & Information Services, Inc.
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COMPANION PROGRAM

Seoul offers a fresh Asian travel destination for IEEE members and families. This unique city in the center of Korea offers sights that bear the marks of 2,000 years. Sights include ancient temples, gardens, royal palaces, as well as modern architecture, the Old Town, markets, gardens and mountains. Our companion program will offer daily trips to places of interest in the city and surrounding region during the entire conference. Details will be posted to the website: http://www.nss-mic.org/2013

TRAVEL TO SEOUL

Seoul is easily reached by direct flights from many main cities in Asia, Europe, and North America. There are direct and connecting flights to Seoul Incheon Airport from North America and Europe.

Delta Airlines now also offers direct flights from US to Seoul.

Further information will be posted to the website as the Congress date approaches.

ABSTRACT SUBMISSION

Authors are invited to submit their abstracts electronically to the corresponding Program Chair via the conference website:

http://www.nss-mic.org/2013

A summary describing important features of the paper must be submitted electronically with each abstract. The summary has no pre-determined layout, but should have a maximum length of two pages including tables, diagrams and references, in PDF format. The summary will be the basis for paper selection, and we advise authors to focus on describing the salient aspects concisely. During electronic submission, the topic most closely associated with the author's work may be chosen, though this is not binding. Please indicate whether you prefer an oral or poster presentation. Oral presentations will be exclusively electronic, with no provision for overheads or slides. All abstracts and summaries will be reviewed by the corresponding Program Chairs and their committees. Accepted papers will be sorted between oral and poster presentations and assigned a location within the conference schedule.

PUBLICATIONS

All papers presented, oral or poster, at the NSS, MIC, RSTD, and Workshops will be published in the Conference Record. In parallel, papers that contain important information and of a value for NSS/MIC/RTSD community, are encouraged to be submitted to either IEEE Transactions on Nuclear Science or IEEE Transactions on Medical Imaging, where it fits most. All Transaction papers will be subjected to a formal review process and information on the paper publication will be provided to authors. Should you have any question, please contact the guest editor Yong Choi (ychoi@sogang.ac.kr)

SCHOLARSHIPS

Grants to support attending the conference and short courses are available due to the generous support of individuals, agencies, and companies. The Paul Phelps Continuing Education Grant, the Valentin T. Jordanov Radiation Instrumentation Travel Grant, and the Conference Trainee Grants will be available. The specific requirements and application details will be on the website: http://www.nss-mic.org/2013

SHORT COURSE PROGRAM

An excellent program of short courses will be offered on the start of the NSS/MIC programs, covering a wide range of nuclear and medical technology. All courses include refreshments, lecture notes, and a certificate of completion as part of the registration fee. Full day courses also include lunch. For updated information, including the schedule, please visit the conference website.

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WORKSHOPS

Special focus workshops will address topics of current instrumentation research appropriate to interests of NSS, MIC, and RTSD attendees.

As workshop subjects, coordinators, and times are confirmed, they will be posted on the conference website. Note that some workshops may be before or after the main days of the conference, so check the website for details before making travel arrangements.

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JOINT SESSIONS

Abstract submissions that are of common interest to the NSS/MIC/RTSD community on advanced tools and technologies may be eligible for selection to the special NSS/MIC, NSS/RTSD, MIC/RTSD, or NSS/MIC/RTSD joint sessions.

NUCLEAR SCIENCE SYMPOSIUM

The IEEE Nuclear Science Symposium (NSS) offers an outstanding opportunity for scientists and engineers interested, or actively working in the fields of, nuclear science, radiation detection, high energy physics and astrophysics, and related software for different applications, to meet and discuss with colleagues from around the world. The scientific program provides a comprehensive review of the latest developments in radiation instrumentation technology, their implementation to the experiments in the basic science such as particle physics and astrophysics and their application to bio-medical research, homeland security, nuclear power etc. The NSS program consists of plenary, parallel, and poster sessions. Authors are invited to submit papers describing original, previously unpublished work in the NSS topics areas listed here:

- New Concepts in Solid-State Detectors
- Scintillators and Scintillation Detectors
- Photodetectors
- Gaseous Detectors
- Neutron Detectors and He-3 Alternatives Developments
- Radiation Imaging Detectors
- Environmental Radiation Monitors and Dosimeters
- Analog and Digital Circuits
- Trigger and Front-end Systems
- Digitalization, Acquisition, and Signal Processing Technologies
- Radiation Hardness Technologies and Devices
- Radiation Damage Effects
- Analysis Methods and Software Tools
- Simulation and Computing Technologies
- Astrophysics and Space Instrumentation
- Synchrotron Radiation and Accelerator Instrumentation
- High-Energy Physics Instrumentation
- Nuclear Physics Instrumentation and Applications
- Instrumentation for Bio-Medical Research
- Instrumentation for Homeland Security
- Instrumentation for Experimental Reactors and Nuclear Power

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MEDICAL IMAGING CONFERENCE

The IEEE Medical Imaging Conference (MIC) is the foremost international scientific meeting on the physics, engineering and mathematical aspects of nuclear medical imaging. As the field develops, multi-modality approaches are becoming more important. The content of the MIC reflects this, with a growing emphasis on the methodologies of X-ray, optical and MR imaging also in relation to nuclear imaging techniques. In addition, specialized topics will be addressed in the Short Courses.

Authors are invited to submit papers describing original and innovative contributions to the field of medical imaging in the topics listed below:

- Emission Tomography Instrumentation (PET, SPECT)
- Other Medical Imaging Technologies (CT, MR, Optical, Ultrasound, etc.)
- Multi-Modality Systems
- High Resolution & Pre-Clinical Imaging Instrumentation, Techniques and Systems
- Intra-Operative Probes & Portable Imaging Systems
- New Detector Materials/Technologies for Medical Imaging
- Image Reconstruction Methods
- Data Corrections and Quantitative Imaging Techniques
- Simulation and Modeling of Medical Imaging Systems
- Front End Readout and Data Acquisition Electronics
- Signal processing and Image Processing
- Parametric Imaging and Tracer Kinetic Modeling
- Imaging in Radiotherapy

We look forward to receiving your submissions to the conference.

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20TH INTERNATIONAL WORKSHOP ON ROOM-TEMPERATURE SEMICONDUCTOR DETECTORS (RTSD)

The 20th International Workshop on Room-Temperature Semiconductor Detectors (RTSD) represents the largest forum of scientists and engineers developing new semiconductor radiation detectors and imaging arrays. RTSD for X-ray, gamma-ray, and neutron radiation are increasingly finding applications in diverse fields, such as medicine, homeland security, astrophysics and environmental remediation. The objective of this workshop is to provide a forum for discussion of the state of the art in the development of semiconductor materials and photoconductive materials for radiation detection, material and detector characterization, device fabrication processes, electronics and applications. Oral and poster presentations representing a broad spectrum of research activities emphasizing either device or material understanding are sought. Authors are encouraged to submit abstracts on original work in the following areas:

- Semiconductor Materials for Radiation Detection
- Organic and other Photoconductive Materials for Radiation Detection
- Crystal Growth, Materials and Defects Characterization
- Strip, Pixel and Discrete Semiconductor Detectors
- 3D Photon Tracking Detectors and Image Reconstruction Technology
- Properties of Electrical Contacts and Device Fabrication Technology
- Radiation Damage, Long-Term Stability and Environmental Effects
- Scintillator/Semiconductor Array Hybrids
- Solid-state Neutron Detectors
- Detector/ASIC Hybridization, Interconnects and Electronics
- Spectrometer Systems for Homeland Security, Nuclear Inspections Safeguards and Portal Monitoring
- Imaging Systems for Medical, Astrophysics, Non-Destructive Testing and Cargo Monitoring Applications

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