

## Paper Submission

(March 15 ~ May 31, 2011)

All authors are required to upload their submissions to the conference website ([www.imid.or.kr](http://www.imid.or.kr)). Please prepare your paper in Microsoft Word format for the submission. The paper shall consist of 2 pages including illustrations.

The deadline for submission of the paper is **May 31, 2011**. Notification of acceptance of the paper will be sent via an e-mail to the corresponding author by **July 15, 2011**.

The submitted paper will either be accepted or rejected based on technical merits evaluated by peer reviewers. The accepted paper might be reassigned to an oral or poster presentations of appropriate topical session at the discretion of program committee.

At least, one author of each accepted papers must complete his/her registration and pay the registration fee by August 31, 2011 (Author Registration Due); otherwise the papers will be withdrawn from the proceedings publication.

### Format of Submission

The format of paper will be posted at the conference website ([www.imid.or.kr](http://www.imid.or.kr)).

Number of pages allowed for the paper of IMID 2011 is 2 pages.

The Title should be concise and informative enough to facilitate understanding of the paper. Acronyms should not be in the Title.

Authors' names should preferably be written in full name for all publications to facilitate indexing and avoid ambiguities.

Less than five keywords related to the article should be listed.

The Abstract is limited to less than 100 words, which should provide the conclusions and all results of general.

All text must be in a two-column format. The manuscript is recommended to have formal sections of regular papers, i.e., introduction, experimental procedure, results, discussion, summary, acknowledgement and references. However, depending on contents of manuscript, it may not include all the sections listed above. Total number of figures and tables are recommended not to exceed more than 10 in total. Also, the number of references may not exceed 15.

Equations should be neatly typed, punctuated and aligned to bring out their structure, and numbered on the right. Use  $x$  rather than a centered dot, except for scalar products of vectors. The solidus (/) should be used instead of built-up fractions in running text, and in display wherever clarity would not be jeopardized. Use "exp" for complicated exponents.

Notation must be legible, clear, compact, and consistent with standard usage.

A Reference section should follow the text. Reference should be made to the full list of authors rather than to first author followed by an abbreviation such as et al.

### Format of Presentation

Invited oral presentation to the conference will follow to a 25-minute format (20 minutes for presentation and 5 minutes for questions and answers) and contributed oral presentations to a 20-minute format (15 minutes for presentation and 5 minutes for questions and answers).

## Awards

Outstanding papers among all the papers submitted to IMID 2011 will be selected for the Awards of Minister of Education, Science and Technology (Republic of Korea), Merck and KIDS. They will be selected by the award committee based upon their originality and the technical significance to information display industry. In addition, Conference Chairman Awards for excellent poster presentation will be presented.

### Names of Awards

- Awards of Minister of Education, Science and Technology (Republic of Korea)
  - Grand Award (total 1 paper) : KRW 2,000,000
- Merck Awards – Merck Grand Awards, Merck Young Scientist Awards
  - Merck Grand Award (total 3 papers) : KRW 6,000,000 / 1 paper
  - Merck Young Scientist (total 2 papers) : KRW 1,000,000 / 1 paper
- KIDS Awards (Sponsored by LG Display and Samsung Electronics)
  - Gold (total 2 papers) : KRW 6,000,000 / 1 paper
  - Silver (total 2 papers) : KRW 3,000,000 / 1 paper

## Exhibition

IMID 2011 Exhibition will be held from October 12th through 14th, 2011. We expect active participation and much interest from the worldwide exhibitors.

The IMID Exhibition has provided the best opportunity for exhibitors in the world to reach a large and diverse audience of the information displays. In the IMID 2010 Exhibition 365 booths were exhibited by 101 companies and over 55,000 people visited the booth to find the state-of-the-art information on the latest developments in the information displays such as LCDs, PDPs, OLEDs, Flexible displays, and display processing equipments, materials and components. We expect the IMID 2011 Exhibition will attract more exhibitors and attendees and provide the exhibitors a successful business opportunity.

The 1st deadline of the application for participation for the exhibition is March 31, 2011 (10% discount), the 2nd deadline is May 31, 2011 (5% discount), and the final deadline is July 31, 2011. The selection process for the participation will be on first-come first-served basis.

## KINTEX, Venue of IMID 2011

surrounded by nearby attractions of culture & entertainment



### Lake Park

· 10 minute distance  
· Lake / Park  
The paradise inside a city. The largest lake park in the East. Various facilities and beautiful environment.

### Western Dome

· 10 minute distance  
A shopping mall with the environment friendly structure providing multi cultural spaces combining restaurant and office town.

### La Festa

· 10 minute distance  
· Cuisine / Movie / Shopping  
A big shopping complex including fashion, food, beauty, clinic and game, etc.



### Anygol Café Village

· 20 minute distance  
Romantic street with the reminiscence of 1980's Baekmachon. A popular leisure town offering various cuisines and amusements.

### Theme Park Zoo Zoo

· 20 minute distance  
This is Korea's very first museum of living animals. At the nature-friendly field for experiential learning, children and juveniles can get close to animals living in nature and can see them.

### Paju Book City

· 20 minute distance  
It is established as a national cultural industry complex for the development of Korean book publication culture. An environment friendly space and culture town filled with beautiful architectures.



### Heyri Village

· 20 minute distance  
A cultural art village providing various culture genres in one place. <source: Heyri Office>

### Wondang Jongma Park

· 25 minute distance  
Racehorses are raised at this park. You can see beautiful scenery of the farm and horses grazing at the open grassland and hills.

### DMZ Tour

· 30 minute distance  
This is not only a tourist showplace but a place for security that cherishes unification of South and North Korea and ruminates on the pain of the tragic division of the Korean peninsula. It includes tourist routes such as Imjingak, Panmunjeom, and Dora Observatory Platform.



### Gyeongbok Palace

· 50 minute distance  
It is a representative palace of Joseon Dynasty providing a noble and dignified quintessence of the royal culture. <source: Korea National Tourism Organization>

### Insa-dong

· 50 minute distance  
Insa-dong is the authentic traditional culture and art zone of Seoul, filled with lots of curio shops, art galleries, antique art shop, etc. < source: Korea National Tourism Organization>

### Namsangol Hanok Village

· 50 minute distance  
It is a traditional Korean house village providing traditional sentiment to the people. <source: Korea National Tourism Organization>

## Transportation at a Glance



Please visit the Conference website ([www.imid.or.kr](http://www.imid.or.kr)) and click [Transportation] to find the best way to get to IMID 2011 Venue.

## Venue – The 2nd KINTEX

The 2nd KINTEX will be constructed at a site of 200,566m<sup>2</sup> and composed of 4 exhibition halls, a multi-purpose hall, conference rooms and offices, etc. The 1st and 2nd KINTEX will be inter-connected with the public pedestrian passages and moving walks.



## Key Dates

**Paper Submission Deadline (2 Pages) : May 31, 2011 (Tue.)**

- Acceptance Notification  
July 15, 2011 (Fri.)
- Late-news Submission Deadline  
July 15, 2011 (Fri.)
- Author Registration  
July 15 (Fri.)~ August 31, 2011 (Tue.)
- Pre-registration  
July 15 (Fri.)~ September 20, 2011 (Tue.)

## Points of Contact

All questions or inquiries for further information regarding IMID 2011 should be directed to one of the followings:

### IMID 2011 General Secretariat

Byung Doo Chin, Assistant Professor  
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### Hyun Jae Kim, Professor

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### IMID 2011 Secretariat

The Korean Information Display Society (KIDS)  
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Web Site: [www.k-ids.or.kr](http://www.k-ids.or.kr) / E-mail: [kids@k-ids.or.kr](mailto:kids@k-ids.or.kr)  
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### IMID 2011 Program Secretariat

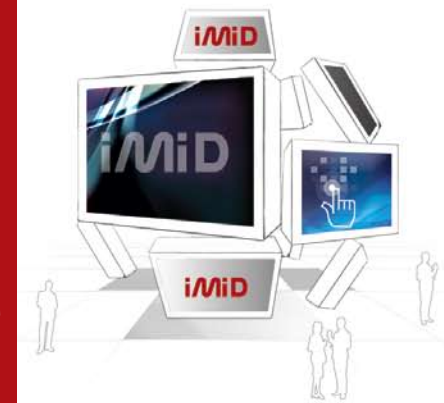
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### IMID 2011 Local Arrangement Secretariat

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### IMID 2011 Exhibition Secretariat

Korea Display Industry Association (KDIA)  
2F, TUKOBI Bldg., 707-1 Yeongsam-dong, Kangnam-gu, Seoul  
135-987, Korea  
Web Site: [www.imidex.org](http://www.imidex.org) / E-mail: [lhj@kdia.org](mailto:lhj@kdia.org)  
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The 11th International Meeting on Information Display

# IMiD 2011

October 11-15, 2011 / KINTEX, Seoul, Korea

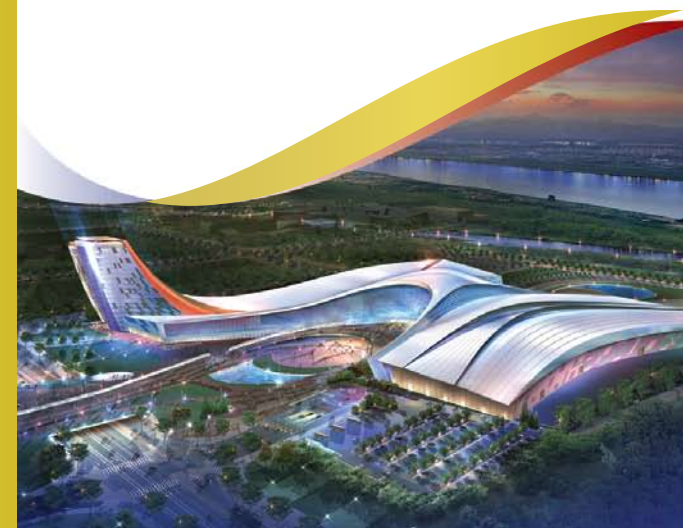
**Paper Submission Deadline (2 Pages) : May 31, 2011**

### Organized by

The Korean Information Display Society (KIDS)

The Society for Information Display (SID)

DisplaySearch (DS)





## Welcome Message

Dear Colleagues,

It is a great pleasure and honor for me to welcome you to the 11th International Meeting on Information Display (IMiD 2011) to be held from October 11 to 15, 2011 at KINTEX, Seoul, Korea.

IMiD 2011 is being organized by the Korean Information Display Society (KIDS) and Society for Information Display (SID).

We truly believe that the IMiD 2011 will surely provide participants with great opportunities to exchange most recent ideas and information, and share innovative achievements in information display area. Please come and join the IMiD 2011 to share and exchange your ideas with other distinguished scientists and engineers.

Korea in October is one of the most attractive travel destinations. The charming scenery, the colorful cultural activities, and the world-famous Korean food will make Korea an excellent venue for intellectual events. You will find your stay in Seoul both rewarding and pleasant.

We look forward to seeing you at IMiD 2011.



Tae-Hoon Yoon  
Tae-Hoon Yoon

Executive Committee Chair of  
IMiD 2011

## IMiD 2011 Features

- Keynote Addresses
- Technical Sessions consisted of invited and contributed papers for oral and poster presentations
- Tutorials / Workshops
- Business Forum
- Awards
- Banquet
- Social Events and Tours
- Exhibition

### Keynote Addresses

IMiD 2011 Keynote session will be designed to share insights, map issue and explores solutions among peers and with important global leaders from information display industries.

### Tutorials / Workshops

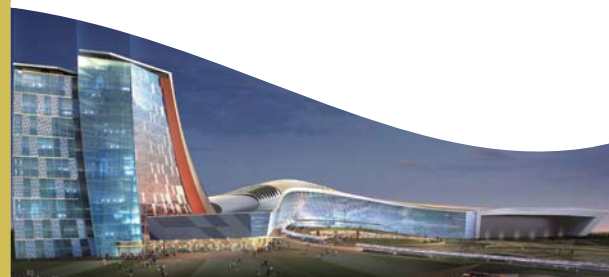
The **tutorials** are aimed to provide introductory courses for the newcomers to the information display technologies.

The **workshops** will provide in-depth analysis on fundamental and recent advances in important display technologies.

The prominent speakers will talk for the tutorials and workshops of variety fields. (Topics of Tutorials / Workshops will be announced.)

### Business Forum

DisplaySearch Korea and KIDS will be hosting the Display-Search Business Forum in IMiD 2011 at KINTEX, Seoul, Korea.



## Conference Scope

### 1. 3D Displays

Technologies for delivering 3rd dimension to viewers: *3D Display Systems including Stereoscopic / Autostereoscopic / Multi-view / Super-multi-view / Volumetric / Holographic Displays; 3D Contents Generation including 3D Image Capture and 2D-3D Contents Conversion; User-interaction with 3D Displays; 3D Image Formats and Standards; 3D Image Compressions; Human Factors*

### 2. Active-Matrix Devices

Advances in development and implementation of active-matrix backplanes and all of display & electronic devices with active-matrix backplanes: *Active-Matrix LCDs & OLEDs for TV, Monitor, Note-PC and Mobile Device; Novel and High Performance Active-Matrix Display Devices and Addressing Methods; Integrated Active-Matrix Driving Circuits and Sensors; System-on-Panel (SOP); Backplane Technology for AMOLED & High Performance LCD; LTPS TFTs; Micro & Nano-crystal Silicon TFTs; Oxide & Transparent TFTs; Organic TFTs; Nano Technology Based TFTs; Solution Based TFTs; other new TFTs*

### 3. Color Imaging, Human Factor, and Display Measurement

Advances in display image quality evaluation, enhancement, human factors and display measurements: *Image Quality Evaluation; Image Enhancement Algorithms and Technologies; Color Image Processing; Color Management and Control; Display System Performance; Perception; Human Factors; Display Measurements; Display Related Standards; Color in Displays; Characterization of Displays*

### 4. Display Electronics, Systems, and Application

Progress in driving methods, driving electronics, display panel peripherals and system design technologies for display devices and new display applications: *Driving Methods and Circuits for Display Devices; Driver IC's; Image Signal Processor; System-On-Glass (SOG) and System-On-Panel (SOP) Technologies; Image Enhancement Methodologies and Systems; Display Interface Technologies; and All Other Display Electronics Technologies and New Applications*

### 5. Display Manufacturing and Equipments

Advances in process technologies for display manufacturing, and manufacturing issues for breakthrough in the display performances, cost reduction, and throughput: *New Process Technologies; Thin-Film & Thick Film Deposition; Printing; Patterning; Etching*

### 6. Display Materials, Components, and BLU

New development of materials and components for displays including new functional materials for substrates, active/passive materials, their properties, and fabrication methods for components: *Backlight; Color Filters; Polarizer; Optical Films; PDP Materials and Components; Electrode Materials; Dielectric Materials and Process; Oxide Semiconductors; Glasses; Printable Materials for Display*

### 7. Field Emission Display and Technologies

Field emission material and devices, field emission display technology, and novel applications of field emission technology: *Field Emission Theory; Field Emission Materials; Field Emission Devices; Lamps based on Field Emission Technology; Phosphors for Field Emission, Novel Devices for Field Emission Technology*

### 8. Flexible Displays and Electronic Paper

All aspects of flexible displays and electronic papers, including advances in organic materials (both small molecules and polymers) and flexible oxide semiconductors, organic and flexible oxide semiconductor devices on the flexible substrates and the related fabrication processes including printing process, device physics, measurement and characterization of thin film transistors, driving methods, various display modes for electronic papers: *E-papers; Flexible Backplanes; Flexible LCDs; Flexible OLEDs; Flexible Substrates and Barriers; Thin Film Encapsulation; Electrode and Interconnection; Processes (including Patterning and Printing); Manufacturing*

### 9. LC Technologies

Advances in the development of liquid-crystal materials, electro-optical effects, and devices: *LC Materials; LC Modeling; LC Alignments; LC Modes; LC Devices; High Performance LCDs; Reflective LCDs; Blue Phase LCDs; Flexoelectric LCDs; Biaxial LCDs; Ferro-/Antiferro-electric LCDs; Polymer/LC composite Devices*

### 10. LED

Fundamental theory and new development for LED, BLU, solid state lighting and LED convergence applications including new functional materials for substrates, phosphors, optics, heat dissipates, design of processes, reliabilities and FMA, standardization and photometry:

*New and High Efficiency Light Emitting Diodes; Back Light Unit using Light Emitting Diodes; LED Lighting for General Applications; LED Lighting for Convergence Applications; Advanced Materials, Components and Modules for LED and LED Lighting; Reliability and Measurement of LED and Lighting; Fundamental Theory; Design and Processes for LED and Lighting; Colloidal Quantum-Dot LEDs*

### 11. Lighting and Extraction Technologies

New developments of Lighting and Extraction Technologies for LED, OLED and lamp systems in the design, manufacturing and performance characteristics: *Novel Lighting Systems and Sources; Solid-state Lighting including OLED and LED; Fluorescent Lamp Lighting Systems; Optical Designs and Methods for Extraction Technologies; Flat Illumination Panels; Illumination Systems; Ambient Lighting, Lighting Measurements; Novel Lighting-Control Technologies*

### 12. MEMS and Emerging Technologies

New and emerging display technologies including MEMS: *Micromirror Devices; Microshutter Display; Interferometric MEMS Display; Grating Light Valves; Microfluidic Display; Back & Front Light Unit using MEMS Technologies; New Display including Emissive & Non-emissive Lighting; any other Novel and Innovative Display Technologies*

### 13. OLED

Advances in the OLED materials, devices, low-cost fabrication processes, AMOLEDs and related technologies: *OLED Materials (Small Molecules, Dendrimers, and Polymers); Device Physics and Characterization; White OLEDs; Tandem OLEDs; OLED Display Manufacturing Issues; Low-Cost Fabrication Processes; Solution Processible Materials; Dopants (p-type and n-type); Electrodes (Low-work Function Cathodes, Transparent Conductors and Graphenes); Encapsulation Technologies*

### 14. PDP

New developments in the design and manufacturing, performance characteristics, driving methods and circuitry: *Fundamental Discharge Mechanisms; Luminous Efficiency Improvement; High Speed Address and Related Reset Waveforms; Cell Design and Material Characteristics; Image Enhancement Technology; Reliability Improvement; Low Cost Driving Circuit and System; Low Cost and High Precision Fabrication Technology; MgO and other Protective Materials*

### 15. Phosphors

All aspects of any types of luminescent materials for use in displays and lightings – phosphors for LEDs, PDPs (also 3D-PDPs), and bio-applications, general lamps, CCFL for LCD BLUs, Inorganic ELs, CRTs, FEDs, PRTs, VFDs, X-ray scintillators, long phosphorescence, mechanoluminescence, inorganic phosphors, quantum dots and organic luminescent materials: *Synthesis and Characterization of Phosphors; Nano-processing; Phosphor-involved Devices Processing; New Design and Application of Phosphors; Energy Transfer and Up-conversion; Combinatorial Approach for Phosphors Development; Thin Film Phosphors; Surface Coating for Phosphors*

### 16. Photovoltaics

Special session on recent progress on processes, materials, and devices of next generation solar cells: *Si Solar Cells; Compound (CIGS, II-VI, III-V) Thin Film Solar Cells; Dye-Sensitized and Organic Solar Cells; Hybrid and Nano-based Solar Cells; Nanomaterial-sensitized Solar Cells; Plasmonics and Nanophotonics-enhanced Solar Cells; Materials, Modeling, and Characterization for Next Generation Solar Cells*

### 17. Projection and Public Displays

All aspects of the latest technologies in the field of projection, public, and large area displays: *Pico-projectors; Projection Displays with Laser or LED Technologies; Large-area Displays based on Projection Technologies; Near-eye Displays; Digital Signage; Optical Systems; Micro Displays*

### 18. Touch and Input Technologies

All aspects of recent developments on touch and input technologies including material, component, circuit, and system integration: *Touch Controller Design and Integration, Display-Integrated Touch Systems, Very-Large-Scale Integration of Touch for Consumer Products, Dual- and Multiple-Touch Systems and Their Adoption, Existing, New, and Emerging Touch Applications, Interactive User Interface, New User Interface Technologies with Motion Sensing*