Final Call for Papers

IDW '15 - The 22nd International Display Workshops

December 9-11, 2015
Otsu Prince Hotel, Otsu, Japan
Sponsored by
The Institute of Image Information and Television Engineers
The Society for Information Display
http://www.idw.or.jp/

FEATURES

This IDW will integrate fifteen technical topics in specialized fields playing important roles in information display activities. Each technical topic will consist of oral presentations by invited/contributed speakers and poster presentations. Detailed and fruitful discussions on each specialized R&D update will be provided. Four special topics of interest, Oxide-Semiconductor TFT, Augmented Reality and Virtual Reality, Lighting Technologies, and Printed Electronics are specially highlighted this year. The workshops should be of interest not only to researchers and engineers, but also to those who manage companies and institutions in the display community.

CONFERENCE SITE

Otsu Prince Hotel stands on the south edge of Biwako, the largest lake in Japan. Otsu, located about 10 km east of Kyoto, is rich in history and nature. Numerous historical sites, such as the Mii-dera and Ishiyama-dera temples, and seven out of the eight scenic spots known as the Omi Hakkei, are found in the city. The best known is Enryaku-ji Temple at Mt. Hiei, a World Cultural Heritage Site. In particular, from November through early December, these historic landmarks are surrounded by colorful autumn leaves, creating some breath-taking scenery. Since it takes only 10 minutes from Kyoto Station to Otsu Station by the JR Biwako Line, Otsu is easily accessed by way of JR Kyoto Station from major Japanese cities using the Shinkansen. It takes 85-100 minutes by JR lines from Kansai International Airport in Osaka to Otsu Station. A shuttle bus is available from Otsu Station to the Conference Site (10 minutes). For more information, please refer to the following web sites.
Otsu Prince Hotel: http://www.princehotels.com/en/otsu/
Biwako: http://en.biwako-visitors.jp/
Otsu City: http://www.jnto.go.jp/eng/location/regional/shiga/otsu.html

DEADLINES AND KEY DATES

Submission of Technical Summary - - - - - - - - - - - - - - ***June 25, 2015***
Acceptance Notification/Author's Kit available on the website
- - - - - - - - - - - - - - - - - - ***July 21, 2015***
Submission of Camera-Ready Manuscript & Abstract
- - - - - - - - - - - - - ***September 3, 2015***
Submission of Late-News Paper - - - - - - - - - - - - ***September 24, 2015***
Early Bird Registration Discount - - - - - - - - - - - - - ***October 30, 2015***

LANGUAGE

The official language is English.

SHORT PRESENTATION

"Short Presentation Session" for poster presenters to be introduced as part of e-Paper and Projection and Large Area Displays sessions!

Special, Keynote and Invited Addresses

Special Address
- ***Lighting the Earth by LEDs***
  Hiroshi Amano (Nagoya Univ.)

Keynote Address
- ***Global Business of Mobile Device***
  Speaker Candidate from China

Invited Address
- ***Interactive Contents and Interface Technologies***
  Yoshifumi Kitamura (Tohoku Univ.)

In addition, further Keynote or Invited Address will be presented.
Please see our website for the detailed information.

The titles are tentative.

Special Topics of Interest

- ***Oxide-Semiconductor TFT***
- ***Augmented Reality and Virtual Reality***
- ***Lighting Technologies***
- ***Printed Electronics***

Paper submissions are eagerly recommended to these special topics.

Demonstration Session For All Oral and Poster Presenters:

Opportunity for an interdisciplinary technical demonstration/discussion in a larger space, more preparation and demonstration time than in the Author Interviews and Demonstrations.
You can present impressive and innovative display experiences to all participants.

EXHIBITION

The IDW '15 Exhibition covers materials, components, manufacturing and measuring equipment, software systems and other related products for display devices.
To make an exhibition, please contact the IDW '15 Secretariat.

The latest information is available on http://www.idw.or.jp/

The Advance Program will be available in September 2015, including REGISTRATION and HOTEL INFORMATION.

IDW SCOPE AND OUTLINES

International Display Workshops (IDW) include a variety of topics and aspects of display technology, system, process and applications. In particular, this year's IDW will feature fifteen general Topics of Scope and four developing fields for advanced technologies on Special Topics of Interest (STI). The special topics are these recent hot topics: Oxide-Semiconductor TFT, Augmented Reality and Virtual Reality, Lighting Technologies, and Printed Electronics.
The IDW Scope includes a variety of topics of display materials and components, display devices, electronic system, quality evaluation, interactive technologies, manufacturing process, equipment and applications listed below. We encourage the submission of original papers on all aspects of research, technical development, measurement systems, driving methods, data management and applications of information displays and related technologies. We particularly encourage submissions on topics of emerging interest in the research and development communities.

SPECIAL TOPICS OF INTEREST

Oxide-Semiconductor TFT

Organizer Workshops: AMD, FMC and FLX
Facilitator: Mutsumi Kimura (Ryukoku Univ.)

Recently, research and development on amorphous oxide-semiconductors such as In-Ga-Zn-O (a-IGZO) and similar materials have been carried out worldwide. Studies on other materials and polycrystalline oxide-semiconductor TFTs have also been activated. Currently, a-IGZO TFTs have already been mass produced for use in AM-LCDs, and AM-OLEDs. This special topic will cover all aspects of science and technologies for oxide-semiconductor TFTs.

Scopes

1) Oxide semiconductor materials and fundamental mechanisms
2) Device physics, fabrication processes and equipment
3) Oxide-TFT display circuits and embedded systems
4) Issues: illumination instability, degradation, etc.
5) Oxide-TFT backplane for LCD, OLED display, e-Paper
6) Flexible devices, transparent electronics, sensors, and other applications

Augmented Reality and Virtual Reality

Organizer Workshops: FMC, 3D, VHF, PRJ, DES and INP
Facilitator: Yuji Oyamada (Tottori Univ.)

This topic will cover all aspects of technologies, systems, applications and human factors for information display using a fusion of real and virtual. Demonstration sessions will be held to give impressive AR and VR experiences to all participants.

Scopes

1) Augmented reality (AR), mixed reality (MR) and virtual reality (VR) technologies
2) Projection mapping technology on real objects
3) Displays for AR, MR and VR (Video and Optical See-through type displays including HMD and HUD)
4) Input and interactive technologies for AR, MR and VR
5) Image processing for AR, MR and VR

Lighting Technologies

Organizer Workshops: PH, OLED and MEET
Facilitator: Yasunori Kijima (JOLED)

This topic will cover all aspects of science and technologies of lightings, ranging from LED lighting, OLED lighting, flexible lighting, manufacturing of lightings, materials and device structures for lightings and internal or external efficiency enhancement technologies.

Scopes

1) Solid-state lighting: LED and OLED
2) Fluorescent light sources: CCFL and HCFL
3) Flexible lighting including backlight unit for LCD
4) Quantum dots and other quantum-structured devices
5) Manufacturing of lightings and their applications
6) Materials and device structures for lightings
7) Technologies about the internal or external efficiency enhancement
8) Theories, simulations and measurements for lightings
9) Energy consumption and environmental issues
10) Miscellaneous topics related with lightings

Printed Electronics

Organizer Workshops: AMD, FLX, FMC, LCT and OLED
Facilitator: Hajime Hirata (Toray Eng.)

Printing technologies are opening up a new era of electronic devices with their advantages of high productivity, low cost, large scale and low environmental-burden fabrication. In this topic, we will cover all aspects concerning printed electronics from scientific and technological viewpoints.

Scopes

1) Devices, sensors, circuits, displays and systems fabricated with printing technologies.
2) Printing technologies for fabricating electronic devices.
3) Electronic material suitable for printing.
4) Fabricating process and equipment for printed electronics.
5) Self-assembling and controlling alignment for printed electronics.
6) Evaluating and inspecting technologies for printed devices.

WORKSHOPS AND CHAIRS

All of the IDW topics will be organized by following workshops.

LCT	LC Science and Technologies	: *Takahiro Ishinabe (Tohoku Univ.)*
AMD	Active Matrix Displays	: *Hideya Kumomi (Tokyo Inst. of Tech.)*
FMC	FPD Manufacturing, Materials and Components	: *Kalil Käläntär (Global Optical Solutions)*
PH	EL Displays and Phosphors	: *Yoichiro Nakanishi (Shizuoka Univ.)*
FED	Field Emission Displays, CRTs and Plasma Displays	: *Hidenori Mimura (Shizuoka Univ.)*
OLED	OLED Displays and Related Technologies	: *Kazuhiro Monzen (Nissan Chem. Inds.)*
3D	3D/Hyper-Realistic Displays and Systems	: *Masaru Tsuchida (NTT)*
VHF	Applied Vision and Human Factors	: *Taiichiro Kurita (NHK Media Tech.)*
PRJ	Projection and Large-Area Displays and Their Components	: *Satoshi Ouchi (Hitachi)*
EP	Electronic Paper	: *Hiroshi Arisawa (Fuji Xerox)*
MEET	MEMS and Emerging Technologies for Future Displays and Devices	: *Masayuki Nakamoto (Shizuoka Univ.)*
DES	Display Electronic Systems	: *Haruhiko Okumura (Toshiba)*
FLX	Flexible Electronics	: *Munehiro Kimura (Nagaoka Univ. of Tech.)*
INP	Touch Panels and Input Technologies	: *Nobuyuki Hashimoto (Citizen Holdings)*

TOPICS OF IDW SCOPE

3D/Hyper-Realistic Displays

This topic will cover several current topics encompassing 3D/hyper-realistic displays, systems and other related technologies.

Topic Areas

1) Stereoscopic, autostereoscopic, holographic and other 3D display technologies and systems
2) Immersive, interactive and VR display technologies and systems
3) 3D/hyper-realistic image interaction technologies and systems for Augmented Reality (AR)
4) New image capturing devices or systems for 3D, hyper reality and interaction
5) New output devices or systems for 3D, hyper reality and interaction
6) Digital archive systems for 3D or hyper reality
7) 3D/ hyper-realistic image coding, 2D to 3D conversion, multi-viewpoint representation and other 3D/hyper-realistic image processing
8) Human factor and evaluation of 3D/hyper-realistic display techniques and systems

Active-Matrix Displays

This topic will cover all aspects of active matrix displays.

Topic Areas

1) Active-matrix displays based on liquid crystals, organic light-emitting diodes, electrophoresis, electrochromism, field emission (FE), micro-electro mechanical systems
2) Active devices including oxide TFTs, organic TFTs, silicon-based TFTs, CNT-FETs, Dirac-cone based devices (graphene, silicene, BN, MoS_2, etc.), solution-processed devices
3) Issues in high-resolution/large-area active matrix display and devices including array and circuit design technologies, addressing schemes, systems, fundamentals, device physics, structures, processes, new materials, evaluation methods, reliability, mechanical testing
4) Novel emerging active-matrix displays and devices
5) Novel applications of active-matrix devices including touch, imaging, and any other sensors, flexible displays, curved/bendable displays, micro displays, wearable displays, digital signage

Display Electronic Systems

This topic will cover all aspects of electronic systems including hardware as well as software on all kinds of displays.

Topic Areas

1) Driving methods, circuits and systems for AMOLEDs and LCDs
2) Video processing including deinterlace, scaling and elimination of artifacts and blur
3) High quality color reproduction systems including high dynamic range and wide color gamut systems
4) High-fidelity systems such as professional use and master monitors
5) Exploration of future standards such as post-HDTV
6) Video interface technologies including data transmission and storage
7) Novel display systems including mobile/auto applications
8) Cooperative operations of functional components
9) Circuit technologies including high speed and low power driving
10) High image quality display systems

Emissive Technologies

This topic will cover all aspects of science, technologies, and applications of phosphor, such as phosphor screens for electronic displays, lighting source, and other emissive devices, and will also deal with those for FEDs, CRT, ELDs and PDPs.

Topic Areas

1) Fundamental mechanisms and configurations
2) Modeling and simulation
3) Materials, components and fabrication processes
4) Field emission physics and characteristics
5) Inorganic ELDs (materials, process, devices, drive circuits, etc.)
6) LEDs (materials, devices, panels, lighting, etc.)
7) Quantum dots and other quantum-structured devices
8) Phosphors for CRTs, PDPs, FEDs, VFDs, LEDs
9) Driving technologies and signal processing
10) Picture quality, reliability and lifetime
11) Applications of FEDs, CRT, ELDs and PDPs

Emerging Technologies and Novel Applications

This topic will cover all aspects of emerging technologies, innovative and state of the art nanotechnologies beyond the conventional technical classification, MEMS, and novel applications for future displays, imaging devices, related electron devices, and systems, ranging from materials research and basic device physics to display and other applications.

Topic Areas

1) Displays, imaging devices, and other optical and electron devices using quantum dot devices, quantum dot materials, MEMS, graphene,CNT, fullerene, nanocarbon etc.
2) Devices, materials, and theory using quantum effects including lasers, solar cells, etc.
3) Emerging technologies, emerging materials, and their applications for novel devices
4) Cutting edge microdisplays such as micro LED matrix displays, nano-technology displays, imaging devices and other electron devices using emerging technologies and emerging materials.
5) Sensors and actuators for electromagnetic wave, infrared rays, ultra-violet rays, X-rays, visible rays, supersonic wave, hearing, touch, smell, taste, etc.
6) Materials, components and fabrication processes
7) Fundamental mechanisms and configurations
8) Interdisciplinary science and technologies such as media arts and sciences
9) Miscellaneous topics related to future displays

e-Paper

This topic will cover all aspects of electronic paper ranging from materials science and devices to human factors and various applications for the future.

Topic Areas

1) Advancement of various display technologies for e-Paper to enhance colors, brightness and contrast ratio
2) Novel functional materials and components
3) Driving method
4) Human interfaces suitable for e-Paper from paper-like displays to tablet PCs
5) Various applications of e-Paper such as e-Books and e-Newspapers
6) Discussion of the social impact of e-Paper
7) Evaluation method taking account of human factors

Flexible Electronics

This topic will cover all aspects of flexible electronics, including material science, device physics, fabrication processes, and application systems for next-generation technology.

Topic Areas

1) Novel flexible devices in display and non-display fields
2) Flexible/stretchable mechanism and strategy
3) Flexible substrate innovation (plastic film, metal foil, ultra-thin glass sheet, textile, paper, etc.) and encapsulation
4) Excellent transistors in flexible organic/inorganic electronics
5) High-performance display principles (OLED, LC, electronic paper, etc.)
6) Fabrication methods especially for flexible devices (printing techniques, roll-to-roll process, transfer techniques, etc.)
7) Tolerance evaluation for bending and stretching deformation
8) Revolutionary device applications (bendable, foldable, roll-up screen, hanging, wearable, wrapping usages, etc.)

Interactive Technologies

Touch panel technology continues to evolve. Camera systems are often employed in auto-stereoscopic displays. Sensing and displaying 3D positions in space literally open a new dimension for a truly intuitive human interface. This topic covers all aspects of input technologies related to displays, ranging from materials, devices, application systems to discussions on how we interact with various systems.

Topic Areas

1) Out-cell, On-cell and In-cell touch panels
2) Touch panel materials, devices, production processes and systems
3) Image sensors
4) 2D, 3D imaging devices and systems
5) Adaptive and personalized interfaces
6) Input systems for augmented reality
7) Human-computer interaction and other emerging interactive technologies

Human Factor

This topic will cover all aspects of vision and human factors related to information displays, such as visual requirements, image-quality, or measurements on displays, as well as new display applications and display ergonomics.

Topic Areas

1) Visual requirements for display characteristics: luminance, contrast, grayscale, color, resolution, frame rate, viewing angle, etc.
2) Display image format for better visual experience, such as UHDTV
3) Analysis and improvement of image quality on displays, such as dynamic range, color reproduction or moving image artifacts
4) Evaluation of image quality, such as subjective evaluation of new displays or quality-improvement methods
5) High quality color reproduction for high dynamic range and wide gamut displays
6) Display measurement methods relevant to human factors
7) New display applications, such as virtual/augmented reality systems
8) Display ergonomics, such as legibility/usability of displays, or actions/behaviors related to visually displayed information
9) Visual fatigue or eye strain relevant to displays, such as 3D or LED backlights

Liquid-Crystal Technologies

This topic will cover all aspects of liquid crystal (LC) science and technologies, including LC material science, device technology, fabrication processes, evaluation method, and new technologies for display, photonics, and sensing applications.

Topic Areas

1) Physicochemical studies of LC materials
2) Nano-structural LC alignment and devices including blue phase
3) Surface alignment processes and characterization techniques
4) Electro-optic effects, display modes, optical design and simulations including 3D technologies
5) Fabricating, manufacturing, measuring and evaluation techniques
6) High performance displays featuring excellent image quality
7) Color filter and rendering technologies
8) LC technologies for flexible displays and electronic papers
9) Optical functional devices for non-display applications including LC lens and sensor
10) LC semiconductors and organic electronics
11) LC photonic crystals and lasers

Manufacturing, Process and Equipment

This topic will cover technology trends and all flat panel displays from the perspective of manufacturing, application systems and fabrication processes including flexible and printing techniques.

Topic Areas

1) Equipment and materials for production
2) Measurement and evaluation equipment
3) Fabrication methods for not only conventional substrates but also flexible substrates, including printing techniques, soft lithography, roll-to-roll process and transfer techniques for high precision, large area and high productivity

Materials and Components

Displays are sustained by a wide spectrum of advanced materials and components. In this topic, new materials and components technologies for display systems, and the modifications and improvements of the existing systems are treated.

Topic Areas

1) Novel materials and components for display systems
2) Technology trends in panel construction and display systems
3) Micro-color filter technologies and manufacturing optical devices or systems
4) Novel material and component technologies in automotive, avionics, military, shipboard, transparent, signage and simulator displays
5) LED/OLED/emissive source materials; quantum-dot / phosphor, lighting fixtures components, electro-optics devices and materials
6) Display lighting materials / components and fabrications, including light directing films
7) New developments in backlight unit (BLU) and frontlight unit (FLU) for transmissive, reflective, and transflective displays
8) Innovated technologies for 3D (stereoscopic, volumetric, holographic, light field) displays, AR / VR, flexible electronics; ultra-high resolution; EPD and MEMS/MEOMS

MEMS

This topic will cover all aspects of science and technologies of MEMS for future displays, imaging devices, and related electron devices, ranging from materials research and basic device physics to display and other applications.

Topic Areas

1) Displays, imaging devices and other optical and electron devices using MEMS
2) Optical MEMS such as optical scanners, optical switches, optical mirrors, optical space modulators, optical filters, etc.
3) Sensors and actuators
4) Materials, components and fabrication processes
5) Fundamental mechanisms and configurations

Organic Light-Emitting Displays and Organic Devices

This topic will cover all aspects of science and technologies of OLED, ranging from materials research and basic device physics to display including backplane technologies and other applications.

Topic Areas

1) Materials for organic devices (OLED, OTFT, OLET)
2) Device physics and related phenomena of organic devices
3) Backplane technologies for OLED applications
4) Fabrication processes for organic devices
5) Miscellaneous topics related with organic devices
6) Fundamental mechanisms and configurations of organic devices
7) OTFT for OLED displays
8) Organic light-emitting transistors (OLET)
9) OLED for Lightings
10) Flexible organic materials and devices for OLED

Projection and Large Area Displays

This topics will cover all aspects of science, technologies and applications of projection, large area displays and the components.

Topic Areas

1) Projectors (conventional, pico, embedded, laser scanning, projection TV)
2) Intelligent display (wearable, near-eye, AR&VR, applications)
3) Micro display (LCOS, MEMS, HTPS) technologies for projection
4) Optics and optical components (light sources, screens, lenses, mirrors, films, etc.) for projection
5) Algorithms for image processing and artifact mitigation for projection and large-area displays
6) Applications such as digital cinema, 3-D projection, 3-D measurement, signage, interior illumination, and vehicle display systems including head up display, intelligent cockpit, and adaptive headlight
7) Large-area displays, tiled-displays, and projection mapping systems

PAPER SUBMISSION

INSTRUCTIONS FOR SUBMISSION OF TECHNICAL SUMMARY

Submit a Technical Summary in PDF format without any security option via the conference website:

http://www.idw.or.jp/authinfo.html

Follow the submission instructions given on the website and shown below. The Technical Summary will be used only for evaluation and will not be published. The title of the accepted papers, the authors and their affiliations will be published in the Advance Program.

I. Technical Summary Guidelines

The file should be formatted to A4 page size. Details of the format are described in the sample file available on the website (http://www.idw.or.jp/authinfo.html).

The file should contain one or two pages of text in **one column**, with additional pages for figures/tables/photographs. The following items should be included:

(1) **Paper title**

(2) **Names of all authors with their affiliations:** The name of the presenting author should be underlined.

(3) **Abstract:** 50 words or less, highlighting the focus of your paper.

(4) **Presentation style:** Indicate if you wish to have your paper considered for oral or poster presentation.

(5) **Preference of Topics of Interest:** Indicate the closest matching Topics of Interest.

(6) **The body** of the Technical Summary must contain the following.
   (a) Background and objectives: Introduce the state of the subject and describe the goal of your work.
   (b) Results: Describe specific results. Illustrations to highlight your work are encouraged.
   (c) Originality: Clearly describe what are new and/or emphasized points.
   (d) Impact: Discuss the significance of your work and compare your findings with previously published works.
   (e) References: List references covering projects in related areas.
   (f) Prior publications: The paper must be an original contribution. If you have published or presented material for similar work, explain how the present material differs.

II. Online Submission

Access **http://www.idw.or.jp/authinfo.html**

The submission procedure consists of three steps:

(1) **Questions to authors:** Select the number of authors, affiliations and maximum number of affiliations for one author.

(2) **Paper title & author information:** Enter the paper title, the names of all authors, all affiliations, information about the presenting author, the Scope/Special Topics of Interest name and presentation preference.
Please understand that the title may be edited by the program committee.
An acceptance/reject notification will be sent to you via the e-mail address that you provided on the website.

(3) **Confirmation & submission:** Please take time to review the paper title and the author information carefully as mistakes cannot be rectified after the file is uploaded. Select a file name of the Technical Summary to submit to our server. When the file is successfully uploaded, a "FINISH" message will appear on the screen and you will also receive a submission confirmation e-mail.

FORMAT OF PRESENTATION

Accepted papers will be assigned to either oral or poster presentation in the most suitable Topics of IDW Scope/Special Topics of Interest at the discretion of the program committee.

(1) **Oral presentations**
- Oral presentations will usually conform to the 20-minute format including questions and answers. The program committee will determine the duration of presentation.
- Oral presenters are strongly urged to attend the Author Interviews and Demonstrations after the presentation (a table and AC 100 V power will be made available).

(2) **Poster presentations**
- Poster presentation will conform to a 3-hour format in front of an individual poster in board.
- A table and AC 100 V power will be made available.
- "Short Presentation Session" to introduce poster presenters as part of several topics. All poster presenters in several topics are required to give a brief, 3-minute oral presentation with no discussion time.

ACCEPTANCE

You will be notified of the results of your Technical Summary review via e-mail. Upon acceptance of the Technical Summary, authors must prepare a camera-ready manuscript to be published in the conference proceedings. The author should use the manuscript template, which will soon be available on the conference website. It will be four pages in length and in a two column format. Acceptance is subject to following conditions:

(1) Registration is required before the camera-ready submission for all presenters.

(2) All company or government releases must be obtained.

(3) The author must be the copyright holder or have written permission from the copyright holder for any material used in the paper.

(4) Your submitted paper must not be published in any media including personal websites on the Internet before it is presented at the conference.

(5) One of the authors must give a presentation at the conference. For the poster session, at least one of the authors must stand by their posters during their core time, which will be set in the session.

LATE-NEWS PAPERS

A limited number of late-news papers reflecting important new findings or developments may be accepted. Authors are requested to submit a 2-page camera-ready manuscript on A4-sized pages accompanied by an abstract. Access the conference website: http://www.idw.or.jp/authinfo.html
Follow the submission instructions given on the website.

COPYRIGHT

The copyrights of your submitted camera-ready manuscript will be transferred to ITE, SID and IDW. The copyright terms and conditions are available on the conference website (http://www.idw.or.jp/copyright.pdf).

TRAVEL GRANTS

A limited number of travel grants will be available to full-time student presenters attending from outside Japan. Check the travel grant application box of the online submission mentioned above.

IDW Best Paper Award, IDW Outstanding Poster Paper Award and Demonstration Award

The award committee of IDW will select the most outstanding papers and demonstration from those presented at IDW '15. The winners will be announced on the IDW website.

Invited Talks

- **Photoalignment Materials for LCDs and Functional Films**
  Nobuhiro Kawatsuki (Univ. of Hyogo)
- **The Approach to the Improvement of Display Properties by Liquid Crystal Mixtures**
  Yoshinari Matsumura (JNC Petrochem.)
- **The Latest IPS LCD Technology Realizing Super High Resolution and Wide Color Gamut**
  Ikuo Hiyama (Panasonic)
- **LC GRIN Lens Technology for Multi-Functional 3D Display**
  Shinichi Uehara (Toshiba)
- **Analysis of Novel IPS Mode for Fast Response**
  Toshiharu Matsushima (Japan Display)
- **High Directional LED Lighting for Forming Pattern, HOLO-LIGHT : its Business Developments and Prospects**
  Takahiro Ikeda (Pi Photonics)
- **Observer Metamerism in Displays**
  Yuta Asano (Rochester Inst. of Tech.)
- **Aging of the Eye and Vision Centered Design of Displays**
  Takushi Kawamorita (Kitasato Univ.)
- **Augmented Reality Visualization Fusion**
  Yuji Oyamada (Tottori Univ.)
- **Duality in Computational Photography and Display**
  Shinsaku Hiura (Hiroshima City Univ.)
- **BIOTEXTURE: Life Reverse Engineering**
  Maki Sugimoto (Kobe Univ.)
- **Haptic Technologies for Surface Interaction**
  Hiroyuki Kajimoto (The Univ. of Electro-Communications)
- **Technology Trend of In-cell Touch Panel**
  Daisuke Ito (Japan Display)
- **Improved Signal Processing for Capacitive Touch Panel with Conductive and Non-Conductive Object Distinction.**
  Jason Taylor (Sharp Labs. of Europe)
- **Development of a TV System Augmented Outside the TV Screen**
  Hiroyuki Kawakita (NHK)
- **Recent Progress on the Understanding of Molecular States in OLED films: Molecular Orientation, Packing, and Mixing**
  Daisuke Yokoyama (Yamagata Univ.)
- **Recent Advances in Understanding of the Electronic Processes in OLEDS**
  Jang-Joo Kim (Seoul National Univ.)
- **Molecular Design of High Efficiency Thermally Activated Delayed Fluorescent Emitters**
  Jun-Yeob Lee (Sungkyunkwan Univ.)
- **Recent Advances in OLED Lighting**
  Manuel Boesing (Philips)

The titles are tentative.
Additional invited talks are being arranged.

OVERSEAS ADVISORS

Brian H. Berkeley	(SID, USA)
Janglin Chen	(ITRI, Taiwan)
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general-chair15@idw.or.jp	executive-chair15@idw.or.jp	program-chair15@idw.or.jp

ITE **IDW '15** SID SOCIETY FOR INFORMATION DISPLAY

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December 9-11, 2015
Otsu Prince Hotel, Otsu, Japan

Secretariat: c/o Bilingual Group Ltd.
3-3-6 Kudan Minami, Chiyoda-ku, Tokyo 102-0074, Japan
Phone: +81-3-3263-1345 Fax: +81-3-3263-1264 E-mail: idw@idw.or.jp
http://www.idw.or.jp/