



IDW/AD '16 - The 23rd International Display Workshops in conjunction with Asia Display 2016

December 7-9, 2016
Fukuoka International Congress Center, Fukuoka, Japan

Sponsored by
The Institute of Image Information and Television Engineers
The Society for Information Display
<http://www.idw.or.jp/>

FEATURES

IDW consists of workshops technically categorized in specialized fields playing important roles in information display activities. This year a new workshop is set up as a topical session. Each workshop organizes own sessions which consist of oral presentations by invited/contributed speakers and poster presentations where detailed and fruitful discussions on each specialized R&D update are provided. The workshops also come together to form the sessions in the common application named "Special Topics of Interest". 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

The city of Fukuoka is located in the northern part of Kyushu Island, and is very conveniently located with excellent access not only from within Japan but also from abroad. Fukuoka Airport is about an hour's flight from Kansai International Airport and about 2 hours from Narita International Airport. From the Airport, the central station of Fukuoka, the JR Hakata Station, is only 5 minutes by subway. One can also reach Hakata in 5 hours from Tokyo by Shinkansen (bullet train). One of the city's greatest appeals is its compactness, which allows transportation from Fukuoka airport to the downtown area only within 10 minutes and to major tourist spots in 20 to 30 minutes. Fukuoka is Western Japan's most active city in business, culture, and industry. It has been one of the country's major gateways for Asian continental cultures since olden times.

The Fukuoka International Congress Center is located only 1.5 km from the center of Fukuoka city, Tenjin, and only about 2.5 km from JR Hakata station. This is an excellent advantage for the itineraries of conference-goers at the end of the day. Ferries and jetfoils at the adjacent international terminal of Hakata port run routes to Pusan, Korea.

Please see the following websites for more information.
Fukuoka International Congress Center:
<http://www.marinemesse.or.jp/eng/index.html>
Fukuoka Convention & Visitors Bureau:
<http://www.welcome-fukuoka.or.jp/english/>

DEADLINES AND KEY DATES

Submission of Technical Summary----- June 23, 2016
Acceptance Notification/Author's Kit available on the website
----- July 19, 2016
Submission of Camera-Ready Manuscript & Abstract
----- September 1, 2016
Submission of Late-News Paper ----- September 23, 2016
Early Bird Registration Discount ----- October 28, 2016

LANGUAGE

The official language is English.

3DSA

3DSA: the 8th International Conference on 3D Systems and Applications will be held in the Special Topics of Interest on AR/VR and Hyper Reality.

Topical Session

- *User Experience and Cognitive Engineering*

Keynote and Invited Addresses

Keynote Addresses

- *Future Trends of Display Technology*
Chung-Chun Lee (BOE Tech. Group)
- *How to Build a Holodeck*
Christian Sandor (NAIST)

In addition, Invited Address will be announced.
Please see our website for the detailed information.

The titles are tentative.

Special Topics of Interest

- *Oxide-Semiconductor TFT*
- *AR/VR and Hyper Reality*
- *Lighting and Quantum Dot Technologies*
- *Printed Electronics*
- *Automotive Displays*

Paper submissions are eagerly recommended to these special topics.

EXHIBITION

The IDW/AD '16 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/AD '16 Secretariat.

SHORT PRESENTATION

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

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

The Advance Program will be available in September 2016, including REGISTRATION and HOTEL INFORMATION.

IDW SCOPE AND OUTLINES

International Display Workshops (IDW) include a variety of topics and aspects of display technologies, systems, processes and applications. In particular, this year's IDW will feature fifteen general Topics of Scope and five emerging fields for advanced technologies on Special Topics of Interest (STI). The special topics are these recent hot topics: Oxide-Semiconductor TFT, AR/VR and Hyper Reality, Lighting and Quantum Dot Technologies, Printed Electronics and Automotive Displays.

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 and e-Paper
- 6) Flexible devices, transparent electronics, sensors, and other applications

Lighting and Quantum Dot Technologies

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

This topic will cover all aspects of science and technologies of solid-state lighting and Quantum Dot (QD), ranging from LED lighting, OLED lighting, QD-OLED, flexible lightings, manufacturing, materials and device structures, internal and external efficiency enhancement technologies and backlight technologies using QD.

Scopes

- 1) Solid-state lighting; LED, QD and OLED
- 2) Materials and device structures for lightings and backlight unit
- 3) Color enhancing materials; Quantum Dot (QD) and Quantum Rod (QR)
- 4) Technologies about the internal and external efficiency enhancement
- 5) Flexible lighting, e.g. Flexible OLED lighting, Flexible QD backlight unit
- 6) Theories, simulations and measurements for lightings and QD technologies
- 7) Quantum Dot and other quantum-structured devices, e.g. QD-OLED
- 8) Energy consumption and environmental issues
- 9) Manufacturing of lighting, QD and their applications
- 10) Miscellaneous topics related with lightings and QD

AR/VR and Hyper Reality

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

This topic will cover all aspects of technologies related to display applications closest to the end user such as Virtual Reality, Augmented Reality (mixture of VR and the real world), and Hyper Reality (hyper realistic display systems). Authors of all accepted papers are highly encouraged to present their papers in the I-DEMO (Innovative Demonstration Session).

Scopes

- 1) Devices, sensors, circuits, displays, and any systems for AR, VR, and Hyper Reality such as light field camera, motion capture, holographic technology, HMD/HUD, projection mapping, etc.
- 2) Software technique for AR, VR, and Hyper Reality such as image processing, computer vision, computer graphics, audio-visual processing, human-computer interaction, etc.
- 3) Capturing and display technologies not only for visual but also for haptic, acoustic, thermal and other Kansei information
- 4) The human factor in AR, VR, and Hyper Reality systems

Printed Electronics

*Organizer Workshops: LCT, AMD, FMC, OLED and FLX
Facilitator: Mitsuru Nakata (NHK)*

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

Automotive Displays

*Organizer Workshops: OLED, 3D, VHF, PRJ, DES and FLX
Facilitator: Kazumoto Morita (Nat. Traffic Safety & Environment Lab.)*

The significance of visual interface has been increasing in automobiles. This topic will cover all aspects of display technologies used in- or outside of automobiles, including the following scopes.

Scopes

- 1) OLED/LCD display and Projection-display technologies for car-interior use
- 2) Head-up displays, augmented reality, night-vision systems for automobiles
- 3) Novel visual interface and in-vehicle/external display applications
- 4) Displays as a human interface with intelligent transportation systems
- 5) Vision and human factors specific to automobiles
- 6) Image and information processing for automotive displays
- 7) Specific display electronics appropriate for automobiles
- 8) Materials/components/device structures suited to automobiles

TOPICAL SESSION

User Experience and Cognitive Engineering

Session Chair: Hirohito Shibata (Fuji Xerox)

IDW launches a new topic focusing on user studies and interaction design proposals to explore future display environments. This topic will cover all aspects of social studies, cognitive science, and human-computer interaction that aim to open up new use scenarios of displays.

Topic Areas

- 1) Ethnography and social studies on how people use displays
- 2) Survey and analysis of user needs

- 3) Cognitive experiments on how displays affect users' behavior
- 4) Design principles for various types of displays
- 5) Novel interaction techniques and interactive applications for displays
- 6) Table-top interface, mobile-device interaction, and cross-device interaction
- 7) Computer-supported cooperative work (CSCW) using displays
- 8) Digital reading applications and educational software
- 9) Entertainment computing and media art

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, volumetric, head-mounted and other 3D/hyper-realistic 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) Multiple cameras, light-field camera, depth camera, 3D scanner, and other detection 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, MoS₂, etc.) and 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 and 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 and 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, ultraviolet 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-Document
- 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.)

I-DEMO (Innovative Demonstration Session) for all oral and poster presenters:

I-DEMO (Innovative Demonstration Session) offers an 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.

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 UHD TV
- 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 aspects of flexible electronic displays from the perspective of manufacturing and printing fabrication processes.

Topic Areas

- 1) Fabrication methods of flexible displays
- 2) Manufacturing process; soft lithography, R2R process and transfer techniques for high precision, and large area
- 3) Measurement and evaluation equipment

Materials and Components

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

Topic Areas

- 1) Novel materials and components for display systems
- 2) Technology trends in panel structure and display systems
- 3) Manufacturing of optical components, devices or systems, and color filter technologies
- 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-optic 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 transreflective displays
- 8) Innovative technologies on material and component 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, QLED)
- 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) Quantum-dot light-emitting devices (QLED)
- 10) OLED for Lightings
- 11) 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: Include 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 the 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 question and answer period. 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 the 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. Acceptance is subject to following conditions:

- (1) Registration is required before the camera-ready submission for all presenters.
- (2) Each presentation requires registration fee. Contact the IDW secretariat if you give more than two presentations.
- (3) All company or government releases must be obtained.
- (4) The author must be the copyright holder or have written permission from the copyright holder for any material used in the paper.
- (5) Your submitted paper must not be published in any media including personal websites on the Internet before it is presented at the conference.
- (6) 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.
- (7) Notice that the acceptance may be canceled in case of the inferior camera-ready manuscript.
- (8) The camera-ready manuscript should be three or four pages in length and a two column format.

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 and SID. 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/AD '16. The winners will be announced on the IDW website.

Invited Talks

- **High Mobility and Operational Stability of Top-Gate Thin-Film Transistors Based on Solution-Processable Organic Semiconductors**
Takashi Nagase (Osaka Pref. Univ.)
- **Carbon Nanotube Thin-Film Transistors for Flexible Devices**
Yutaka Ohno (Nagoya Univ.)
- **Organic Complementary Circuits Based on Solution-Processed Organic Transistors: Toward Flexible Electronics**
Mayumi Uno (Tech. Res. Inst. Osaka Pref.)
- **Electronic Color Target for Color Calibration of Wide Gamut Image Devices**
Yoshifumi Shimodaira (Shizuoka Univ.)
- **What Kind of Motion is The Primary Cause of Visually Induced Motion Sickness?**
Hiroyasu Ujike (AIST)
- **Interaction with Image Information by Use of Somatic Sensations**
Yuichiro Kume (Tokyo Polytechnic Univ.)
- **Edge Sealing Technology for Foldable AMOLED Display**
Glory Chen (ITRI)
- **Substrates and Non-ITO Electrodes for Flexible OLEDs**
Mitsuhiro Kodan (Yamagata Univ.)
- **Projection Mapping Technologies for AR**
Daisuke Iwai (Osaka Univ.)
- **Animation of Static Objects by Projection Mapping**
Shinya Nishida (NTT Commun. Sci. Labs.)
- **Displaying Real World Light Fields Using Stacked LCDs**
Keita Takahashi (Nagoya Univ.)
- **Smart Piezoelectric Fabric and Its Application**
Yoshiro Tajitsu (Kansai Univ.)

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

OVERSEAS ADVISORS

Brian H. Berkeley	(Highlight Display, USA)	Hoi-Sing Kwok	(Hong Kong Univ. of S&T, Hong Kong)
Janglin Chen	(ITRI, Taiwan)	Chung-Chun Lee	(BOE Tech. Group, China)
Norbert Fruehauf	(Univ. of Stuttgart, Germany)	Kalluri R. Sarma	(Honeywell Int., USA)
Amal Ghosh	(eMagin, USA)	Han-Ping D. Shieh	(Nat. Chiao Tung Univ., Taiwan)
Min-Koo Han	(Seoul Nat. Univ., Korea)	Dietmar Theis	(Tech. Univ. Munich, Germany)
Jin Jang	(Kyung Hee Univ., Korea)	Baoping Wang	(Southeast Univ., China)
Yong-Seog Kim	(Hongik Univ., Korea)	Larry F. Weber	(Consultant, USA)

CHAIRS

General Chair
Mutsumi Kimura (Ryukoku Univ.)
general-chair16@idw.or.jp

Executive Chair
Munekazu Date (NTT)
executive-chair16@idw.or.jp

Program Chair
Reiji Hattori (Kyushu Univ.)
program-chair16@idw.or.jp

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 Kälántár (Global Optical Solutions)
PH	Inorganic Emissive Display and Phosphors	: Yoichiro Nakanishi (Shizuoka Univ.)
OLED	OLED Displays and Related Technologies	: Toshiaki Ikuta (JNC Petrochem.)
3D	3D/Hyper-Realistic Displays and Systems	: Masaru Tsuchida (NTT)
VHF	Applied Vision and Human Factors	: Yuzo Hisatake (Japan Display)
PRJ	Projection and Large-Area Displays and Their Components	: Satoshi Ouchi (Hitachi)
EP	Electronic Paper	: Keisuke Hashimoto (E Ink Japan)
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)
UXC	User Experience and Cognitive Engineering	: Hirohito Shibata (Fuji Xerox)
3DSA	The 8th International Conference on 3D Systems and Applications	: Kazumasa Enami (Tokyo Inst. of Tech.)



IDW/AD '16



The 23rd International Display Workshops in conjunction with Asia Display 2016
December 7-9, 2016
Fukuoka International Congress Center, Fukuoka, 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/>