iMiD 2024

The 24th International Meeting on Information Display

SHARE DISPLAY, SHARE LIFE

August 20-23, 2024 | ICC Jeju, Jeju, Korea

ICC JEJU

IMID 2024 in Jeju

Keynote Speakers

Chung Yi
Executive Vice President
and Head of Corporate Business
(Mobile/IT Display)
Samsung Display, Korea

Julie J. Brown
Executive Vice President and
Chief Technology Officer
UDC, USA

Younghoon Han
Head of EC Lab and Vice President
Hyundai Mobis, Korea

Important Dates

- Paper Submission — ~~March 31 (Sun.)~~ April 14 (Sun.)
- Acceptance Notification — May 31 (Fri.)
- Pre-registration — June 10 (Mon.) - August 2 (Fri.)
- Late-news Paper Submission — June 30 (Sun.)
- Late-news Acceptance Notification — July 12 (Fri.)

Organized by

The Korean Information Display Society (KIDS)

KIDS 한국정보디스플레이학회 The Korean Information Display Society

The Society for Information Display (SID)

SID

Sponsors

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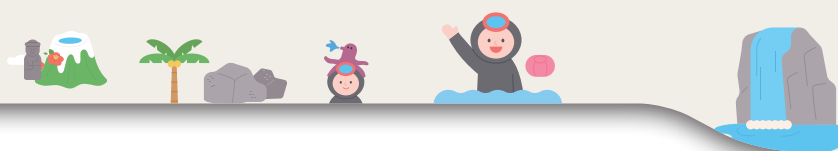
Conference Information

Format	Offline Conference
Date	August 20 - 23, 2024
Location	ICC Jeju, Jeju, Korea
Organized by	- The Korean Information Display Society (KIDS) - The Society for Information Display (SID)
Program	- Opening Ceremony - Keynote Addresses - Tutorials / Workshops - Regular Sessions (Oral & Poster Presentation) - Young Leaders Conference - Focused Session - Exhibition

Program at a Glance [Tentative]

Aug. 20 (Tue.)	Time	Halla A (Room A)	Halla B (Room B)	Samda (Room C)	301 (Room D)	302 (Room E)	303 (Room F)	401 (Room G)	402 (Room H)	Event Hall (1F)
	14:00 ~18:00	Tutorials & Workshops / Half-day Tour								

Aug. 21 (Wed.)	Time	Halla A (Room A)	Halla B (Room B)	Samda (Room C)	301 (Room D)	302 (Room E)	303 (Room F)	401 (Room G)	402 (Room H)	Event Hall (1F)
	09:00 ~ 10:30	Oral 01	Oral 02	Oral 03	Oral 04	Oral 05	Oral 06	Oral 07	Oral 08	Exhibition
	10:30 ~ 10:50	Coffee Break								
	10:50 ~ 12:20	Oral 09	Oral 10	Oral 11	Oral 12	Oral 13	Oral 14	Oral 15	Oral 16	
	12:20 ~ 13:20	Lunch								
	13:20 ~ 14:50	Poster Session I								
	14:50 ~ 15:10	Break Time								
	15:10 ~ 15:40	Opening Ceremony								
	15:40 ~17:10	Keynote Addresses 1~3								
	17:10 ~ 18:30	Opening Party (Ocean View)								

Aug. 22 (Thu.)	Time	Halla A (Room A)	Halla B (Room B)	Samda (Room C)	301 (Room D)	302 (Room E)	303 (Room F)	401 (Room G)	402 (Room H)	Event Hall (1F)
	09:00 ~ 10:30	Oral 17	Oral 18	Oral 19	Oral 20	Oral 21	Oral 22	Oral 23	Oral 24	Exhibition
	10:30 ~ 11:00	Coffee Break								
	11:00 ~ 12:30	Oral 25	Oral 26	Oral 27	Oral 28	Oral 29	Oral 30	Oral 31	Oral 32	
	12:30 ~ 14:00	Lunch								
	14:00 ~ 15:30	Poster Session II								
	15:30 ~ 16:00	Coffee Break								
	16:00 ~ 17:30	Oral 33	Oral 34	Oral 35	Oral 36	Oral 37	Oral 38	Oral 39	Oral 40	
	17:30 ~ 18:30	Break Time								
	18:30 ~ 20:30	Banquet								

Aug. 23 (Fri.)	Time	Halla A (Room A)	Halla B (Room B)	Samda (Room C)	301 (Room D)	302 (Room E)	303 (Room F)	401 (Room G)	402 (Room H)	Event Hall (1F)
	09:00 ~ 10:30	Oral 41	Oral 42	Oral 43	Oral 44	Oral 45	Oral 46	Oral 47	Oral 48	Exhibition
	10:30 ~ 10:40	Coffee Break								
	10:40 ~ 12:10	Oral 49	Oral 50	Oral 51	Oral 52	Oral 53	Oral 54	Oral 55	Oral 56	
	12:10 ~ 13:10	Lunch								
	13:10 ~ 14:40	Oral 57	Oral 58	Oral 59	Oral 60	Oral 61	Oral 62	Oral 63	Oral 64	
	14:40 ~ 14:50	Break Time								
	14:50 ~ 16:20	Oral 65	Oral 66	Oral 67	Oral 68	Oral 69	Oral 70	Oral 71	Oral 72	

Tutorials

The tutorials are aimed to provide introductory courses for newcomers about the information display technologies. The tutorials provide audience with basic topics: QD Material and Patterning, Motion Sickness in the AR/VR, Emerging Devices and Sensors etc.

Workshops

The workshop is aimed to provide fundamental principles and up-to-date progresses of cutting-edge information display technologies. At IMID 2024, a series of pre-conference workshop programs focus on Optics in the AR/VR, Microdisplay System etc.

Young Leaders Conference

Young Leaders Conference will be arranged for 2 Sessions.

- **YLC 1:** YLC Session I is open to young scientists who would like to share and discuss their research achievement. Young Scientists are carefully chosen through our technical program committee and recommended for this session. All participants will take this unique opportunity to hear their recent research result. Please join our Young Leaders Conference.
- **YLC 2:** YLC Session II is open to students who would like to share and discuss their research results. After oral presentations, outstanding presenters among all YLC applicants will be selected by committees based upon their research originality and technical significance.

Paper Submission: ~~March 31 (Sun.)~~ April 14 (Sun.)

All authors are required to upload their paper (Only 1 Page) through the online paper submission system (https://imid2024.genimice.com/index.do). Please prepare your paper in PDF format for the submission. The paper template can be downloaded from our website (http://www.imid.or.kr/2024/online_paper_submission.asp).

Acceptance Notification: May 31 (Fri.)

Notification of Acceptance will be sent via e-mail to the corresponding authors and speakers. The submitted paper will evaluated based on technical merits by peer reviewers. The accepted paper might be reassigned to an oral or a poster presentation of appropriate topical session by our technical program committee.

Pre-Registration: June 10 (Mon.) - August 2 (Fri.)

At least, one author of each accepted papers must complete his/her registration and pay the registration fee by **August 2 (Fri.), 2024;** otherwise the papers will be withdrawn from the proceedings publication.

Conference Scope

01. Special Session I: Display with Free Form Factors

- Flexible, foldable, rollable, and stretchable display technologies, including deformable display materials (substrates, transparent conductors, TFTs, barrier layers); novel processes and manufacturing methods (printing, novel deposition techniques, R2R, lift-off); electro-optical effects; driving techniques and designs for deformable electronic devices; and device performance and reliability for all deformable display technologies.

02. Special Session II: High Resolution Frontplane Technologies for XR

- Materials, manufacturing processes and devices for high-pixel-density display frontplanes for XR; Image quality and processing for high-pixel-density display frontplanes for XR; Human factors and visual experiences for high-pixel-density display frontplanes for XR (LCD, OLED, Micro-LED, Quantum dot, other emerging display type); Pixel structures, optics, and driving techniques, system integration, reliability, and cost-reduction efforts, content generation, and processing for high-pixel-density display frontplanes for XR.

03. Active-Matrix Devices

- Micro & nano-crystal silicon, amorphous and crystalline oxide, oxynitride, metal halide, organic, and carbon nanomaterials based TFTs; quantum dot, perovskite, chalcogenides, 2D layered materials, and other emerging semiconducting materials and gate dielectric materials for TFTs; novel low temperature fabrication and annealing technology for TFTs; solution processed & printed TFTs; new structures/processes and novel application of TFTs; active-matrix devices for LCD, OLED, LED, QLED, and micro displays; novel and high performance active-matrix devices and system-on-panel (SOP); backplane technologies for emerging displays; emerging application of TFTs.

04. AI & Computational Technologies for Display

- All aspects of AI & computational technology for display design/process/manufacturing/ measurement; human vision perception; numerical algorithm; OLED device simulation; quantum computing algorithm; Prediction of material/electrical/optical/mechanical properties of display; Enhancement of image quality; quality prediction of XR and computational displays.

05. Applied Vision/Human Factors

- Research for display devices based on both human vision and physical properties; general display, autostereoscopic, AR/VR form factors, automotive, transparent etc; effective use of a display capability to create a more immersive and compelling experience; approaches to take advantage of limitations of the visual system to process or transmit display data more efficiently; novel methods of user interactions.

06. AR/VR/MR and 3D Display Optics

- Advanced technologies for AR/VR/MR and 3D display; near-to-eye display and head-up display; stereoscopic, light-field, volumetric, and holographic displays; optics for AR/VR/MR and 3D display; image/scene capture, conversion, and machine learning for content generation; spatial computing; image formats, compressions, and standards; user interaction and low-latency techniques for immersive experience; measurement and performance evaluation; novel applications.

07. Display Electronics and Systems

- Advanced algorithms for display driving technology such as AI; display system and peripheral designs; circuits and algorithms for microdisplays; touch interface electronics; TFT circuits (driving methods and circuits for display devices and systems); driver ICs; image signal processors; display interface technologies; driving electronics of touch panels; image quality enhancement methodologies and systems; neuromorphic systems; all novel integrations of displays into specialized devices as well as system-level aspects of electronic displays.

08. Display Manufacturing and Processes

- Thin and thick film deposition, lithography, etching, cleaning, printing, coating, measurement/inspection and various plasma technologies; process & equipment technologies for new and emerging displays including flexible & wearable applications; display manufacturing issues of breakthroughs such as performance, cost reduction, high throughput and flexibility; material issues in display process, including synthesis or deposition of emerging materials; process & equipment technology for display circuits and interfaces; process & equipment for printed electronics including display and sensors fabrication; measurement/inspection technics/application for display manufacturing process.

09. Emerging Materials and Devices for Display Technology

- Emerging display materials and device architectures such as metamaterials, metasurfaces, 2-dimensional (2D) materials, perovskite materials, quantum dot and so on; Emerging display materials for XR display and devices (virtual reality, augmented reality, extended reality, hologram, 3D display, etc). High index low loss materials and active materials for display; Structural color filter for display; Transparent conducting electrode materials for display; Emerging display materials for automotive or aviation display applications, interactive display applications.

10. LC Technologies and Electronic/Optical Materials

- High image quality/resolution/dynamic range LCDs; QD-enhanced LCDs; automotive LCD applications; LC for AR/VR and 3D displays; molecular design/synthesis/new LC materials; LC Chemistry; LC alignment and characterization; LC elastomers and stimuli-responsive materials; LC for EL/PL components; LC for conformable displays; smart window applications; LC Physics; optical design and simulations; optical films for displays; foldable/stretchable films; LC photonic crystals and lasers; LC semiconductors; LC-based sensor; LC lens; up/down conversion LC materials; LC materials for GHz/THz wave modulation; nano-patterning LC template; LC materials for biomedical application.

11. Light-Emitting Materials and Applications

- New development of lighting materials and hybrid lighting technologies: solid-state lighting and color-conversion materials including LED/OLED, phosphors, quantum dots, perovskites, ultra-wide bandgap materials for lighting and display applications; light extraction optics; standardization/certification; photometry; novel lighting convergence technologies for ocean/agricultural/medical/IT/bio/smart/automotive/eye-glass applications.

12. Medical/Bio-integrated Optoelectronic Materials and Devices

- Skin-attachable/implantable/wearable soft materials, devices, and display; bio-integrated/bio-inspired optoelectronics; implantable/wearable medical or bio-photonic devices with display; digital healthcare devices, sensors, and robotics; human-interactive micro/nano-manufactured sensors, actuators, or transducers; bio-compatible/bio-mimetic materials; transient electronics; 3D optoelectronic, bio-mimetic, or bio-fabricated scaffolds; integration processing strategies to address the profound mismatch between biology and optoelectronics; bio-mimetic functionalities such as bio-resorption, self-healing, multifunctional responsiveness, breathability, and recyclability.

13. Metrology & Inspection Technologies for Display

- Novel research of metrology and inspection technology for display industry; process metrology of OLEDoS, LEDoS, QD-display, OLED and LCD devices manufacturing; high and enhancement resolution optical imaging system; artificial intelligence techniques for MI industry; electrical measurement technology of TFT; advanced thickness and fine critical dimension MI technologys; 3D&2D profile measurement systems; oxide material properties measurement techniques; new visual inspection technology.

14. Micro-LEDs

- Advances in LED-based displays; epitaxial and chip processes for micro-LED pixels; the materials and manufacturing process technologies for transfer printing, bonding, repair and inspection; phosphor, quantum dot and perovskite materials for micro-LED color conversion; micro-LED display panel; active and passive driving methods for micro-LED displays; miniaturization technology for flexible and stretchable applications; and active device integrated micro LED module for bio-healthcare and automotive applications.

15. OLED Frontplanes

- OLED materials; device physics and characterization for high-performance OLEDs; enhancement of out-coupling efficiency; improvement of optical properties of OLEDs; device stability and degradation analysis; organic and inorganic interfaces in OLEDs; OLED electrodes; OLED manufacturing; OLED patterning process; solution-processed OLEDs; white OLEDs for displays; encapsulation materials and processes; environmental reliability; novel applications.

16. Soft Sensors and Actuators for Interactive Display

- Flexible and/or stretchable active/passive materials for sensors and actuators; soft organic, inorganic, or hybrid materials with capacitive, piezoelectric, piezoresistive, triboelectric, and/or ferroelectric properties; stimuli (e.g., stress, electric field, light, heat, chemical, etc.)-responsive soft materials; emerging materials and devices for human-machine-interfaces; touch gesture & motion sensing technologies; next-generation tactile sensors and actuators; soft haptics for interactive display; soft sensors on display; soft actuators on display; human-interactive technologies.

17. Quantum Dots

- QD fundamentals, including synthesis and characterization of QDs, optical and electrical properties of QDs; QD display technologies, including QD-based color conversion for LCDs, micro-LEDs, QLEDs; QD-based energy conversion devices and systems; QD photodetectors; high-resolution and fine patterning of QDs; emerging QDs, including perovskite QDs, graphene QDs and more.

Awards

The Award Committee will select award winners from among the presenting authors of oral presentations and posters based on the quality of the presentation at the conference. Please submit your paper for the chance to win an award!

Name of Awards	Grade	Numbers	Prize (per paper)
Merck Award		1 Person	KRW 15,000,000
Merck Young Scientist Award		1 Person	KRW 5,000,000
KIDS Awards (Sponsored by Samsung Display & LG Display)	Gold	2 Papers	KRW 4,000,000
	Silver	2 Papers	KRW 2,000,000
	Bronze	2 Papers	KRW 1,000,000
UDC Innovative Research Award		1 Paper	KRW 15,000,000
UDC Pioneering Technology Award		1 Paper	KRW 15,000,000

※ The number of awards is subject to change depending on result of the review.
※ Best Poster Awards will be selected by an on-site review.

Important Note

- KIDS Awards and UDC Awards are applicable to the papers submitted during the regular submission period (Deadline: ~~March 31, 2024~~ April 14 (Sun.), 2024).
- To be included in the candidates of KIDS Awards and UDC Awards, each author should upload a full paper (at least 4 page or more) through the paper submission on the online system within the submission deadline.
- The final winner of UDC Awards will be selected by the KIDS Award Committee through final presentation review.
- If you would like to be Merck or UDC awardee, it is mandatory to submit your paper to JID (Journal of Information Display). JID is now indexed in the Science Citation Index Expanded (SCIE).

※ Papers previously published in another conference proceedings or journal (or scheduled for publication prior to IMID) will not be accepted.

IMID 2024 Special Exhibition

The IMID 2024 Special Exhibition will run in conjunction with the conference program and offer the exhibition opportunity to interested companies and organization as shown below. The exhibition creates an unparalleled opportunity to promote your products and service face-to-face to attending delegates from all around world.

If you want more information about exhibition, please visit http://www.imid.or.kr/2024/exhibition_guideline.asp

Information for Special Exhibition

Exhibition Title	IMID 2024 Display Future Technology Road Show
Exhibition Schedule	August 21 (Wed.), 09:00-17:00 August 22 (Thu.), 09:00-17:00 August 23 (Fri.), 09:00-12:00 ** Exhibitor Luncheon will be held on August 23 (Fri.).
Venue	Event Hall (1F), ICC Jeju, Jeju, Korea
Program	Special Exhibition (Exhibitor's Booth), Exhibitor's Technology Seminar Booth, Recruiting Booth
Exhibition Items	1) Materials and components related to electronic display (Glass, Color Filter, BLU, Polarizer Film, Drive IC, OLED Material, LCD Materials, Touch Panel Materials, etc.)
	2) Instrument for electronic display (Measuring Instrument, Test System, Equipment for Manufacturing Electronic Parts and Components, Simulator, etc.)

Exhibition Fee (No VAT)

Application Deadline	KIDS/KDIA Membership		KIDS/KDIA Non-Membership	
	Independent Booth (Space Only/6M*6M)	Prefabricated Booth (Standard / 3M*3M)	Independent Booth (Space Only/6M*6M)	Prefabricated Booth (Standard / 3M*3M)
Early-Bird (By April 30, 2024)	KRW 3,500,000	KRW 1,500,000	KRW 5,500,000	KRW 2,000,000
Advance Advance(By June 30, 2024)	KRW 4,500,000	KRW 1,700,000	KRW 6,700,000	KRW 2,300,000
Regular Regular(From July 1, 2024)	KRW 5,100,000	KRW 1,900,000	KRW 7,500,000	KRW 2,500.000

| Benefit for Exhibitor	1) Conference Free Regular Registration per 1 booth (For the University participating as Exhibitor, Choose between 1 Conference Free Regular Registration or 2 Conference Free Student Registration.) 2) Exhibitors Introduction in the special exhibition directory book. 3) Web banner linked with the official website of IMID 2024. 4) Exhibition Entry Fee 10% Discount for the company participated in IMID 2023.
How to Apply	1) Fill in the application form. 2) Send the application with business license by E-mail or FAX. 3) Receive the invoice form by the IMID 2024 secretariat office. 4) Pay the deposit (It must be paid by May 31, 2024 / 50% of total amount). 5) Pay the balance (It must be paid by August 1, 2024).
Application Deadline	1) Early-bird Application: April 30 (Tue.), 2024 2) Advance Application: June 30 (Sun.), 2024 3) Regular Application: After July 1 (Mon.), 2024 ※ Applicants can be rejected if all spaces have been reserved out.

About Jeju Island, Korea

Located southwest of the Korean Peninsula, Jeju Island is a popular tourist destination among domestic and international travelers alike for its beautiful and pristine natural scenery.

Jeju Island is a unique place worldwide, holding the honors of the natural science area such as UNESCO World Biosphere Reserve [2002], UNESCO World Natural Heritage Site [2007] and UNESCO World Geoparks Network [2010]. Jeju Island also consists of all elements for global natural sight theme, including island, volcano, waterfall, beaches, national park, cave and forest.

Also, The reason why Jeju was able to be settled as the best place for the conference is its geographical position. Being located at the center of Northeast Asia, there are direct flights to Jeju from hub airports of the major cities in Northeast Asia. For domestic flight, more than 200 flights are available each day (round-trip).

Venue : ICC JEJU
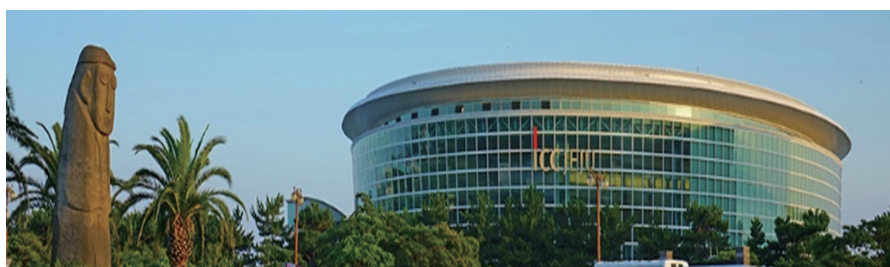
IMID 2024 will be held at the International Convention Center Jeju (ICC JEJU) in Jeju, an island designated as a UNESCO World Natural Heritage site. ICC JEJU is located in the Jungmun Tourist Complex with the cobalt-blue Northern Pacific stretching on the south and towering Mt. Hallasan in the north. Spreading over an area of more than 5,000m^2, the world-class convention center is a 7-story building. Artfully blending tourist resources and convention facility, this resort-style convention center is fully equipped for international meetings of any scale and provides professional logistic support in events hosting. We are looking forward to seeing you in ICC JEJU, Jeju, Korea.

Transportation

If you want more information about transportation, please visit http://www.imid.or.kr/2024/transportation.asp

[Route 1]   Overseas → Direct Int'l Flight to Jeju Int'l Airport
[Route 2]   Overseas → Incheon Int'l Airport → Gimpo Domestic Airport → Jeju Domestic Airport
[Route 3]   Overseas → Gimpo Int'l Airport → Jeju Domestic Airport
[Jeju Airport → ICC]   Option 1. Limousine bus
[Jeju Airport → ICC]   Option 2. Taxi