

## MAIN PROGRAM

- Opening Ceremony
- Regular Sessions (Oral & Poster Presentations)
- Keynote Addresses
- Young Leaders Conference
- Tutorials & Workshops
- Outstanding Student Conference
- Exhibition
- Banquet

## KEY DATES

- Paper Submission**  
March 31 (Mon.)
- Acceptance Notification**  
May 30 (Fri.)
- Pre-registration**  
June 9 (Mon.) - August 1 (Fri.)

## ORGANIZING COMMITTEE

- General Chair** Prof. Jang Hyuk Kwon (Kyung Hee Univ., Korea)
- General Co-Chair** Prof. Hyun Jae Kim (Yonsei Univ., Korea)
- Executive Chair** Prof. Chang-Jae Yu (Hanyang Univ., Korea)
- Executive Co-Chair** Prof. Jun Yeob Lee (Sungkyunkwan Univ., Korea)
- Technical Program Chair** Prof. Min Chul Suh (Kyung Hee Univ., Korea)
- Technical Program Co-Chair** Prof. Jae-Hyeung Park (Seoul Nat'l Univ., Korea)
- Exhibition Chair** Dr. Nam Sung Cho (ETRI, Korea)
- General Secretary** Prof. Jin-Seong Park (Hanyang Univ., Korea)
- Technical Program Secretary** Prof. Jonghee Lee (Hanbat Nat'l Univ., Korea)  
Prof. Youngjoon Hong (Sungkyunkwan Univ., Korea)
- Promotion Secretary** Prof. Yoonseuk Choi (Hanbat Nat'l Univ., Korea)

## EXHIBITION

Exhibition Title	IMID 2025 Display Future Technology Road Show
Exhibition Schedule	August 20 (Wed.) – 22 (Fri), 2025 / 3 day
Venue	2A Hall, Exhibition Center I, BEXCO, Busan, Korea
Program	Special Exhibition (Exhibitor's Booth), Recruiting Booth

## ABOUT BUSAN



Located at the southern tip of the Korean peninsula, Busan is the second largest metropolis in Korea. It is home to the country's longest river, longest beach, and most significant port. Its geography includes a coastline featuring superb beaches, scenic cliffs, and mountains that provide excellent hiking and extraordinary views with hot springs scattered throughout the city. Busan enjoys four distinct seasons and a temperate climate that never gets too hot or cold. For these reasons, Busan is becoming a world-class city for tourism and culture and a hot spot destination for international conventions.

## IMID 2025 VENUE 'BEXCO'

BEXCO, a landmark in the global maritime city of Busan, is a facilitator of successful business that has a vast wealth of knowledge and expertise. The center implements a differentiated operation strategy that is based on its many years of successfully attracting and hosting highly acclaimed, large-scale international events. BEXCO prides itself on being a world-leading exhibition and convention center that offers incomparable value to each of its clients. We are looking forward to seeing you in BEXCO, Busan.

1<sup>st</sup> Call for Paper

imid.or.kr

# IMiD 2025

The 25th International Meeting on Information Display  
**BEYOND PIXELS, BEYOND LIMITS**

AUGUST 19 (TUE.) ~ 22 (FRI.), 2025  
BEXCO, BUSAN, KOREA



Paper (1 page) Submission Deadline  
**March 31 (Mon.)**

Organized by KIDS 한국정보통신산업진흥원 SID

Sponsors MERCK SAMSUNG DISPLAY  
LG Display UNIVERSAL DISPLAY CORPORATION

# WELCOME MESSAGE

On behalf of the organizing committee of the 25th International Meeting on Information Display (IMID 2025), I sincerely thank you for your interest in IMID 2025, which will be held at BEXCO in Busan, Korea, from August 19 to 22, 2025.

IMID 2025 continues a proud tradition of annual conferences that began in 2001, organized by the Korean Information Display Society (KIDS) and endorsed by the Society for Information Display (SID). IMID has established itself as a premier venue for high-quality paper presentations and a distinguished platform for renowned experts worldwide to share groundbreaking research.

IMID 2025 will feature keynote addresses, invited talks, oral and poster presentations, tutorials, workshops, and a young leaders conference (YLC). Attendees will also have the opportunity to explore the latest display technologies and products showcased by leading global companies. We hope this event fosters insightful discussions and builds lasting connections with colleagues and esteemed researchers from around the world.

Through IMID 2025, I hope you discover the vibrant beauty of Busan, where stunning beaches meet rich cultural heritage, and experience the dynamic blend of modern attractions and traditional charm.

We eagerly look forward to welcoming you to Busan, Korea.

Sincerely,



**Prof. Jang Hyuk Kwon**  
General Chair of IMID 2025

# CONFERENCE SCOPE

## 01. Special Session I: Display Technologies for Extreme Environmental Challenges

High-durability materials and designs for displays in extreme temperatures and high-intensity sunlight; LCD readability enhancement for outdoor and high-brightness environments; OLED-based displays for diverse applications, including automotive dashboards, HUDs, AR navigation systems, and architectural integration; environmental testing and evaluation of display reliability, including thermal cycling and UV resistance; sustainability and lifespan optimization for extreme environment applications; case studies and innovations in materials, processes, and system designs for extreme environmental adaptability.

## 02. Special Session II: Static-to-Dynamic Form Factor Displays

Flexible, foldable, rollable, and stretchable display technologies, including deformable display materials (substrates, conductors, semiconductors, barrier layers); novel processes and manufacturing methods (printing, novel deposition/patterning techniques, transfer, laminating/delaminating); electro-optical effects; driving techniques and designs for deformable electronic devices including light-emitting devices and TFTs; and device performance and reliability for all deformable display technologies.

## 03. Special Session III: Ultra High Resolution Micro Displays

Materials, optical components, and devices (LCD, OLED, Micro-LED, Quantum dot, other emerging display type) for ultra-high-resolution micro displays; Pixel structures and manufacturing processes suited to micro displays; Low-power and high-dynamic range driving techniques for ultra-high-resolution micro displays; Image quality and content generation/processing for ultra-high-resolution displays; Human factors and visual experiences for ultra-high resolution micro displays.

## 04. 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.

## 05. AI & Computational Technologies for Display

All aspects of AI & computational technology for display design/process/manufacturing/measurement; visual inspection; scheduling, predictive maintenance, anomaly detection, classification, 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.

## 06. Applied Vision/Human Factors

Investigating display technologies that integrate human visual perception with physical properties, encompassing general displays, stereoscopic, autostereoscopic, AR/VR form factors, automotive, and transparent display devices. This includes optimizing display capabilities to create immersive experiences, leveraging the limitations of the visual system for efficient data processing and transmission, and developing innovative user interaction methods. Furthermore, we also develop and apply display metrology techniques to characterize and evaluate display performance, measuring optical, electrical, and perceptual parameters such as brightness, color accuracy, contrast ratio, and viewing angle, ensuring optimal display performance.

## 07. 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.

## 08. Bio-integrated Optoelectronics and Interactive Displays

Skin-attachable, implantable, or wearable soft materials, devices, and displays for advanced biomedical applications; Bio-integrated/bio-medical optoelectronics for diagnosis, therapy, and real-time health monitoring; Implantable and wearable medical technologies enabling personalized healthcare; Biocompatible sensors for integration into healthcare systems; User-interactive devices and emerging materials for human-machine interfaces; Bio-mimetic materials and 3D optoelectronics for next-generation deformable displays; Manufacturing and process innovations for reliable bio-medical devices and displays.

## 09. 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.

## 10. Display Manufacturing, Metrology, and Inspection

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.

## 11. Emerging Materials and Devices

Emerging display materials and device architectures such as metamaterials, metasurfaces, 2-dimensional (2D) materials, perovskite materials, quantum dot and other related materials; 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.

## 12. 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.

## 13. 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.

## 14. OLEDs

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.

## 15. Quantum Dots

QD fundamentals, including synthesis and characterization of Semiconductor nanocrystal QDs and perovskite, optical and electrical properties of QDs; QD display technologies, including perovskite and 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.