

EXPLORING / EXPANDING / ENRICHING iMiD 2019

The 19th International Meeting on Information Display
August 27 - 30, 2019 / HICO, Gyeongju, Korea

Conference & Exhibition

Keynote Speakers Highlight



[Keynote 1]
Chang-Ho Oh (Executive Vice President)
LG Display Co., Ltd.
Korea
"Beyond Future with OLED"



[Keynote 2]
Xiuqi (Hubert) Huang (Vice President)
Visionox Technology Inc.
P.R China
"The Trend and Opportunity of AMOLED Technology"



[Keynote 3]
Takao Someya (Professor)
University of Tokyo
Japan
"Skin Electronics Connecting Cyberspace to Human Body"



[Keynote 4]
Jim Bonar (Scientific Research Manager)
Facebook Reality Labs
"TBD"

Important Dates to Remember

- Author Registration June 24 (Mon.) ~ July 31 (Wed.), 2019

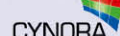
- Pre-registration June 17 (Mon.) ~ August 10 (Sat.), 2019



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Welcome Message

On behalf of the organizing committee of the 19th International Meeting on Information Display (IMID 2019), I would like to sincerely appreciate your attention on the IMID 2019 which will be held at Hwabaek International Convention Center (HICO) in Gyeongju, Korea from August 27 to 30, 2019.

IMID continues a series of the annual conference began in 2001, organized by the Korean Information Display Society (KIDS), the Society for Information Display (SID), and the Korea Display Industry Association (KDIA).

The IMID has become a premier conference for leaders from academia and industry to meet, publish results, and share their knowledge in the information display.

The conference includes keynote addresses, regular sessions (oral&poster presentations), tutorials, workshops, a special exhibition, and young leaders conference (YLC). We sincerely hope that all of our participants will use this valuable time to produce deep and profound discussions on information display field and also make lasting friendships and future colleagues with all of our prestigious researchers.

Especially, Gyeongju, the host city of IMID 2019, served as the ancient capital of the Silla Kingdom (BC 57-AD 935) for 1,000 years during Korea's 5,000-year history, and it is a UNESCO world heritage city. It is considered an "open-ceiling museum" with its many historical sites rich in cultural artifacts. IMID 2019 will be held in this extraordinary place, where culture and technology co-exist today, and we hope you enjoy your staying in Gyeongju inspiring you in various ways.

All the members of the organizing committee are looking forward to meeting you at Gyeongju, Korea.

Sincerely,



Jae Soo Yoo
General Chair of IMID 2019

IMID 2019 Organizing Committee

| | |
|-------------------------------|--|
| • General Chair | Prof. Jae Soo Yoo (Chung-Ang Univ., Korea) |
| • Executive Chair | Dr. Jeong-Ik Lee (ETRI, Korea) |
| • Technical Program Chair | Prof. Yongtaek Hong (Seoul Nat'l Univ., Korea) |
| • Exhibition Chair | Prof. Chang-Jae Yu (Hanyang Univ., Korea) |
| • General Secretary | Prof. Sungkyu Park (Chung-Ang Univ., Korea) |
| • Treasurer | Prof. Seunghyup Yoo (KAIST, Korea) |
| • Technical Program Secretary | Prof. Jae Kyeong Jeong (Hanyang Univ., Korea) |
| | Prof. Hak-Rin Kim (Kyungpook Nat'l Univ., Korea) |

IMID 2019 Advisory Committee

| | |
|--|---|
| Dr. Adi Abileah (Adi-Displays Consulting, USA) | Prof. Jong Duk Lee (Seoul Nat'l Univ., Korea) |
| Dr. Julie Brown (UDC, USA) | Prof. Sin-Doo Lee (Seoul Nat'l Univ., Korea) |
| Prof. Jong Sun Choi (Hongik Univ., Korea) | Prof. Takashi Noguchi (Univ. of the Ryukyus, Japan) |
| Prof. Kyung Cheol Choi (KAIST, Korea) | Dr. Sri Peruvemba (Clearink Displays, Inc., USA) |
| Prof. Ho-Kyoon Chung (Sungkyunkwan Univ., Korea) | Prof. Sung-Tae Shin (Korea Univ., Korea) |
| Dr. Nak Woong Eum (ETRI, Korea) | Prof. Jun Souk (Hanyang Univ., Korea) |
| Prof. Jin Jang (Kyung Hee Univ., Korea) | Dr. Takatoshi Tsujimura (Konica Minolta, Inc., Japan) |
| Dr. In Byung Kang (LG Display Co., Ltd., Korea) | Dr. Armin Wedel (Fraunhofer IAP, Germany) |
| Prof. Hak Sun Kim (UNIST, Korea) | Prof. Ki-Woong Whang (Seoul Nat'l Univ., Korea) |
| Prof. Yong-Seog Kim (Hongik Univ., Korea) | Dr. Xiaolin Yan (TCL Corporate Research, China) |
| Dr. Jin-Oh Kwag (Samsung Display Ltd., Korea) | Dr. Sang Deog Yeo (LG Display Co., Ltd., Korea) |
| Prof. Hoi-Sing Kwok (HKUST, Hong Kong) | Dr. Glenn Young (Merck KGaA, Germany) |
| Prof. Oh-Kyong Kwon (Hanyang Univ., Korea) | |



About HICO, the venue of IMiD 2019



Hwabaek International Convention Center, or HICO, is an exhibition and convention center located in Bomun Tourist Complex in Gyeongju.

The name comes from "Hwabaek," the Korean ancient system of joint sessions in the Silla Kingdom. As an official organization consisting of a panel of judges, Hwabaek made it a rule that a consensus can be reached only with unanimous agreement. It is also a culture of convention that showed the intrinsic nature of an assembly where participants gathered to discuss, share, and communicate in order to obtain the best result. Carrying the age-old spirit of communication, HICO today offers a modern and sophisticated system of exhibitions and conventions befitting contemporary needs.

Address & Contact

507 Bomun-ro Gyeongju-si, North Gyeongsang Province
Tel. +82-54-702-1000

Transportation

- From Singyeongju Station (KTX) - 20 km, 35 minutes (Taxi)
- Intercity Bus Terminal No. 700 (45 minutes)
- From Gyeongju Intercity Bus Terminal - 10 km, 25 minutes (Taxi)
- City Bus 10 (35minutes), 18, 100-1, 150-1, 100, 150, 11
- From Gyeongju Station (Mugunghwa, Saemaeul) - 8 km, 20 minutes (Taxi)
- City Bus No. 10 (30 minutes), 18, 100-1, 150-1, 100, 150, 11

* IMiD 2019 Organizing Committee will arrange the shuttle bus from Singyeongju Station (KTX) to HICO during the conference. The detailed information will be announced through our web-site.





Conference Information

| | |
|---------------------|--|
| Title | The 19th International Meeting on Information Display |
| Date | August 27 ~ 30, 2019 |
| Venue | HICO, Gyeongju, Korea |
| Organized by | The Korean Information Display Society (KIDS) The Society for Information Display (SID) Korea Display Industry Association (KDIA) |
| Language | English |
| Website | www.imid.or.kr |
| Main Program | Opening Ceremony Keynote Addresses Tutorials and Workshops Technical Sessions (Oral & Poster Presentation) Young Leaders Conference (YLC) Display Industry Forum Opinion Leaders Forum Special Exhibition Welcome Reception Banquet Special Tour |

Program at a glance

| Time | Aug. 27 (Tue.) | Aug. 28 (Wed.) | Aug. 29 (Thu.) | Aug. 30 (Fri.) |
|-------------|-------------------------|-------------------|-------------------|--------------------|
| 09:00-09:30 | | Oral Session I | Oral Session III | Oral Session VI |
| 09:30-10:00 | | Coffee Break | Coffee Break | Coffee Break |
| 10:00-10:30 | Tutorials & Workshops I | Oral Session II | Oral Session IV | Oral Session VII |
| 10:30-11:00 | | Lunch | Lunch | Lunch |
| 11:00-11:30 | | Poster Session I | Poster Session II | Poster Session III |
| 11:30-12:00 | | Break Time | Coffee Break | Coffee Break |
| 12:00-12:30 | Lunch | Opening Ceremony | Oral Session V | Oral Session VIII |
| 12:30-13:00 | | Keynote Addresses | | |
| 13:00-13:30 | | Welcome Reception | | |
| 13:30-14:00 | | Special Tour | Banquet | |
| 14:00-14:30 | | | | |
| 14:30-15:00 | | | | |
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| 20:30-21:00 | | | | |
| 21:00-21:30 | | | | |
| 21:30-22:00 | | | | |



Conference Topics

01. Special Session I: Next-Generation OLED TV - OLED, QLED, Printing (Invited Speakers Only)

Large area OLED-based TV display technology: State-of-art technologies and technical issues of high-resolution OLED TVs based on color-filter-array with white OLED and quantum dots with blue OLED technologies (invited speakers only from major panel makers, material companies, and academia).

02. Special Session II: Deformable Display Technologies - Flexible/Foldable/Stretchable

Enabling technology of deformable display and new product concepts: All aspects of flexible, foldable 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); electrooptical effects; driving techniques and designs for deformable electronic devices; and device performance and reliability for all deformable display technologies.

03. Special Session III: Micro-LEDs

Micro-LEDs displays and coverage applications: Advances in LED-based displays; epitaxial and chip processes for micro-LED pixels; the materials and manufacturing process technologies for transfer printing and bonding; phosphor and quantum dot materials for color conversion; frontplane modules; active and passive driving methods for backplanes; flexible and miniaturization technologies; flexible patterns and micro-LEDs in stretchable applications; and active device integration for bio-medical and automotive applications.

04. Special Session IV: AR/VR/MR

Emerging near-eye displays for augmented, virtual, and mixed reality: Display technologies for AR/VR/MR systems; spatial tracking, localization, mapping, and navigation techniques; end-to-end system integration and latencies; inputs, interfaces, and interactions; human factors and user experience considerations; mapping and rendering of virtual objects onto the physical world; object, human, and scene capture; reconstruction, recognition, and understanding; biometrics and user authentication; AR/VR/MR applications.

05. Active-Matrix Devices

Advancement in active-matrix backplane technology: Active-matrix devices for e-paper, LCD, OLED and micro-LED displays; bezel-less display technology; novel and high performance active-matrix devices and system-on-panel (SOP); backplane technologies for high performance LCD and conformable displays; micro & nano-crystal silicon, organic, and carbon nanomaterials based TFTs; oxide, oxynitride, quantum dot, perovskite, chalcogenide, 2D and other emerging semiconducting materials for TFTs; all aspects of solution processed & printed TFTs; new structures/processes and novel application of TFTs.

06. Applied Vision/Human Factors

Novel technology for color science and new visual experiences: New display measurement methods based on both human vision and physical properties; mitigating the challenges by presenting comfortable and engaging 3D imagery (including autostereoscopic, AR, and VR form factors); 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 interaction and HMI with display systems.

07. Display Electronics and Systems

Advanced driving electronics and systems for display and sensor: AI algorithms for advanced driving technology; peripherals and display system designs; 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; display-related AI technologies; neuromorphic system; all novel integrations of displays into specialized devices as well as system-level aspects of electronic displays.

08. Display Manufacturing and Equipment

Advances in process and equipment technologies for displays: Thin and thick film deposition, lithography, etching, cleaning, printing, and various plasma applications; process & equipment technologies for new and emerging displays including flexible & wearable applications; manufacturing issues of breakthroughs in the displays 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.



09. Display Optics - 3D Displays

Advances in 3D and Hyperrealistic Display Technologies: 3D and realistic display systems including stereoscopic, autostereoscopic, multi-view, super-multi-view, volumetric, holographic, hyperrealistic displays; 3D contents generation including 3D image capture and 2D-3D contents conversion; user-interaction with 3D displays; 3D image formats and standards; 3D image compressions; measurement and performance evaluation for 3D Displays; techniques for realistic and immersive experience; human factors; optical technologies for various display systems and devices including LCD and OLED; signage, wearable/near eye displays; backlight units; transparent displays; and other novel display concepts.

10. Emerging Display Technologies

Novel applications of display and lighting devices, emerging material and device technologies for light-emitting systems: Biomedical applications such as phototherapies or photo-biomodulation; electronic shelf labels or signages; automotive or aviation display applications; medical-grade high-contrast/high-definition displays, and/or interactive display applications. Emerging display materials and device architectures such as 2-dimensional (2D) materials, organic/inorganic perovskite materials, and light-emitting devices made thereof. Display elements or systems tailored to wearable applications.

11. Lighting Materials and Applications

Advances in materials and devices for solid-state lighting application: New development of lighting materials; solid-state lighting, and LED/OLED lighting convergence applications including white LEDs; back-light units (BLUs); phosphor and quantum dots for lighting applications; light extraction optics; heat dissipation; LED/OLED lighting driving techniques; characterization and reliability; standardization and certification; photometry; technology for LED/OLED light mixing/driver IC; engine/cooling/optics; lighting modules; novel convergence technologies for ocean/agricultural/medical/IT/bio/smart/automotive applications.

12. Novel LC Technologies

Novel liquid-crystal technologies: Electro-optic effects; novel display modes; optical design and simulations; high performance LCD technology; chemical or physical studies of LC materials; LC alignment processes and characterization techniques; LCD manufacturing; measuring and evaluation techniques; LCD color filter technologies; LC technologies for flexible displays and electronic papers; LC photonic crystals and lasers; LC technologies for 3D and holographic displays; LC semiconductors; LC lens and sensor.

13. OLED Frontplanes

Advances in OLED technologies: OLED materials; device architecture for high-performance and reliable OLEDs; device physics and characterization; out-coupling enhancement technologies; device stability and degradation analysis; OLED manufacturing; OLED electrodes; OLED patterning process; white OLEDs for displays; encapsulation organic and inorganic material; encapsulation process; environment reliability; novel applications; standards and policy.

14. Touch and UI/UX Displays

Novel touch and interactive display technologies: Touch and UI/UX sensor components; integration technology; touch gesture & motion controls; interactive in feedback actuators; next-generation touch sensors and actuators; flexible and conformable touch sensors and applications; soft haptics for interactive display; soft actuators and applications; humaninteractive sensors.

15. Quantum Dots

Colloidal quantum dots for display applications: light generation; energy conversion; novel application concepts; synthesis and characterization of quantum dots; optical and electrical properties of quantum dot materials; quantum dot-based photo/electro-luminescence devices; quantum dot-based energy conversion devices and systems; novel optoelectronic applications based on quantum dots.



Invited Speakers

01. Special Session I: Next-Generation OLED TV - OLED, QLED, Printing (Invited Speakers Only)

Dr. Remi Anemian (Merck, Germany)
Dr. Mike Hack (UDC, USA)
Dr. May Su (Kateeva, USA)
Dr. Zhongyuan Wu (BOE, China)
Dr. Takeshi Yamada (Sumitomo Chemical, Japan)

02. Special Session II: Deformable Display Technologies - Flexible/Foldable/Stretchable

Prof. Joonho Bang (Tokyo Inst. of Tech., Japan)
Dr. Jianping Chen (Visionox Tech. Inc., China)
Prof. Sung-Yool Choi (KAIST, Korea)
Prof. Fabio Cicoira (Polytechnique Montreal, Canada)
Prof. MoonPyo Hong (Korea Univ., Korea)
Dr. Sung Woo Hong (KITECH, Korea)
Prof. Yongtaek Hong (Seoul Nat'l Univ., Korea)
Prof. Sung Gap Im (KAIST, Korea)
Dr. Yong-Cheol Jeong (KITECH, Korea)
Dr. Manuela Junghaehnel (Fraunhofer, Germany)
Prof. Seong Jun Kang (Kyung Hee Univ., Korea)
Prof. Dae-Hyeong Kim (Seoul Nat'l Univ., Korea)
Prof. Joon Hak Oh (Seoul Nat'l Univ., Korea)
Prof. Jang-Ung Park (Yonsei Univ., Korea)
Dr. Jacky Qiu (OTI, Canada)
Dr. Radu Reit (Ares Materials, USA)
Dr. Edsger Smith (Holst Centre/TNO, Netherlands)

03. Special Session II: Micro-LEDs

Dr. Yen-Hsiang Fang (ITRI, Taiwan)
Dr. Erdan Gu (Univ. of Strathclyde, UK)
Prof. Hongxing Jiang (Texas Tech Univ., USA)
Dr. Jae-Hyun Kim (KIMM, Korea)
Prof. Dong-Seon Lee (GIST, Korea)
Prof. Keon Jae Lee (KAIST, Korea)
Dr. Vincent Lee (Lumiode, USA)
Dr. Charles Li (PlayNitride, Taiwan)

04. Special Session IV: AR/VR/MR

Prof. Suk-Ju Kang (Sogang Univ., Korea)
Dr. Hong-Seok Lee (Samsung Electronics Co., Ltd., Korea)

05. Active-Matrix Devices

Prof. I-Chun Cheng (Nat'l Taiwan Univ., Taiwan)
Prof. Letian Dou (Purdue Univ., USA)
Prof. Norbert Fruehauf (Univ. of Stuttgart, Germany)
Prof. Mamoru Furuta (Kochi Univ. of Tech., Japan)
Dr. Gerwin H. Gelinck (Technische Universiteit Eindhoven, Netherlands)
Prof. Xiaojun Guo (Shanghai JiaoTong Univ., China)
Dr. Paul Heremans (IMEC, Belgium)

Prof. Jin Jang (Kyung Hee Univ., Korea)
Prof. Hyun Jae Kim (Yonsei Univ., Korea)
Dr. Junghwan Kim (TIT, Japan)
Dr. Tae Young Kim (Samsung Display Co., Ltd., Korea)
Prof. Mutsumi Kimura (Ryukoku Univ., Japan)
Dr. Luigi Mariucci (Purdue Univ., Italy)
Prof. Rodrigo Martins (Universidade NOVA de Lisboa, Portugal)
Dr. Masashi Miyakawa (NHK, Japan)
Dr. Mitsuru Nakata (NHK, Japan)
Prof. Takashi Noguchi (Univ. of the Ryukyus, Japan)
Prof. Yutaka Ohno (Nagoya Univ., Japan)
Prof. Sang-Hee Ko Park (KAIST, Korea)
Dr. Nobuyoshi Saito (Toshiba Memory, Japan)
Prof. Aimin Song (Univ. of Manchester, UK)
Prof. Radu Sporea (Univ. of Surrey, UK)
Prof. Shizuo Tokito (Yamagata Univ., Japan)
Prof. Yukiharu Uraoka (NAIST, Japan)
Prof. Man Wong (Hong Kong Univ. of Science and Tech., Hong Kong)

06. Applied Vision/Human Factors

Prof. Da Young Ju (Yonsei Univ., Korea)
Prof. Dae Hwan Kim (Kookmin Univ., Korea)
Prof. Youngshin Kwak (UNIST, Korea)
Prof. Ming Ronnier Luo (Zhejiang Univ., China)
Prof. Yoko Mizokami (Chiba Univ., Japan)
Dr. Ingo Rotscholl (Techno Team, Germany)
Prof. Minchen (Tommy) Wei (The Hong Kong Polytechnic Univ., Hong Kong)

07. Display Electronics and Systems

Prof. Di Geng (Chinese Academy of Sciences, China)
Dr. Yongjo Kim (Samsung Display Co., Ltd., Korea)
Prof. Yong-Sang Kim (Sungkyunkwan Univ., Korea)
Dr. Haruhiko Okumura (Toshiba Corp., Japan)
Prof. Min Zhang (Peking Univ., China)

08. Display Manufacturing and Equipment

Dr. Myung Soo Huh (Samsung Display Co., Ltd., Korea)
Dr. Changhun Hwang (OLEDON, Korea)
Dr. Chiwoo Kim (AP Systems, Korea)
Dr. Robert Visser (Applied Materials, USA)

09. Display Optics - 3D Displays

Dr. Jaewon Cha (NAVER Labs, Korea)
Dr. Boaz Jessie Jackin (NICT, Japan)
Prof. Young Ju Jeong (Sookmyung Women's Univ., Korea)
Prof. Hideki Takeya (Tsukuba Univ., Japan)
Prof. Takashi Kakue (Chiba Univ., Japan)
Prof. Takashi Kawai (Waseda Univ., Japan)
Dr. Jaehyeok Kim (LetinAR, Korea)
Dr. Joonsoo Kim (ETRI, Korea)



Prof. Takafumi Koike (Hosei Univ., Japan)
 Prof. Juan Liu (Beijing Inst. of Tech., China)
 Prof. Michal Makowski (Warsaw Univ. of Tech., Poland)
 Prof. Tomoya Nakamura (Tokyo Inst. of Tech., Japan)
 Prof. Yano Sumio (Shimane Univ., Japan)
 Prof. Shiro Suyama (Tokushima Univ., Japan)

10. Emerging Display Technologies

Prof. Takayuki Chiba (Yamagata Univ., Japan)
 Prof. Kyung Cheol Choi (KAIST, Korea)
 Prof. Malte Gather (Univ. of St Andrews, UK)
 Prof. Jaewon Jang (Kyungpook Nat'l Univ., Korea)
 Prof. Soo Young Kim (Chung-Ang Univ., Korea)
 Prof. Hyuk-Jun Kwon (DGIST, Korea)
 Prof. Biwu Ma (Florida State Univ., USA)
 Prof. Myoung Hoon Song (UNIST, Korea)
 Prof. Young Min Song (GIST, Korea)
 Prof. Jianpu Wang (Nanjing Tech Univ., China)
 Prof. Paul Yang (Sun Yat Sen Univ., China)
 Prof. Haizheng Zhong (Beijing Inst. of Tech., China)

11. Lighting Materials and Applications

Prof. Anthony H. W. Choi (Univ. of Hong Kong, Hong Kong)
 Dr. Jeungmo Kang (KTC, Korea)
 Prof. Jungho Kim (Kyung Hee Univ., Korea)
 Prof. Tae-Woo Lee (Seoul Nat'l Univ., Korea)
 Prof. Jiangang Lu (Shanghai Jiao Tong Univ., China)
 Prof. Boon S. Ooi (KAUST, Saudi Arabia)
 Prof. Jong-In Shim (Hanyang Univ., Korea)
 Prof. Heesun Yang (Hongik Univ., Korea)

12. Novel LC Technologies

Prof. Hideo Fujikake (Tohoku Univ., Japan)
 Dr. Kyungmin Lee (Air Force Research Laboratory, USA)
 Prof. Tsung-Hsien Lin (Nat'l Sun Yat Sen Univ., Taiwan)
 Dr. Koichi Miyachi (JSR, Japan)
 Dr. Hiroya Nishikawa (RIKEN, Japan)
 Prof. Toshiaki Nose (Akita Univ., Japan)
 Prof. Atsushi Shishido (Tokyo Inst. of Tech., Japan)
 Prof. Abhishek Kumar Srivastava (Hong Kong Univ. of Science and Tech., Hong Kong)

13. OLED Frontplanes

Dr. Junji Adachi (Kyulux, Japan)
 Dr. Denis Andrienko (Max Planck Inst. for Polymer Research, Germany)

Prof. Chin-Ti Chen (Academia Sinica, Taiwan)
 Prof. Jang-Joo Kim (Seoul Nat'l Univ., Korea)
 Dr. Yoonhyun Kwak (Samsung Advanced Inst. of Tech., Korea)
 Prof. Jang Hyuk Kwon (Kyung Hee Univ., Korea)
 Prof. Jaesang Lee (Seoul Nat'l Univ., Korea)
 Prof. Jun Yeob Lee (Sungkyunkwan Univ., Korea)
 Prof. Simone Lenk (TU Dresden, Germany)
 Dr. Georgios Liaptsis (CYNORA, Germany)
 Dr. Takayuki Miyamae (AIST, Japan)
 Prof. Hiroyoshi Naito (Osaka Prefecture Univ., Japan)
 Dr. Tobias Neumann (Nanomatch, Germany)
 Prof. Franky So (North Carolina State Univ., USA)
 Dr. Siebe van Mensfoort (Simbeyond B.V., Netherlands)
 Dr. Uwe Vogel (Fraunhofer Inst., Germany)
 Prof. Ken-Tsung Wong (Nat'l Taiwan Univ., Taiwan)
 Prof. Chung-Chih Wu (Nat'l Taiwan Univ., Taiwan)
 Prof. Guohua Xie (Wuhan Univ., China)

14. Touch and UI/UX Displays

Prof. Jong-Hyun Ahn (Yonsei Univ., Korea)
 Prof. Yvan Bonnassieux (Ecole Polytechnique, France)
 Prof. Su Seok Choi (POSTECH, Korea)
 Prof. Hyunhyub Ko (UNIST, Korea)
 Prof. Cheolmin Park (Yonsei Univ., Korea)
 Prof. Benjamin Tee (Nat'l Univ. of Singapore, Singapore)
 Prof. Yannan Xie (Nanjing Univ. of Posts & Telecommunications, China)
 Prof. Fang Yi (Sun Yat-Sen Univ., China)

15. Quantum Dots

Dr. Xavier Bulliard (Centre Suisse d'Electronique et de Microtechnique, Switzerland)
 Prof. Heeyeop Chae (Sungkyunkwan Univ., Korea)
 Prof. Jongmin Choi (DGIST, Korea)
 Dr. Jake Joo (DowDuPont, USA)
 Dr. Shinae Jun (Samsung Advanced Inst. of Tech., Korea)
 Dr. Nahyeong Kim (Nanosys, USA)
 Prof. Chun Che Lin (Taipei Medical Univ., Taiwan)
 Prof. Ru-Shi Liu (Nat'l Taiwan Univ., Taiwan)
 Dr. Zizhe Lu (TCL, China)
 Prof. Nuri Oh (Hanyang Univ., Korea)

As of June 12, 2019
 To be updated



Tutorials & Workshops

The tutorials are aimed to provide introductory courses for newcomers to the information display technologies. The tutorials provide audience with five basic topics: Basic and Issue of Micro LED, OLED, LTPS and Oxide Backplane: Fundamental, Process, Device, Application, Quantum Dots and Their Application, and Stretchable Material and Electronics.

| Topic | Speaker |
|---|--|
| 1. Development of Transparent MicroLED Display | Dr. Charles Li (PlayNitride, Taiwan) |
| 2. OLED Optics and Recent Advances | Prof. Chung-Chih Wu (Nat'l Taiwan Univ., Taiwan) |
| 3. LTPS and Oxide TFT for Next Generation Display | Prof. Yukiharu Uraoka (NAIST, Japan) |
| 4. Quantum Dot Chemistry, Physics, and its Applications | Dr. Jake Joo (DowDuPont, USA) |
| 5. Organic Conducting Polymers for Bioelectronics | Prof. Fabio Cicoira (Polytechnique Montreal, Canada) |

The workshops are aimed to provide in-depth analysis on fundamental and latest advances in the important display technologies. At IMID 2019, The workshops provide audience with four advanced topics: AR/MR Technologies, EL Technologies with Perovskite-Related Materials, Micro-LED : Technical trend and its manufacturing, and Efficiency-enhancing technology for OLED.

| Topic | Speaker |
|--|---|
| 1. Recent Technical Trends in AR/MR Technology | Dr. Soon-gi Park (LetinAR, Korea) |
| 2. Low Dimensional Metal Halide Perovskites and Hybrids | Prof. Biwu Ma (Florida State Univ., USA) |
| 3. ITRI's Micro LED Development Progress for Signage, Gaming and AR Applications | Dr. Yen-Hsiang Fang (ITRI, Taiwan) |
| 4. OLED Microdisplays for Smart Eyewear and Sensing | Dr. Uwe Vogel (Fraunhofer Inst., Germany) |

• Date and Time: 10:00~13:00 / 14:30~17:30, August 27 (Tue.), 2019

Display Industry Forum

The IMID Display Industry Forum is the display industry's one of the largest conference devoted to the display market. Hosted by DSCC for the 2nd consecutive year in IMID, this event takes a supply chain approach to addressing the display market outlook with executives from panel suppliers, equipment suppliers, materials manufacturers, industry analysts and financial analysts participating.

In 2019, attendees will see:

- Where industry leaders and analysts see the greatest growth and potential for out performance.
- What new developments are coming which can disrupt the display industry.
- Which companies are most likely to gain and lose market share and much more.
- Provides numerous opportunities for private company executives to interact with buy-side, sell-side, VC and private equity investors.
- Addresses the foldable display's key technology which represent the next big innovation in the display industry and market challenges the display supply chain must overcome to make foldable displays a success.

The event will deliver tremendous value for attendees through research provided by multiple analyst firms, deep insights from financial community, industry executives and extensive networking opportunities.

• Date and Time: 08:00~16:40, August 29 (Thu.), 2019



Young Leaders Conference

This year, Young Leaders Conference will be arranged for 3 Sessions.

- YLC 1: YLC Session I is open to young scientists who would like to share and discuss their research achievement. There are 2 sessions for YLC 1. They are organized with Korean speakers and Chinese speakers. 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 Leader 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. In addition, Best Presentation Award will be given right after the session.
- Date and Time: 09:30~12:30 (YLC 1) / 16:00~17:30 (YLC 2), August 29 (Thu.), 2019

Opinion Leaders Forum

"Sustainable Ecosystem of Information Display Industry"

In this session, industry-leading experts will present and share their insights to overcome the issues of oversupply and stagnant demands of the information display industry. In addition, visions to establish a sustainable ecosystem of the industry by exploring advanced technologies and killer applications of the information displays will be discussed along with the attendees.

- Date and Time: 16:00~17:30, August 29 (Thu.), 2019

Social Events

Welcome Reception

It will be good time to relax and warm up for the conference. Drinks and a light dinner will be served. Come and join this entertaining ice-breaker to expand professional networks and form partnerships.

- Date and Time: 18:30~20:00, August 28 (Wed.), 2019
- Place: 3F, Lobby, HICO

Special Tour

Our organizing committee will provide a special tour. You can see the night view of Gyeongju.

- Date and Time: 19:00~21:30, August 28 (Wed.), 2019
- Course: HICO - Hwangridan-gil street - Gyeongju Donggung Palace and Wolji Pond - Hotels

Hwangridan-gil

Hwangridan-gil is a place which located in Gyeongju city. Nowadays, It has been a famous Gyeongju tour course on Social Network Service (SNS). The alley in Hwangnam-dong, Poseok-ro, Gyeongju, North Gyeongju Province, and Hwangnam-dong is called 'Hwangridan-gil'. This place has become an exotic alley, with opening of sensuous cafes, restaurants, and shops. Many of the famous shops in Hwangridan-gil have been open for less than a year. The alleyways of Hwangridan-gil are still being transformed. Walking along the Hwangridan-gil, people feel like they're looking for a treasure. Hwangridan-gil is located nearby Gyeongju's historical sites such as Daeneungwon and Cheonmachong. Also, there are many han-ok (traditional Korean houses) next to the sites, which bring Han-ok Village to your mind. Hwangridan-gil is a jewel-like place where Korean beauty and exotic mood coexist.

Gyeongju Donggung Palace and Wolji Pond

Gyeongju Donggung Palace and Wolji Pond were the secondary palace site which was used for the palace of the Crown Prince along with other subsidiary buildings. It was also a banquet site for important national event and important visitors. After the fall of Silla, the site was abandoned and forgotten. The pond was referred to as "Anapji" during the Goryeo and Joseon period. In the 1980s, pottery fragment with letters "Wolji" (a pond that reflects the moon) carved onto it was found, revealing the true name of the pond. After the discovery, the site was renamed to the current Donggung Palace and Wolji Pond.



Banquet

If you would like to experience a special night in Korea, you are cordially invited to conference banquet. Great food will be served along with fantastic performance. This will be great opportunities to relax with wonderful entertainment while also giving you a great with others.

- Date and Time: 19:00~20:30, August 29 (Thu.), 2019
- Place: 1F, Grandballroom, Hilton Gyeongju

Registration for Participation

All conference participants are strongly recommended to register online at the official Website. We would like to inform you that IMiD 2019 registrants will be KIDS members automatically and can register as the KIDS member in IMiD 2019. All the participants intending to attend the conference should register separately.

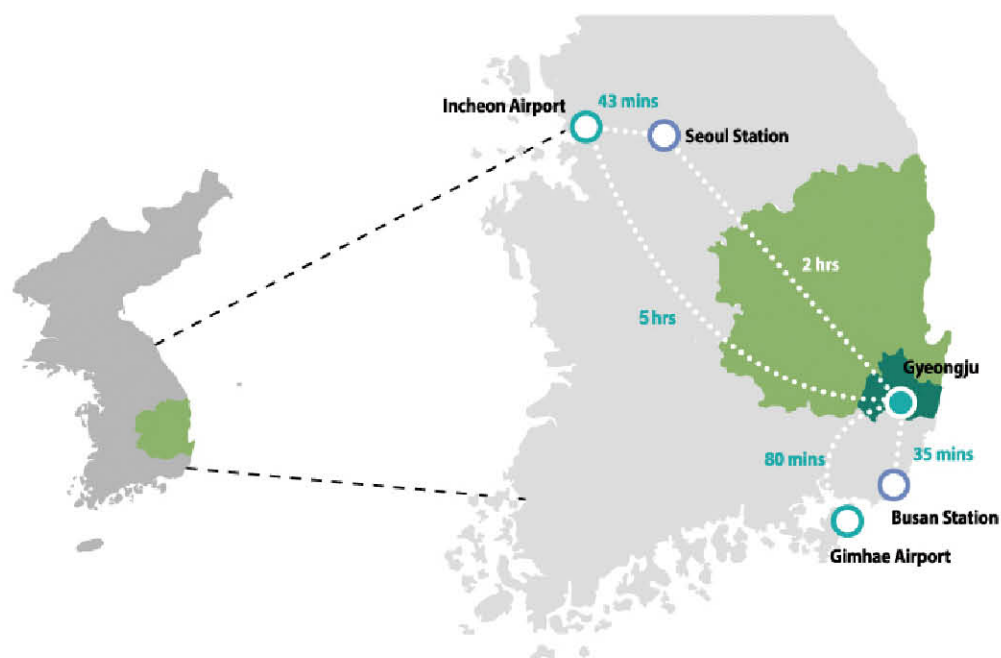
- Author Registration: June 24 (Mon.) ~ July 31 (Wed.) (* All presenters should register for the conference.)
- Pre-Registration: June 17 (Mon.) ~ August 10 (Sat.)

| IMiD 2019 Registration Type | | | Pre | On-Site |
|----------------------------------|-------------------|-------------------|---------|-----------|
| Conference | Regular | KIDS / SID Member | USD 550 | USD 650 |
| | | Non-Member | USD 650 | USD 750 |
| | Student | KIDS / SID Member | USD 150 | USD 200 |
| | | Non-Member | USD 170 | USD 220 |
| Special Package I (C+T/W) | Regular | KIDS / SID Member | USD 650 | USD 800 |
| | | Non-Member | USD 750 | USD 900 |
| | Student | KIDS / SID Member | USD 180 | USD 240 |
| | | Non-Member | USD 200 | USD 260 |
| Special Package II (C+I) | Regular | KIDS / SID Member | USD 800 | USD 950 |
| | | Non-Member | USD 900 | USD 1,050 |
| | Student | KIDS / SID Member | USD 230 | USD 330 |
| | | Non-Member | USD 250 | USD 350 |
| Special Package III (C+T/W+I) | Regular | KIDS / SID Member | USD 850 | USD 1,000 |
| | | Non-Member | USD 950 | USD 1,100 |
| | Student | KIDS / SID Member | USD 260 | USD 360 |
| | | Non-Member | USD 280 | USD 380 |
| Tutorials & Workshops | Regular | | USD 200 | USD 250 |
| | Student | | USD 50 | USD 70 |
| Display Industry Forum | Regular | | USD 350 | USD 400 |
| | Student | | USD 180 | USD 230 |
| Additional Purchase | Banquet | | USD 60 | USD 80 |
| | Proceedings (USB) | | USD 100 | |



Transportation

Situated in southeastern Korea, Gyeongju is accessible by two major international airports. There will be shuttle buses operation from Singyeongju Station to HICO (Venue).



| | |
|---------|---|
| Route 1 | Incheon Int'l Airport → Seoul Station → Singyeongju Station (By KTX) (*You can take SRT from Suseo Station to Singyeongju Station) |
| Route 2 | Incheon Int'l Airport → Gyeongju Intercity Bus Terminal (By Airport Limousine) |
| Route 3 | Gimhae Int'l Airport → Gyeongju Express Bus Terminal (By Airport Limousine) |

Hotels Reservation

Following hotel rooms are available at special rates during IMID 2019. Should you wish to make reservation for your accommodation, please refer to IMID 2019 website. Rooms are on a first come, first serve basis.

(Deadline of Reservation : July 26 (Fri.) 2019)

Hilton Gyeongju Hotel



| | | | |
|-----------|--|--|----------------------|
| Address | 484-7, Bomun-ro, Gyeongju, 38117, South Korea (3min. from the HICO by walk) | | |
| Contact | +82-54-745-7788 | | |
| Homepage | www3.hilton.com | | |
| Room Type | Type | Room Rate (KRW) | |
| | | Weekdays (26 Mon.~29 Thu.) | Weekend (30 Fri.) |
| | Single or Twin (Breakfast 1 Person included) | 230,000 | 280,000 |
| | Additional Breakfast Buffet | 38,000 Per Person Lakeside(06:30~10:00) | |

* 10% service charge & 10% tax are included in the above rates.
* Free Wireless Internet for 24 hours
* Complimentary use of Gymnasium



Benikea Swiss Rosen Hotel



| | | | |
|------------------------------------|--|---------------------------------------|------------------------------|
| Address | 465-37, Bomun-ro, Gyeongju-si, Gyeongbuk, South Korea (5min. from the HICO by walk) | | |
| Contact | +82-54-748-4848 | | |
| Homepage | www.swissrosen.com | | |
| Room Type | Type | Room Rate (KRW) | |
| | | Weekdays (26 Mon.~29 Thu.) | Weekend (30 Fri.) |
| | Double (1 Person) | 80,000 | 90,000 |
| | Twin (2 People) | 85,000 | 95,000 |
| | Ondol (3 People) | 85,000 | 95,000 |
| | Suite (4 People) | 150,000 | 180,000 |
| Additional Breakfast Buffet | | 10,000 Per Person | |

* Above rates are inclusive of 10% VAT.

* Extra charge above 2 people is KRW 15,000 per person per night.

* All rooms have Ondol floor which is Korean floor type. You have to take off your shoes for using room.

Blue One Resort



| | | | |
|------------------|---|--|------------------------------|
| Address | 391 Bobul-ro Cheonkun-dong Gyeongju-si, Gyeongsangbuk-do, South Korea (30min. from the HICO by walk) | | |
| Contact | +82-54-778-9016 | | |
| Homepage | www.Blueone.com | | |
| Room Type | Type | Room Rate (KRW) | |
| | | Weekdays (26 Mon.~29 Thu.) | Weekend (30 Fri.) |
| | Family Condo | 150,000 | 240,000 |
| | Private Condo | 200,000 | 320,000 |
| | Additional Breakfast Buffet | 1) Korean-style 11,000 2) Buffet 20,000 * Only available on Saturday and Sunday (All prices include 10% tax) * In order to dine at the restaurant, you must purchase a meal ticket in advance after checking in. | |

*The deadline for registration in advance is May 31.

*The room rates listed above include 10% tax.

*The rates are for 1 night and do not include meals.



iMiD 2019

Special Exhibition

The IMID 2019 special exhibition organized by The Korean Information Display Society (KIDS), Korea Display Industry Association (KDIA) is held at HICO, Gyeongju, Korea from August 28 to 30 in 2019. The exhibition will open during IMID 2019 conference, which is one of the world largest conferences with participants over 2,000. You will be able to promote technology and product of your esteemed company to the display-related enterprises and participants through this exciting exhibition.

Exhibition Information

- Exhibition Items -

- 1) Materials and components related to electronic displays
(Glass, Color Filter, BLU, polarizer film, Drive IC, OLED, LCD, Touch panel, etc.)
- 2) Instrument for electronic displays
(Measuring instruments, test system, equipment for manufacturing electronic parts and components, simulator, etc.)

- Application Deadline -

- Regular Application : After July 1, 2019
(* Applications can be rejected if all spaces have been reserved out.)

- How to Apply -

- 1) Fill in the application form
- 2) Send the application with business license by Email (imid@k-ids.or.kr) or FAX (+82-42-472-7459)
- 3) Receive the invoice from the IMID 2019 secretariat
- 4) Pay the deposit (50% of total amount)
- 5) Pay the balance: August 1, 2019
(* It must be paid by August 1, 2019.)

- Exhibition Fee -

| 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) |
| Regular (From July 1, 2019) | \$4,800 | \$1,650 | \$7,200 | \$2,200 |

- Benefits for Exhibitors -

- 1) Conference Free Registration or 2 Display Industry Forum (DIF) Free Registration per 1 booth.
* Please check one of the two on application. DIF is first-come, first-served.
- 2) Exhibitor Company will get introduced in the special exhibition directory book.
- 3) Web banner linked with the official website of IMID 2019.
- 4) Exhibition Entry Fee 10% Discount for the company participated in IMID 2018.
- 5) 2 Free Coffee Coupons for 1 booth per 1 day.
- 6) Unlimited Free Registration for Your Exhibition Booth Visitors.
* Secretariat will send the application form soon.



List of Exhibitors

(as of June 12, 2019)





EXPLORING / EXPANDING / ENRICHING

iMiD 2019

The 19th International Meeting on Information Display

August 27 - 30, 2019 / HICO, Gyeongju, Korea

Conference & Exhibition