Keynote Speakers

Han Haitjema
Professor
- KU Leuven (Belgium)
- Department of Mechanical Engineering

Title
Metrologic characteristics and uncertainty evaluation of surface texture measurements

Keynote-1
Sep. 18 (Mon.) / 09:00–09:30
Room E5

Sang-Yoon LEE
CEO
- INTEKPLUS (South Korea)

Title
Industrial use cases of 3D optical metrology

Keynote-2
Sep. 18 (Mon.) / 09:30–10:00
Room E5

Eberhard Manske
Professor
- Technische Universität Ilmenau (Germany)
- Institute of Process Measurement and Sensor Technology

Title
Nanopositioning and nanomeasuring machines with a direct link to the unit of time

Keynote-3
Sep. 18 (Mon.) / 10:00–10:30
Room E5

Kaoru Minoshima
Professor
- University of Electro-Communications (Japan)
- Department of Engineering Science

Title
Precision measurements beyond frequency metrology using versatile control of optical waves with optical frequency comb

Keynote-4
Sep. 19 (Tue.) / 08:30–09:00
Room E5

Laura Sinclair
Doctor
- National Institute of Standards and Technology (USA)
- Fiber Sources and Applications Group

Title
Pushing the boundaries of ranging and time transfer through precise control of optical frequency combs

Keynote-5
Sep. 19 (Tue.) / 09:00–09:30
Room E5

Liandong Yu
Professor
- China University of Petroleum (UPC) (China)
- College of Control Science and Engineering

Title
Microfluidic sensor on the early diagnostic of cancer diseases

Keynote-6
Sep. 19 (Tue.) / 09:30–10:00
Room E5

Peter de Groot
Doctor
- Chief Scientist, Zygo Corporation (USA)

Title
Interferometric metrology solutions for digital optical immersive displays

Keynote-7
Sep. 19 (Tue.) / 10:00–10:30
Room E5
Invited Speakers

**Florian Pollinger**
*Doctor*
- Physikalisch-Technische Bundesanstalt (Germany)

**Title**
Multi-wavelength interferometry for geodesy and large volume metrology

**Date**
Sep. 18 (Mon.) / 10:45–11:10
Room E2

**Satoru Takahashi**
*Professor*
- The University of Tokyo (Japan)

**Title**
Super resolution optical measurement for functional microstructures beyond the diffraction limit

**Date**
Sep. 19 (Tue.) / 10:45–11:10
Room E3

**Liang-Chia Chen**
*Professor*
- National Taiwan University (Taiwan)

**Title**
Current advances and challenges in optical metrology for advanced semiconductor packaging

**Date**
Sep. 18 (Mon.) / 10:45–11:10
Room E1

**Masato Aketagawa**
*Professor*
- Nagaoka University of Technology (Japan)

**Title**
Picometer displacement/length measurement using regular crystalline lattice and super-resolution interferometry

**Date**
Sep. 18 (Mon.) / 11:10–11:35
Room E2

**Guanhao Wu**
*Professor*
- Tsinghua University (China)

**Title**
Dual-comb-based distance and multi-degree-of-freedom measurements

**Date**
Sep. 18 (Mon.) / 13:50–14:15
Room E2

**Daewook Kim**
*Professor*
- University of Arizona (USA)

**Title**
Deflectometry and Interferometry

**Date**
Sep. 18 (Mon.) / 11:10–11:35
Room E3

**Sang-Joon Cho**
*Vice President*
- Park Systems (South Korea)

**Title**
Automated Nano-Metrological AFM with Intelligent Data Preparation

**Date**
Sep. 19 (Tue.) / 14:00–14:25
Room E4

**Chao Zuo**
*Professor*
- Nanjing University of Science and Technology (China)

**Title**
Learning based fringe projection profilometry

**Date**
Sep. 19 (Tue.) / 14:00–14:25
Room E3
Invited Speakers

Kye-Sung Lee
Doctor
- Korea Basic Science Institute (South Korea)
Title
Tissue culture monitoring using line-field fluorescence microscopy combined with optical coherence microscopy
C-4
Sep. 19 (Tue.) / 11:10–11:35
Room E3

Byung-Seon Chun
Doctor
- Nanoscope Systems, Inc. (South Korea)
Title
Thermoreflectance microscopy for steady-state and transient thermal analysis of electronic devices in microscopic scale
G-3
Sep. 18 (Mon.) / 16:25–16:50
Room E3

Chi Ho Ng
Vice President of Technology
- LMI Technologies (Canada)
Title
Simplified solutions in an increasingly complicated market
A-4
Sep. 19 (Tue.) / 10:45–11:10
Room E1

ChaBum Lee
Professor
- Texas A&M University (USA)
Title
Wafer-level metrology and inspection for advanced electronics packaging
A-3
Sep. 18 (Mon.) / 16:25–16:50
Room E1

Matteo Bosi
President
- Marposs Korea (Italy)
Title
A capacitor coupling-based instrument to assess in a more reliable way the quality of insulation in mass-produced electric stators and motors
B-6
Sep. 19 (Tue.) / 15:40–16:05
Room E2

Youjian Song
Professor
- Tianjin University (China)
Title
Time-of-flight measurement of micro-structures based on electronically controlled optical sampling
B-2
Sep. 18 (Mon.) / 14:15–14:40
Room E2

Byoung-Ho Lee
Doctor
- Hitachi High-tech (Japan)
Title
MI (Metrology & Inspection): essential technology for future devices
C-3
Sep. 18 (Mon.) / 16:50–17:15
Room E3

Taejoong Kim
Doctor
- Samsung Electronics (South Korea)
Title
Massive overlay metrology solution by realizing imaging Mueller matrix spectroscopic ellipsometry
C-1
Sep. 18 (Mon.) / 10:45–11:10
Room E3
Dong-Wook Lee
Doctor
• Advanced Materials Research Center, Technology Innovation Institute (UAE)

Title
Deep learning-based stress intensity factors analysis of bi-material interface crack from photoelastic images

E-2
Sep. 19 (Tue.) / 10:45-11:10
Room E5

Wanxin Sun
Doctor
• Bruker Singapore Pte Ltd. (Singapore)

Title
Nano scale physical and chemical property characterization by scanning probe techniques

D-3
Sep. 18 (Mon.) / 16:25-16:50
Room E4

In-Ho Lee
Doctor
• Korea Research Institute of Standards and Science (South Korea)

Title
Designing and exploring super functional materials and devices using evolutionary and deep learning methods

E-4
Sep. 19 (Tue.) / 15:40-16:05
Room E6

Yang Lu
Professor
• China University of Petroleum (UPC) (China)

Title
Ultrafast holographic microscopy based on fs laser for wavefront inspection and biological applications

B-4
Sep. 19 (Tue.) / 10:45-11:10
Room E2

Rongke Gao
Professor
• China University of Petroleum (UPC) (China)

Title
The SERS measurements on micro-nano interface substrate integrated microfluidic biosensor

C-5
Sep. 19 (Tue.) / 14:25-14:50
Room E3

Ruitao Yang
Professor
• Harbin Institute of Technology (China)

Title
Real-time suppression of random phase drift for optical frequency comb ranging with high-frequency intermode beats

B-4
Sep. 19 (Tue.) / 11:10-11:35
Room E2

Kai Ni
Professor
• Tsinghua University (China)

Title
Dual-comb spectroscopy and ranging based on mechanical sharing mode-locked fiber lasers

B-3
Sep. 18 (Mon.) / 16:50-17:15
Room E2

Akifumi Asahara
Professor
• University of Electro-Communications (Japan)

Title
Dual-comb spectroscopy extended for spatiotemporal measurement applications using OAM light

B-3
Sep. 18 (Mon.) / 16:25-16:50
Room E2
Invited Speakers

Takashi Kato
Professor
University of Electro-Communications (Japan)
Title
Optical phased array with phase-controlled optical frequency comb
B-5
Sep. 19 (Tue.) / 14:00–14:25
Room E2

Jiao Jiannan
Professor
Shenzhen University (China)
Title
Generation of non-divergent surface third-harmonics with a two-photon-polymerized phase-type diffractive micro axicon
B-6
Sep. 19 (Tue.) / 14:25–14:50
Room E2

Jindong Tian
Professor
Shenzhen University (China)
Title
Quantitative phase imaging for dynamic processes
C-2
Sep. 18 (Mon.) / 14:15–14:40
Room E3

Huitaek Yun
Professor
Korea Advanced Institute of Science and Technology (South Korea)
Title
Virtual reality based human-machine interface for human-AI collaboration
D-1
Sep. 18 (Mon.) / 16:25–16:50
Room E5

Jiyeon Choi
Doctor
Korea Institute of Machinery & Materials (South Korea)
Title
Ultrafast laser processing for advanced packaging of glass-based devices
D-1
Sep. 18 (Mon.) / 10:45–11:10
Room E4

Sangbaek Park
Professor
Chungnam National University (South Korea)
Title
Laser-patterned energy storage devices integrated with wearable electronics
D-2
Sep. 18 (Mon.) / 13:50–14:15
Room E4

Hyung Cheoul Shim
Doctor
Korea Institute of Machinery & Materials (South Korea)
Title
Advanced characterization of the active materials for lithium ion batteries using TEM techniques to promote mechanism understanding
D-2
Sep. 18 (Mon.) / 14:15–14:40
Room E4

Soongeun Kwon
Doctor
Korea Institute of Machinery & Materials (South Korea)
Title
Laser processing of graphene materials for high-performance energy storage devices
D-1
Sep. 18 (Mon.) / 11:10–11:35
Room E4
**In Sung Kang**  
**Doctor**  
- KOH YOUNG TECHNOLOGY, INC.  
  (South Korea)  

*Title*  
Optical 3D inspection technologies  

*Date & Time*  
Sep. 18 (Mon.) / 13:50–14:15  
Room E1

**Ki Joon Heo**  
**Professor**  
- Chonnam National University (South Korea)  

*Title*  
Real-time monitoring of airborne microbial colony forming unit based on on-chip cell imaging platform with continuous aerosol-to-hydrosol transfer  

*Date & Time*  
Sep. 19 (Tue.) / 15:40–16:05  
Room E3

**Sungho Suh**  
**Doctor**  
- Deutsches Forschungszentrum für Künstliche Intelligenz (Germany)  

*Title*  
Remaining useful life prediction of lithium-ion batteries using spatio-temporal transformers  

*Date & Time*  
Sep. 18 (Mon.) / 16:50–17:15  
Room E1

**Martin Tangari Larrategui**  
**Doctor**  
- University of Arizona (USA)  

*Title*  
Advancements in non-null surface figure measurement interferometry  

*Date & Time*  
Sep. 18 (Mon.) / 13:50–14:15  
Room E3

**Ilkoo Kim**  
**Doctor**  
- Gauss Labs (USA)  

*Title*  
Universal denoising method for boosting the throughput of semiconductor image metrology  

*Date & Time*  
Sep. 19 (Tue.) / 14:00–14:25  
Room E5