ITC 2026

Preliminary Program

ITC 2026

20th Anniversary

Shaping Better Tomorrows
with Ubiquitous TFTs

28-31 March 2026 | Xiamen, China

28 March 2026, Saturday (Day 0)

Morning – Afternoon	**Registration** Hotel Lobby
Morning	**TFT Foundry Visit 1** Assembly Point: TBC
Afternoon	**TFT Foundry Visit 2** Assembly Point: TBC
	TFT Foundry Visit 3 Assembly Point: TBC

29 March 2026, Sunday (Day 1)

8:45-10:00	**ITC 2026 Opening Remarks & Plenary Talks** Room 1	
8:45-9:00	**Opening Remarks** Chen Jiang, ITC 2026 General Chair	
9:00-9:30	**Plenary Talk 1** Feng Qin, Tianma Microelectronics, China	
9:30-10:00	**Plenary Talk 2** Manish Chhowalla, University of Cambridge, UK	
Coffee Break		
10:10-11:50	**Session 1: Active Matrix Devices** Room 1	**Session 2: Integrated Circuit & Systems** Room 2
10:10-10:30	**Post-LTPO Display Backplane Technology: From LTPS to HMO (Invited)** Hyun Jae Kim, Yonsei University, Korea	**Flexible Imager With Low-Temperature Polysilicon Thin-Film Transistor Backplane (Invited)** Tomoyuki Yokota, University of Tokyo, Japan
10:30-10:50	**Device-Process-Manufacturing Co-optimization for OLED: Minimum Experiments, Fastest Yield Ramp-Up (Invited)** Nan Liu, BOE, China	**Computational Pixel Sensor and its Implementation in X-ray Imaging (Invited)** Kai Wang, Sun Yat-Sen University, China

10:50-11:10	**Asymmetric-Double-Gate (ADG) Oxide TFTs with Both Steep and Gradual SS for Mobile AMOLED Displays (Invited)** Shengdong Zhang, Peking University, China	**Flexible IGZO based TFTs on sustainable and unconventional substrates (Invited)** Niko Münzenriede, Free University of Bozen-Bolzano, Italy
11:10-11:30	**High Mobility Metal Oxide TFTs by Atomic Layer Deposition Fabrication for AMOLED Display** Guowen Yan, Visionox, China	**Active-matrix Digital Microfluidics for High-throughput and Precise Droplet Manipulation (Invited)** Jun Yu, Shandong University, China
11:30-11:50	**Crystallization-Mediated High-Performance Industry-Compatible ALD-IGO/Sputter-IGZO Dual-Channel Top-Gate TFT** LEE SO EUN, Yonsei University, Korea	**An Active-Matrix Neurostimulator Array for High-Density Stimulation of DRG Neurons** Haobin Zhou, Tsinghua University, China
Lunch Buffet		
12:50-13:20	**Plenary Talk** Room 1	
12:50-13:20	**Plenary Talk 3** Arokia Nathan, University of Cambridge, UK	
13:30-14:50	**Session 3: Device Physics & Reliability 1** Room 1	**Session 4: Flexible Electronics 1** Room 2
13:30-13:50	**DFT analysis of Defects and the hydrogen states in IGZO (Invited)** John Robertson, University of Cambridge, UK	**Flexible electronics, oxide TFTs, ionizing radiation detectors, energy management, security platforms (Invited)** Pedro Barquinha, NOVA University Lisbon, Portugal
13:50-14:10	**High-mobility Polycrystalline Indium Oxide Thin-Film Transistor (Invited)** Mamoru Furuta, Kochi University of Technology, Japan	**On-skin semiconductor devices by stretchable electronic materials (Invited)** Naoji Matsuhisa, Tokyo University, Japan

14:10-14:30	**TBD (Invited)** Chuan Liu, Sun Yat-sen University, China	**R2R gravure and flexography printed SWCNT-based TFT-AM** Junfeng Sun, Huazhong University of science and technology, China
14:30-14:50	**Tunable Work Function in Pt–Al Solid Solutions: A Co-Sputtered Electrode Strategy for High-Performance IGZO Devices** Krittin AUEWATTANAPUN, Nara Institute of Science and Technology (NAIST) & Kasetsart University, Japan	**Monolithic Integration of Stretchable Inorganic Transistor Circuits via Molecularly Designed Elastomers** Seung-Han Kang, Chung-Ang University, Korea
Coffee Break		
15:00-16:40	**Session 5: Device Physics & Reliability 2** Room 1	**Session 6: Modeling & Simulation** Room 2
15:00-15:20	**Critical Metal Free Oxide Semiconductor for Thin Film Transistors (Invited)** Ravindra Naik Bukke, IIT, India	**TBD (Invited)** Yvan Bonnassieux, Ecole Polytechnique, France
15:20-15:40	**Technologies for Enhancing the Thermal Stability of a Metal-Oxide Thin-Film Transistor (Invited)** Man Wong, Hong Kong University of Science and Technology, Hong Kong, China	**Dynamic Modeling of Organic Photo-Transistors (Invited)** Antonio Valletta, Italian National Research Council, Italy
15:40-16:00	**Cryogenic Low-Frequency Noise Characteristics of Oxide Thin Film Transistors** Yayi Chen, Guangdong University of Technology, China	**TBD (Invited)** Benjamin Iñiguez Nicolau, Universitat Rovira i Virgili, Spain
16:00-16:20	**Influence of Hydrogen on Channel-shortening in Polycrystalline Indium Oxide Thin-Film Transistor** Xiaoqian Wang, Kochi University of Technology, Japan	**Hybrid Physics and Residual Neural Network Modeling of Fully Additive Printed Flexible Transistors** Ao Zhang, Nanyang Technological University, Singapore
16:20-16:40	**Transport Enhancement of ZnSnO Thin-Film-Transistors via Spatially Controlled Channel Crystallization** Dayul Nam, Chung-Ang University, Korea	**Organic Semiconductor Charge Transport and Intelligent Perception (Invited)** Yun Li, Nanjing University, China

Coffee Break		
16:50-17:50	**Session 7: BEOL & Memory 1** Room 1	**Session 8: Perovskite & Novel Materials** Room 2
16:50-17:10	**Exploring the potential of amorphous oxide-semiconductor transistors for emerging memory devices (Invited)** Kasidit Toprasertpong, University of Tokyo, Japan	**Perovskite based flat panel image sensors for X-ray imaging (Invited)** Hang Zhou, Shenzhen Graduate School, Peking University, China
17:10-17:30	**Oxide Semiconductors for Future DRAM Application and Monolithic 3D Integration (Invited)** Jianshi Tang, Tsinghua University, China	**Tin halide perovskites for high-performance p-channel thin-film transistors and circuits** Huihui Zhu, University of Electronic Science and Technology of China, China
17:30-17:50	**High Performance oxide semiconductor devices for logic/memory applications (Invited)** Kaizhen Han, Huazhong University of science and technology, China	**Vapour-deposited high-performance tin halide perovskite transistors** Youjin Reo, Pohang University of Science and Technology, Korea
18:30-20:30	**Welcome Reception** **(French Restaurant & Infinity Swimming Pool)**	

30 March 2026, Monday (Day 2)

9:00-10:30	**Plenary Talks** Room 1	
9:00-9:30	**Plenary Talk 1** Yong-Young Noh, Pohang University of Science and Technology, Korea	
9:30-10:00	**Plenary Talk 2** Jianhua Zhang, Shanghai University, China	
Coffee Break		
10:10-11:30	**Session 9: BEOL & Memory 2** Room 1	**Session 10: Flexible Electronics 2** Room 2
10:10-10:30	**Asymmetric Read Transistor Configuration Enabled Low-Power 2T0C CAA-AOSFET Crossbar Array (Invited)** Shaohao Wang, Fuzhou University, China	**Oxide Semiconductors for next-generation ultralow-power sustainable electronics (Invited)** Juan Paolo S. Bermundo, Nara Institute of Science and Technology, Japan
10:30-10:50	**2T0C DRAM Cells Based on High Mobility, Self-Aligned Coplanar C-InGaO TFTs Exhibiting Long Retention (>8 ks)** Taebin Lim, Kyung Hee University, Korea	**Electrolyte-gated semiconductors for bio-interface (Invited)** Sungjun Park, Ajou university, Korea
10:50-11:10	**Simulation of Ferroelectric Multimodal Transistor (FMMT) Devices: Achieving Non-Volatile Memory and Multi-Logic for Neuromorphic Computing** Chuanjun Wu, Nara Institute of Science and Technology, Japan	**Flexible Active-Matrix Sensor Arrays based on Oxide Thin-Film Transistors (Invited)** Bowen Zhu, Westlake University, China

11:10-11:30	**Microstructure control over low−In oxide semiconductors to obtain synchronous optimization of their TFT mobility and stability (Invited)** Lingyan Liang, Ningbo Institute of Materials Technology and Engineering, CAS, China	**Bio-based Recyclable vitrimer as substrate for InGaZnO TFTs** Fahimeh Masoumi, Free University of Bozen-Bolzano, Italy
Lunch Buffet		
13:10-14:50	**Session 11: p-type Oxide TFT** Room 1	**Session 12: Organic TFT 1** Room 2
13:10-13:30	**Dopant control of CuI for high performance transparent p-type electronics with ambient stability (Invited)** Myung-Gil Kim, Sungkyunkwan University, Korea	**Organic Neuromorphic Platforms for Soft Robotics (Invited)** Mattia Scagliotti, Institute for Microelectronics and Microsystems, Italy
13:30-13:50	**Fully Integrated all Oxide CMOS Inverters for Low Power Flexible Electronics (Invited)** Kham Man Niang, University of Cambridge, UK	**Precision Noise Modeling in Nanotransistor Sensors: A Unified Framework for Performance Optimization (Invited)** Noorhayati Binti Idros, University of Malaya, Malaysia
13:50-14:10	**TBD (Invited)** Lei Liao, Hunan University, China	**Charge transport physics of organic field-effect transistors (Invited)** Henning Sirringhaus, University of Cambridge, UK
14:10-14:30	**Developing high-performance p-type oxide TFTs and CMOS integrated circuits** Ao Liu, University of Electronic Science and Technology of China, China	**Ultra-soft and skin-attachable electronics for future wearable applications (Invited)** Sunghoon Lee, Institute of Physical and Chemical Research, Japan
14:30-14:50	**Contact-Metal dependent electrical characteristics of p-type SnO TFTs: implications for complementary integrated circuits** Xiao Chen, University of Cambridge, UK	**Organic Semiconductor Single-Crystal Transistors for Electromagnetic Radiation Detection** Fangxu Yang, Tianjin University, China
Coffee Break		

15:00-16:40	**Session 13: TFT Process** Room 1	**Session 14: Emerging Device & Application 1** Room 2
15:00-15:20	**Atomic layer deposition of amorphous and polycrystalline oxide semiconductor nanosheet channels (Invited)** Takanori Takahashi, Nara Institute of Science and Technology, Japan	**New design philosophy and fabrication strategy of Ga_2O_3 transistors (Invited)** Man Hoi Wong, Hong Kong University of Science and Technology, Hong Kong, China
15:20-15:40	**Advanced process for tin oxide thin-film transistors (Invited)** Christophe V. Avis, KyungHee University, Korea	**Multimodal transistor applications to low refresh rate display (Invited)** Radu Sporea, University of Surrey, UK
15:40-16:00	**TBD (Invited)** Kuanchang Chang, Peking University, China	**BEOL-Compatible Amorphous Oxide Semiconductor High-Voltage Transistors (Invited)** Xuefei Li, Huazhong University of Science and Technology, China
16:00-16:20	**TBD (Invited)** Xinwei Wang, Shenzhen Graduate School, Peking University, China	**Design of Synaptic Transistors for Complex Environments and Functions (Invited)** Yao Ni, Guangdong University of Technology, China
16:20-16:40	**Solution-Processed Oxide TFTs** Wangying Xu, Jimei University, China	**Flexible thin-film transistors for 3D circuits and neuromorphic applications (Invited)** Min Zhang, The Chinese University of Hong Kong, China
16:50-17:50	**Poster Presentation** Room 3	
18:30-20:30	**Banquet & Best Oral/Poster Presentation Award Ceremony** **(Seven Beer Bar)**	

31 March 2026, Tuesday (Day 3)

9:00-10:20	**Session 15: Heterogeneous Integration** Room 1	**Session 16: Organic TFT 2** Room 2
9:00-9:20	**Temporary Bonding and Precision Thinning of Large-Size Wafers (Invited)** Qing Wan, Yongjiang Laboratory (Y-LAB), China	**Toward Green Electronics: Organic Thin-Film Transistors on Biodegradable Substrates (Invited)** Matteo Rapisarda, Institute for Microelectronics and Microsystems, Italy
9:20-9:40	**Hybrid Integration of IAZO/Si-based 2T0C DRAM with RRAM on CMOS Platform Enabling Bit-reconfigurable Mask for Multitask In-memory Computing (Invited)** Lin Bao, Beijing University of Posts and Telecommunications, China	**Organic on oxide TFT circuits for robust logic operation in flexible large area circuits (Invited)** Simon Ogier, Smartkem Ltd., UK
9:40-10:00	**M3D Complementary Logic Based on High-Performance p-SiNWs FET and n-IGZO FET Stacking (Invited)** Linwei Yu, Nanjing University, China	**Highly stable organic semiconductors and circuits (Invited)** Liqiang Li, Tianjin University, China
10:00-10:20	**$Hf_xZr_{1-x}O_2$-based Ferroelectric Field-Effect Transistor with Oxide Thin Film Semiconductor for Memory and Sensor Devices (Invited)** Xiuyan Li, Shanghai Jiao Tong University, China	**Doping for Better Organic Transistors (Invited)** Yuanyuan Hu, Hunan University, China
Coffee Break		
10:30-11:30	**Session 17: TFT Sensor** Room 1	**Session 18: Emerging Device & Application 2** Room 2
10:30-10:50	**Organic Printed Tissue-Electronic Platforms for Monitoring in vivo and in vitro Human Tissue Properties (Invited)** Sungjune Jung, Pohang University of Science and Technology, Korea	**A Novel Gap-Type Thin-Film Transistor for Multispectral Detection from Infrared to X-rays (Invited)** Chih-Chung Tu, National Yang Ming Chiao Tung University

10:50-11:10	**Highly Sensitive pH Sensors based on Double-Gate 3D-ITZO Thin-Film Transistors** Zhong Wei, Guangdong University of Technology, China	**High-Performance InGaZnO Power Transistors Achieved by Structural Optimization under Low Thermal Budget** Wenxing Huo, Tianjin University, China
11:10-11:30	**Modulation of mixed ionic-electronic transport in OECTs and their sensing applications** Lizhen Huang, Soochow University, China	**Dual-gate Oxide TFTs for Wearable Tactile Sensor Applications (Invited)** Rongsheng Chen, South China University of Technology, China
Closing Remarks and Announcement for ITC 2027		
11:40-12:00	Chen Jiang Tsinghua University, China & Matteo Rapisarda Institute for Microelectronics and Microsystems (IMM), Italy	
Lunch Buffet		

POSTER PROGRAM

p1 Sol–Gel–Derived Crystalline Metal Oxide Thin Films via UV-Laser Writing Process Seokhyeon Baek, Ajou University
p2 A Threshold-Voltage Compensation Circuit for Organic Thin-Film Transistor Active-Matrix Neurostimulation System Shikai Wang, Department of Electronic Engineering, Tsinghua University
p3 An IGZO TFT-Based Large-Area Flexible Sensor Array for High-Density Tactile Localization Sensing Yongxiang Zeng, Dept. of Electronic Engineering Tsinghua University
p4 Flexible and fully integrated 4-bit SAR ADC using OTFTs Yaojie Zheng, Department of Electronic Engineering, Tsinghua University
p5 Gain-Tunable Operational Amplifier for Multiple Purposes using Organic Thin-Film Transistors Ran Wang, Tsinghua University
p6 In-pixel droplet position sensing for TFT-based AM-DMF Shengzhe Jiang, Shandong University
p7 Module-level characterization and performance evaluation of flexible SRAM TFT Circuits Anzhi Yan, Tsinghua University
p8 Solution-processed oxide semiconductors-based enhancement-mode thin-film transistor circuits for artificial sensory neurons Jiayi MAO, Westlake University, Hangzhou, Zhejiang 310030, China
p9 A Mott-Based Analytical Framework for Oxide Thin-Film Transistor Modeling Wenxuan Wang, Shandong University
p10 A novel physics-informed neural network model for amorphous silicon thin-film transistors Yingtao Xie, Dept. of Electronic Engineering, Chongqing University of Posts and Telecommunications, Chongqing, China & Information Materials and Intelligent Sensing Laboratory of Anhui Province, Anhui University, Hefei, China
p11 A Unified Compact Modeling of Threshold Voltage Degradations for Flexible LTPS Thin-film Transistors Zhifan Zhang, Shanghai Jiao Tong University
p12 A Universal DC Compact Model for OTFTs from Subthreshold to Above-Threshold Regimes Yangkun Hou, Tsinghua University
p13 Degradation Mechanism for the InGaZnO Thin-Film Transistors under Simultaneous DC Gate and Pulsed Drain Biases Stress Hanyang Dai, School of Electronic and Information Engineering, Soochow University, Suzhou, China
p14 Impact of Density of States on InGaZnO Thin-Film Transistors with Vertical and Planar Channel Structures Kunlin Cai, Shandong University
p15 Interfacial Redox Chemistry Dominates Charge Injection in Ultrathin Oxide Semiconductor Transistors Shan Hu, Sun yat-sen University

p16 Strategies for Achieving High Mobility and Stability in ITZO Thin-Film Transistors Tan Zhang, Shandong University
p17 Systematic Optimization of Structure and Components in Blend-Semiconductor Organic Thin-Film Transistors Yueshan Qin, Tsinghua University
p18 Self-Aligned Top-Gate Oxides Thin-Film Transistors for Photo-Detection Fanyou Tang, Peking University
p19 A COF-Integrated Organic Semiconductor Field-Effect Transistor for Highly Selective Gas Sensing Ning Liu, Tianjin University
p20 Ag_2Te Quantum Dots/ZnO Heterostructured Phototransistor for Near-Infrared Imaging Zexun Pan, School of Integrated Circuits, Shanghai Jiao Tong University
p21 An Organic Field-Effect Transistor-Based Visual Neuromorphic System Shengjie Wang, Tianjin University
p22 Artificial Olfaction System for NO_2 Accumulation Sensing with Synaptic Behaviors of CNT TFT Circuits Young-Woo, Department of Intelligent Semiconductor Engineering, Chung-Ang University, Seoul 06974, Korea
p23 High-resolution 1T Dual-Gate IGZO Ion-Sensitive TFT Array Achieving Super-Nernstian Response for Ion/Molecule Detections Zikang Mei, Shanghai Jiao Tong University
p24 High-Stability Intrinsically Stretchable Vertical Organic Electrochemical Transistors Shang Lu, Southeast University
p25 High-Temperature-Resistant SiAlOx Inorganic Electrolyte Enabling High-Performance ECRAM Zhijie Lin, Sun Yat-Sen University
p26 High-Voltage Thin-Film Transistors Based on Semiconducting Carbon Nanotubes Yuan Kai, Research Center for Carbon-based Electronics, Peking University
p27 Impact of source/drain contact on PBTI reliability of IGZO TFTs Zhiyu Lin, Shanghai Jiao Tong University
p28 Intrinsic Fully Transparent Thin-Film Transistors Based on Wide-Bandgap Organic Semiconductors Yidi Xie, Tianjin university
p29 Sulfur redox engineering for high-performance flexible p-type oxide TFTs and CMOS circuits Mingyang Wang, Insitute of Fundamental and Frontier Sciences, University of Electronic Science and Technology of China, Chengdu 611731, China.
p30 Vertical-Corbino Organic electrochemical transistor with Nano-Engineered Channel for High-Performance Wearable Bio-Sensing Inho Lee, Ajou University, Suwon 16499, Republic of Korea
p31 A comparative study on the temperature stability of IGZO thin-film transistor with Ga/Zn composition Jianting Wu, School of Electronics and Information Technology, Sun Yat-sen University
p32 A Stable P-type Doped Solution-processed 2D Materials and Application to the Thin Film Transistor Mingyu Kim, Department of Chemical Engineering, Pohang University of Science and Technology (POSTECH)
p33 Analog-Tunable Hydrogen Driven RRAM toward Brain-Inspired Computing Systems Hee Yeon Noh, DGIST
p34 Chalcogenides-Induced Reconfiguration of Tellurium Chains for Wide-Bandgap Oxide p-Channel Transistors Hamin Choi, Pohang university of Science and Technology

p35 Dual Modulation of Volatility and Non-Volatility in CMOS-Compatible Electrolyte-Gated Transistors Shaoming Fu, Zhongshan University
p36 Enhanced Electrical Stability of InSnZnO TFTs Using a Nitrogen-Containing Passivation Layer Mei Yang, South China University of Technology, School of Microelectronics
p37 Flexible and Fully Transparent Organic Thin Film Transistors Yilun Zhong, Tsinghua University
p38 Highly Stable, Coplanar Crystalline InGaO Thin-Film Transistors under Bias and Temperature Stress Jeongha Park, kyunghee university
p39 High-Mobility Carbon Nanotube Thin-Film Transistors for Flat-Panel Display Applications Anqi Zheng, Peking university
p40 High-Performance Air-Stable Polymer Monolayer Transistors for Monolithic 3D CMOS logics Miao Cheng, Key Lab of Fabrication Technologies for Integrated Circuits, Institute of Microelectronics, Chinese Academy of Sciences
p41 High-Performance SnO Thin-Film Transistors and All-Oxide CMOS Logic via Fluorine Plasma Treatment Peng Dai, Shandong University
p42 High-Performance Sub-400°C ALD In2O3 TFTs for BEOL-Compatible Logic Circuits Shuhui Ren, Westlake University, Hangzhou, Zhejiang 310030, China
p43 High-Quality TexSe1-x p-Type Thin-Film Transistors via Thermal Evaporation and Diffusion Junseong Park, POSTECH
p44 Interface Engineering and Hydrogen-Related Defects Evolution for Reliable ALD IGZO TFTs Under PBTI Stress Huang Zhanyuan, Student, Fudan University
p45 Intrinsic All Transparent Thin-Film Transistors Based on Wide-Bandgap Organic Semiconductors Yidi Xie, Tianjin University
p46 Laterally gated CuInP2S6 ferroelectric field effect transistors for neuromorphic computing Youna Huang, Pengcheng Laboratory
p47 Microstructure engineering of IGZO thin films for synchronous enhancement of TFT mobility and thermal stress stability Wu Hongfei, Ningbo Institute of Materials Technology and Engineering (NIMTE), Chinese Academy of Sciences (CAS), People's Republic of China
p48 Polymeric Lewis Base-Mediated Crystallization for 2D Tin-based Perovskite Thin-Film Transistor Haeyun Na, Pohang University of Science and Technology (POSTECH)
p49 Research on Ga2O3 Thin-Film Transistors and Photodetector Applications Ren Junyan, Ningbo Institute of Materials Technology and Engineering (NIMTE), Chinese Academy of Sciences (CAS)
p50 Tri-Layer Dielectric OTFT Platform for Low-Voltage Photolithographic Circuit Integration GUO Taoming, Tsinghua University
p51 A 1024-Channel Neurostimulation System Enabled by Photolithographic Organic Thin-Film Transistors with High Uniformity Bowen Liu, Tsinghua University
p52 A Peripheral Hardware Platform for OTFT Uniformity Measurement Yuzhen Huang, Tsinghua University
p53 Explortation and Demostration of Scalable Direct Memory Access for Tbps Data Transfer of GPU Design Shuang Wang, Tsinghua University

p54 Impact of Transistor Switching Performance on the Scalability of Large In-Memory Computing Arrays Liu Wenlong, University of Tsinghua
p55 Reconfigurable Organic-Inorganic TFT Technology for Multifunctional Displays Zhengyang Hu, Shanghai Jiao Tong University
P56 A 1-Megachannel Thin-Film Transistor Neurostimulator Haobin Zhou, Tsinghua University