

STRONGER
TOGETHER

Summary of Conference of Science & Technology for Integrated Circuits (CSTIC) 2024

March 17-18, 2024

www.semiconchina.org/cstic v.semi.org.cn/cstic



SEMICON[®]
CHINA

CSTIC 2024 Plenary Session



Plenary Speakers

- Evolution of Moore's Law: a Perspective

Dr. Peng Bai, CEO, Rong Semiconductor, China

- New Materials vs New Geometries in Electronic Devices

Prof. John Robertson, Emeritus Professor of Electronic Engineering, Cambridge University, UK

- Integrated Module Approach to Solutions in the Specialty Device Market

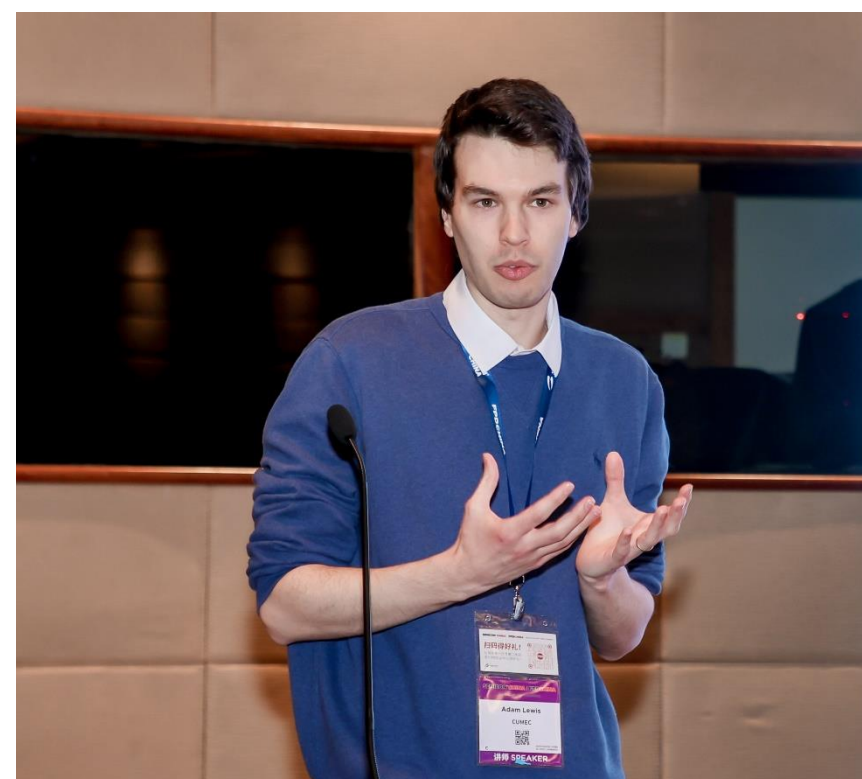
Dr. Michael Chudzik, VP of Technology, IMS ICAPS & Packaging, Applied Materials, USA

- 50 Years of Silicon Retina History
- Prof. Tobias Delbruck**, Professor in Neuromorphic Engineering, Institute of Neuroinformatics, Switzerland

- MEMS - Sustainable Technologies for a Sustainable World

Dr. Giorgio Allegato, MEMS Technology R&D Director, MEMS and Sensor Group, STMicroelectronics, Italy

>200 Oral Presentations and >300 Posters



10 Symposia with >100 Invited Speakers

Symp I: Device Engineering and Memory Technology

Symp. II: Lithography and Patterning

Symp. III: Dry & Wet Etch and Cleaning

Symp. IV: Thin Film, Plating and Process Integration

Symp. V: CMP and Post CMP Cleaning

Symp. VI: Metrology, Reliability and Testing

Symp. VII: Packaging and Assembly

Symp. VIII: MEMS, Sensors and Emerging Semiconductor Technologies

Symp. IX: Design and Automation of Circuits and Systems

Symp. X - AI & IC Manufacturing

Virtual Conference: March 27-April 23 v.semi.org.cn/cstic



Prof. Can Li,
Assistant Professor,
University of Hong Kong



Prof. Han Wang,
Professor,
University of Hong Kong



Dr. Chris Progler,
CTO&VP,
Photonics



Dr. Toru Fujimori,
Senior Expert,
FUJIFILM Corporation



Dr. Zhuo-Jie Wu,
Director,
HFC Semiconductor



Dr. Roy Pinhassi,
Product Marketing Manager,
Nova Ltd



Dr. Xin Ou, Director,
Shanghai Institute of Microsystem
and Information Technology,
CAS



Mr. Ray Saupe,
Senior Researcher &
Project Manager,
Fraunhofer ENAS



Prof. Jiang Xu,
Professor,
Hongkong University of
Science and Technology



Prof. Puneet Gupta,
Professor,
University of California
at Los Angeles



Prof. Shih-Chii Liu,
Professor,
University of Zurich and
ETH Zurich



Prof. Xiangshui Miao,
Professor and the School
Dean of Integrated Circuits,
Huazhong University of
Science and Technology



Dr. Juliane Hitzel,
International Business
Development Manager,
Advanced NanoSurface
Technologies(Shenzhen)



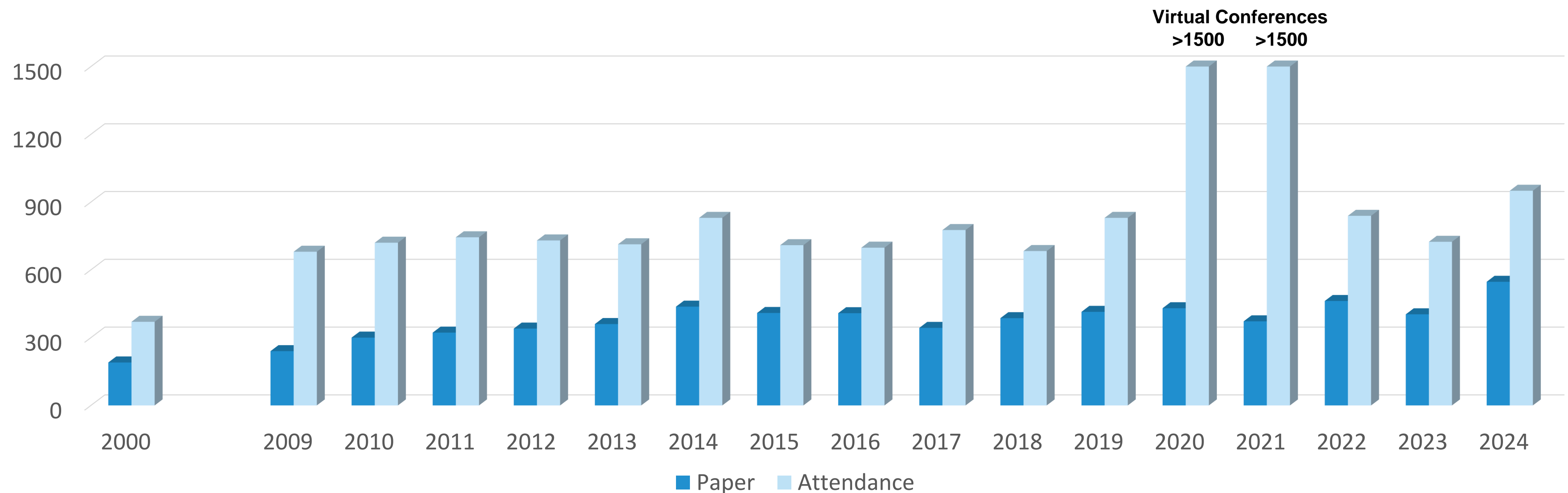
Ms. Yali Fu,
Director,
Beijing NAURA Microelec-
tronics Equipment Co., Ltd.



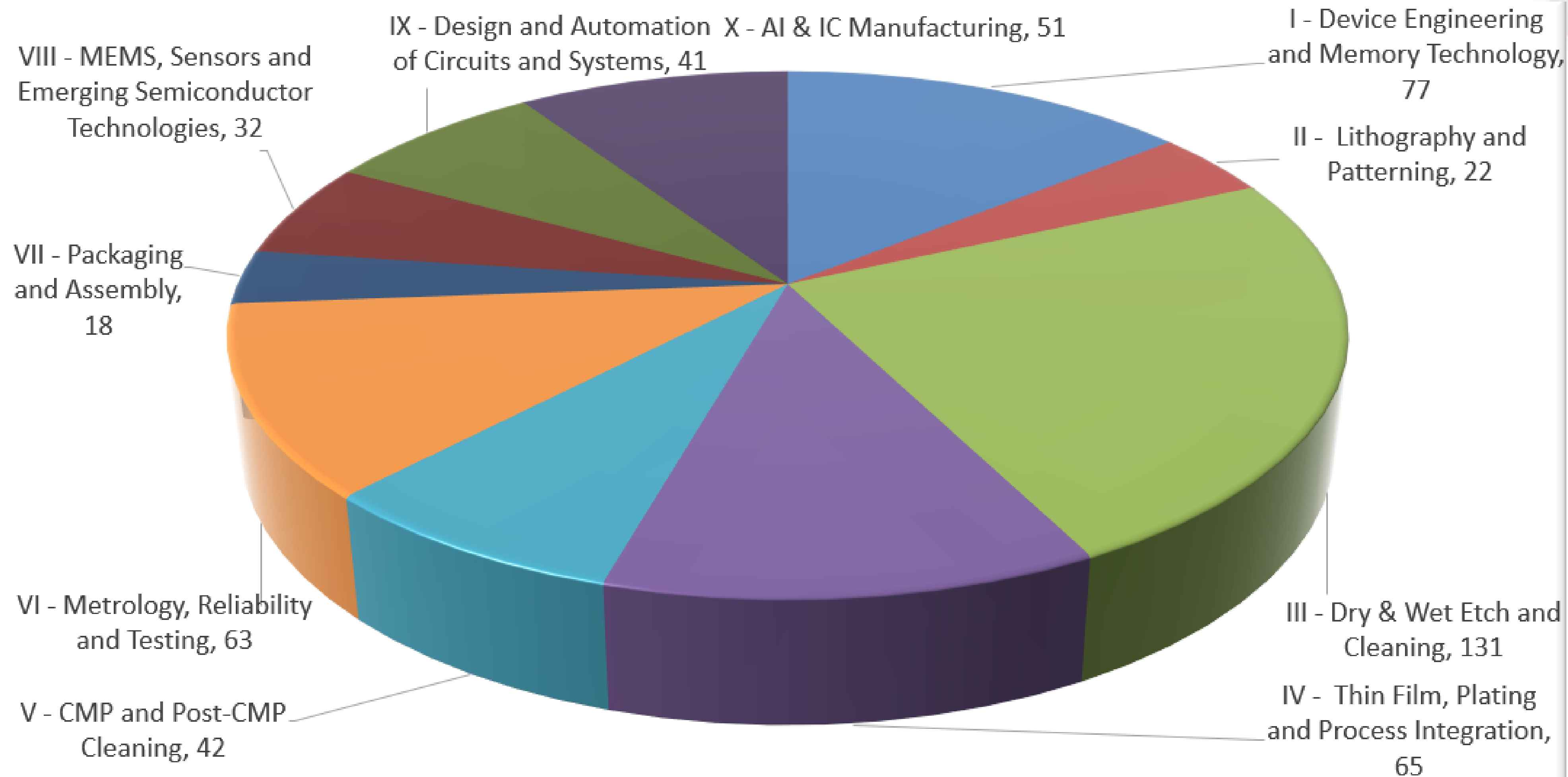
Dr. Terry Wu,
Director,
Samsung Electronics

CSTIC 2024 Summary

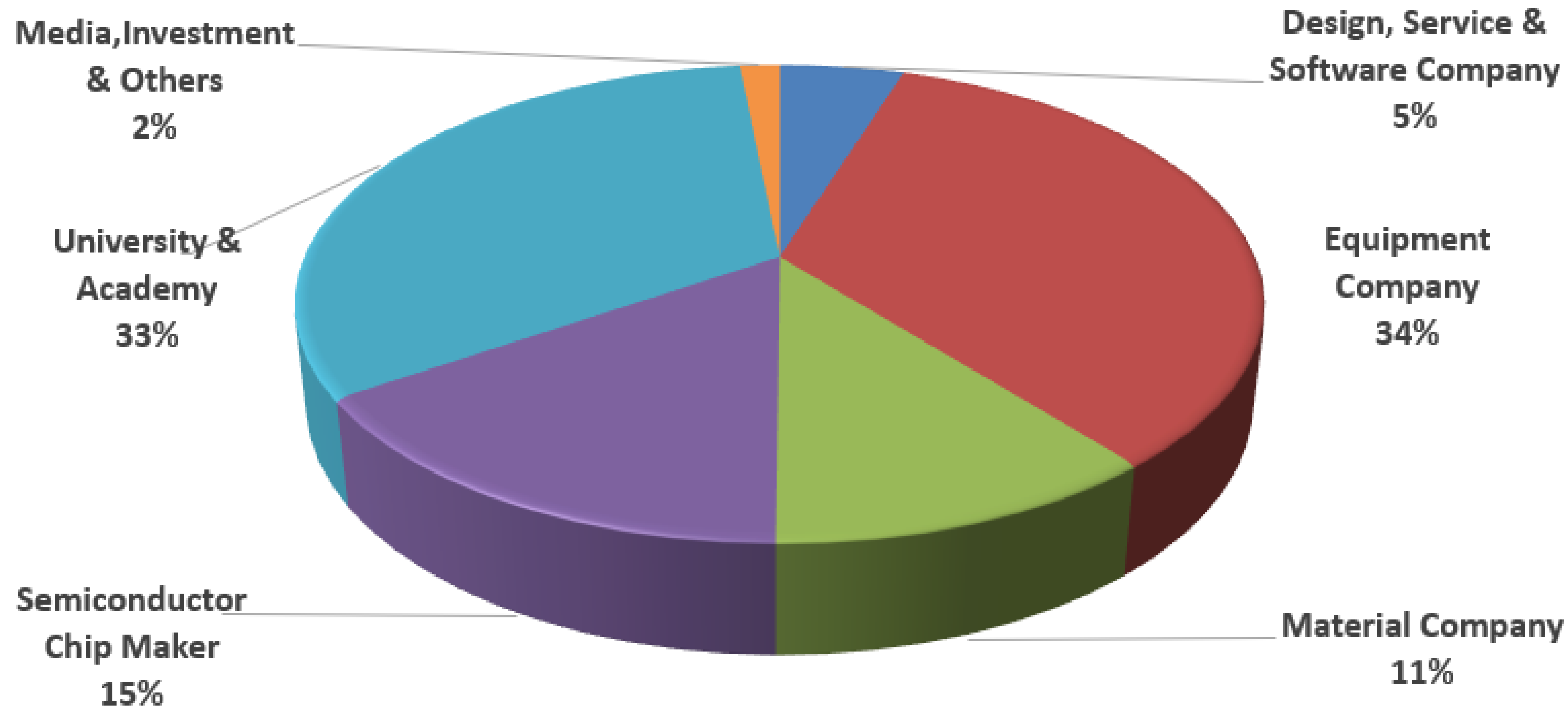
- Largest and most comprehensive, influential annual industrial semiconductor technology conference in China and Asia
- **547 abstracts** have been collected, while **939 registered attendees** joined the onsite conference. Both the numbers **break CSTIC's record**. Speakers and attendees are coming from more than 20 countries and districts, including Belgium, Canada, France, Finland, Germany, Hong Kong China, Israel, Italy, India, Japan, Korea, Malaysia, Netherlands, Sweden, Saudi Arabia, Spain, Singapore, Taiwan China, UK, USA and etc.



CSTIC 2024 Symposiums

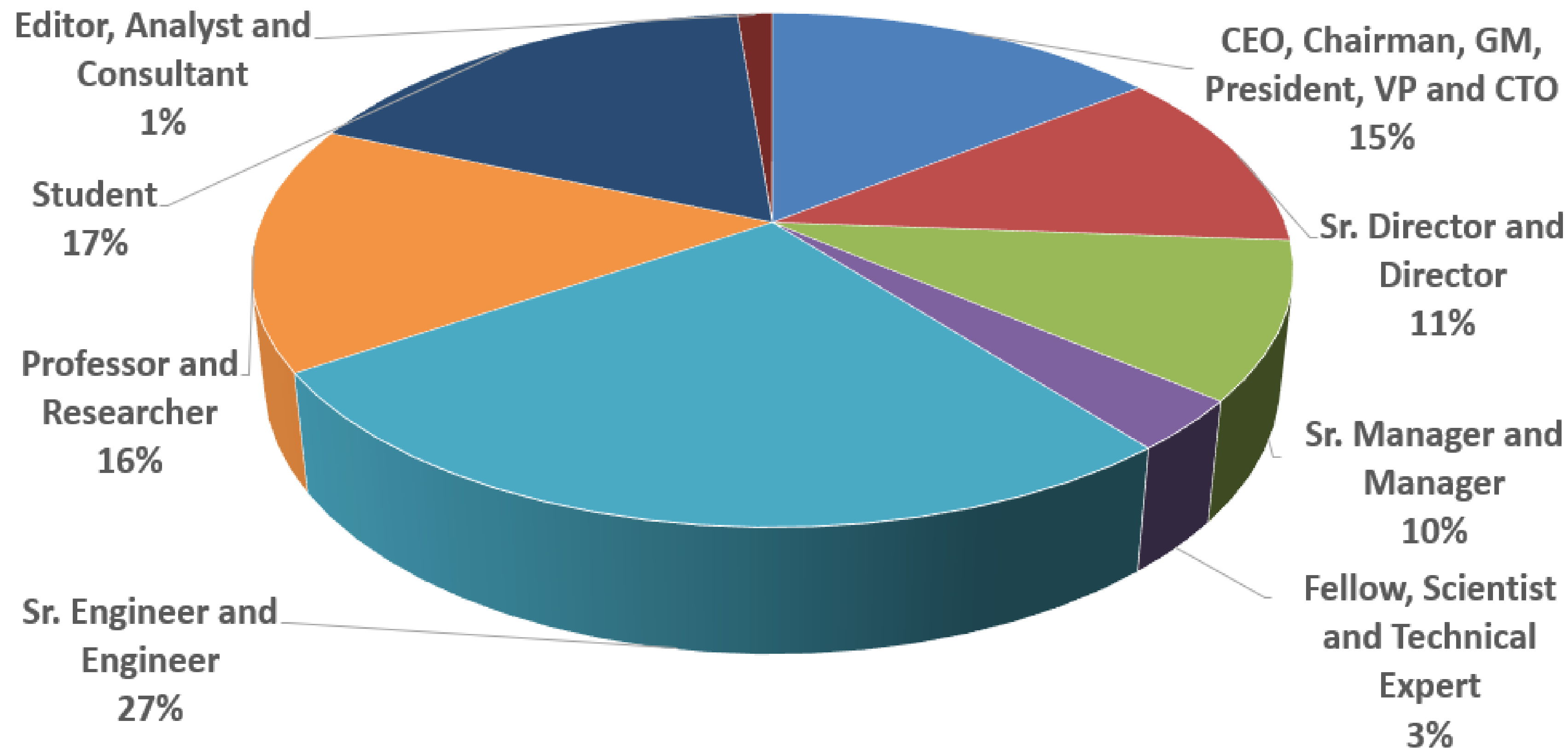


Industry and Academy Cooperation



- 67% attendees from industry, while 33% from universities and institutes

Attendee's Job Titles



- 26% of the attendees were directors or above, who were the decision makers in companies.

Attendees from 217 Companies, Universities and Institutes

Advantest
 Air Liquide
 Air Products
 AMEC
 Anchu Tech
 Anhui University
 Anji Microelectronics
 Applied Materials
 ASM
 ASML
 ASML-Brion
 Atlas Copco
 Axcelis Technologies, Inc.
 Beijing Academy of Quantum Information Sciences
 Beijing GAD Semi
 Beijing Hekun Business Management
 Beijing Integrated Circuit Equipment Innovation Center Co., Ltd
 Beijing SAMT
 Beijing Shenxing Technology
 Beijing SINEVA
 Beijing Sevenstar Flow Co., Ltd.
 Beneq
 BLACK RIVER(HONG KONG) CO., LIMITED
 Broadcom Corporation
 Cabot Microelectronics
 Caitong Securities
 Cambridge University
 CAN Semi
 CASPA
 Central South University
 CHINA ELECTRONICS ENGINEERING DESIGN INSTITUTE CO., LTD
 China Innovation
 City University of Hong Kong
 Cordouan Technologies
 Corning Incorporated
 CUMEC
 D2S Inc.
 Dalian University of Technology
 DISCO
 Dow Dupont
 E Fund Management
 East China Normal University
 Eastern Institute of Technology, Ningbo

Edwards Vacuum
 Embassy of Canada
 Empyrean
 Enkris Semiconductor
 Entegris Inc.
 Ferrotec Technology Development Co., LTD
 FLASH BILLION
 Fraunhofer ENAS
 Fudan University
 Fujifilm
 FUJIMI
 Global Research & Innovative Solutions Co., Ltd.
 GrandiT Co. Ltd
 Guangdong University of Technology
 Hangzhou Zhihe Technology
 Haohua Gas
 Harbin Institute of Technology
 Hebei University of Technology
 Hefei Institutes of Physical Science, Chinese Academy of Sciences
 Hefei National Laboratory for Physical Science at the Microscale
 Hesait Technology
 HFC Semiconductor
 HHGrace
 HIMC
 HiSilicon
 Hitachi high-tech
 HLMC
 Hong Kong Polytechnic University
 Hongkong University
 Hongkong University of Science and Technology (Guangzhou)
 Huawei
 Huawei Hong Kong Research Center
 Huawei Technologies R&D Belgium
 Huazhong University of Science and Technology
 Huntsman Corporation
 IC League
 ICT, CAS
 Illinois Tool Works
 Indium
 INDUSTRIAL BANK
 Institute of Microelectronics of the Chinese Academy of Sciences
 Institute of Semiconductor, CAS
 Intel



Attendees from 217 Companies, Universities and Institutes

IV Technologies	Polytechnical Univ. Madrid (UPM)	SMIC
JCET SEMICONDUCTOR	Pusan National University	SMNC
JET TECHNOLOGY	Qianmo Micros Design LLC	South University of Science and Technology
JHICC	Qingdao Haicun Microelectronics	Southeast University
Jiangsu Normal University	Qualcomm	Spectron Tech/UIUC
Jiangsu Shanshui Semiconductor	Reliance Memory	STMicroelectronics
Jiangsu Superior Ceramics Times Technology Co., Ltd	Rong Semiconductor, China	STR Software
JSR Electronic Materials (Shanghai)	Ruikang Intelligent (Shenzhen)	Sunshi Technology
King Abdullah University of Science & Technology	Samsung Electronics	Suzhou FISCHERTECH
KLA Corporation	Sanechips Technology Co., Ltd.	Suzhou Laboratory
KU Leuven	Science China	Suzhou Runbang semiconductor material technology
Kyoto University	Schneider	Technische Universiteit Delft
Lam Research	SCREEN Electronics Shanghai	T-Head
Lanzhou University of Technology	SDIC(Shanghai)Venture Capital Management	Tokyo Electron
Leadmicro	Semitronix	Toray Advanced Materials Research Laboratories(China)Co.,Ltd.
Leuven Instruments	Shandong University	Trumpf
MalvernPanalytical	Shanghai Aspiring	Tsinghua University
Mattson Technology	Shanghai Betone Technology	TU Darmstadt
Meminsights (Beijing)	Shanghai Biyangde Technology	TZ Tech
Micron Memory Taiwan	Shanghai CICEM	ULVAC, Inc.
Mito Kogyo CO., LTD	Shanghai ICRD	Union Memory
MKT	Shanghai Iflytek Venture Capital	Univ. of Maryland
Mycronic	Shanghai Institute of IC Materials	UniversiteitLeiden
Nanjing University	Shanghai Institute of Microsystem and Information Technology (SIMIT)	University of California, Los Angeles
Nanjing University of Posts and Telecommunications	Shanghai Jiao Tong University	University of Chinese Academy of Sciences
Nanjing University of Technology	Shanghai Kangbo Chemical	University of Science and Technology of China
Nankai University	Shanghai LSTD	UPM
National Central University	Shanghai Optoelectronic Technology Innovation Center	VAT
NATIONAL CENTRAL UNIVERSITY	Shanghai Tech University	Veerabhadra Mining and Minerals
National University of Defense Technology	Shanghai University	Witmem
NAURA	Shanghai University of Technology	Wuxi Huaying Micro
Nexchip	Shanghai VF Semiconductor	X-FAB
NI (part of Emerson)	Shanxi University	Xiamen industrial Technology Research Institute
Ningbo Inventech	Shengzhen Pango Micro	Xian ESWINSI
Ningbo University	Shenzhen Angstrom Excellence Technology	Xian Unisemi
Northeast Normal University	Shenzhen DGT Co. , Ltd.	Yuan-Ze University
NOVA LTD	Shenzhen Reexen Technology	Zeiss
NXP Semiconductors	Shenzhen Sicarrier Technology	Zhangjiang National Laboratory
OMT ORIGIN MATERIALS TECHNOLOGY	Shenzhen University	Zhejiang Lab
Peking University	Siemens	Zhejiang University
Peng Cheng Laboratory	SiEn(Qingdao) Integrated Circuites	Zhizhen Storage (Beijing) Technology Co., Ltd
Pingan Investment	SIMIC Captial	Zhongtian Huifu Industrial Investment
PIOTECH	SIMM Tech	ZJU-Hangzhou Global Scientific and Technological Innovation Center
Politecnico di Milano	SMEE	

WFD Training Courses and Panel Discussion



Panel Discussion:

AI for IC Design & Manufacturing: The Hopes, Challenges, and Opportunities

Moderator: Prof. Cheng Zhuo, Zhejiang University

Panelists: Prof. Daniele Ielmini, Politecnico Di Milano

Dr. Jun Yuan, Qualcomm

Prof. Yu Wang, Tsinghua University

Prof. Runsheng Wang, Peking University

Mr. Zusheng Yang, Empyrean

WFD Tutorial: MEMS Enabled Liquid Biopsy

Speaker: Prof. Wei Wang

Deputy Dean of School of Integrated Circuits, Peking University;
Director of the National Key Laboratory of Advanced Micro and Nano
Manufacture Technology.



WFD Tutorial: Thin Film Deposition for IC Processing Technology

Speaker: Dr. Chao Zhao

Senior VP of Beijing Superstring Academy of Memory Technology (SAMT),
China

Attendees to Plenary Session and 10 Symposia

CSTIC Attendee Number	2024	2023
Conference	939	684
Plenary Session	685	549
Symposium I: Device Engineering and Memory Technology	276	250
Symposium II: Lithography and Patterning	174	235
Symposium III: Dry & Wet Etch and Cleaning	326	314
Symposium IV: Thin Film, Plating and Process Integration	361	389
Symposium V: CMP and Post-CMP Cleaning	238	157
Symposium VI: Metrology, Reliability and Testing	183	143
Symposium VII: Packaging and Assembly	142	77
Symposium VIII: MEMS, Sensors and Emerging Semiconductor Technologies	129	52
Symposium IX: Design and Automation of Circuits and Systems	153	129
Symposium X: AI & IC Manufacturing	181	
Symp II & III Joint Session	172	199
Panel Discussion	77	

**Symposium I-X attendee number was Day 1 and Day 2 in total*

Conference Executive Committees



Dr. Beichao Zhang
Conference Chair
VP of Hangzhou HFC,
China



Prof. Bin Yu
Conference Executive Co-
Chair Symp-X Chair
Professor, Zhejiang
University, China



Dr. Ru Huang
Conference Co-Chair
Symp-I Chair Professor
of Peking University,
President of Southeast
University, Academician
of Chinese Academy of
Sciences



Dr. Cor Claeys
Conference Co-Chair and
Award Selection Chair
Professor, KU Leuven,
Belgium



Dr. Linyong (Leo) Pang
Symp-II Chair
Vice President, D2S Inc.,
USA



Dr. Ying Zhang
Symp-III Chair
Consultant



Dr. Xiaoping Shi
Symp-IV Chair
CTO, Beijing Naura
Microelectronics, China



Dr. Xinping Qu
Symp-V Chair
Professor, Fudan
University, China



Dr. Xiaowei Li
Symp-VI Chair
Deputy Director, ICT, CAS,
China



Dr. Steve X. Liang
Symp-VII Chair



Prof. Jianshi Tang (acting)
Symp-VIII Chair Associate
Professor, Tsinghua
University, China



Prof. Weikang Qian
Symp-IX Chair
Assistant Professor,
University of Michigan-
Shanghai Jiao Tong
University Joint Institute,
China



Dr. Hsiang-Lan Lung
Poster Chair
Director, MXIC, Taiwan,
China

Special Thanks to Sponsors and Co-organizers

Sponsors:



Organizer:



Co-organizers:



Co-sponsors:



CSTIC 2025 Call for Papers

Time: March 24 ~ 25, 2025

CSTIC 2025 call for papers and manuscript deadlines:

Abstract Due: Sep. 30, 2024
Author Notification: Oct. 15, 2024
Manuscript Due: Dec. 15, 2024

Copyright Due: Feb. 10, 2025
Presentation Due: Feb. 20, 2025
Conference Date: Mar. 24-25, 2025



STRONGER
TOGETHER

Thank you!