

December 13 - 15, 2017
Tokyo Big Sight, Tokyo Japan

DREAMS START HERE

CONNECT | COLLABORATE | INNOVATE

Co-located with: **WORLD OF IOT**

Organized by **semi**

Supported by:

U.S. Department of Commerce; SiC Alliance; Japan LED Association; Japan Institute of Electronics Packaging; The Japan Society of Applied Physics; Japan Electronics and Information Technology Industries Association; The Japanese Liquid Crystal Society; The Vacuum Society of Japan; Japan Vacuum Industry Association; Japan Electronics Packaging and Circuits Association; Nippon Electronic Device Industry Association; Semiconductor Equipment Association of Japan; Japan Venture Capital Association

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SuperTHEATER



Sharing Visions
of global executives and experts
(Programs on page 4)

WORLD OF IOT



An Innovation Platform
where silicon technology inter-
sects with the world of IoT

INNOVATION VILLAGE



Meet Startups
seeking partners to jointly
turn dreams into reality

MIRAI GAKKO



Educational Programs
facilitating growth and engagement
of students and young engineers

STS



Latest Developments
in semiconductor technologies
(Programs on page 3)

GETOGETHER



Deepen Your Connection
to your industry community
and build valuable networks

SEMICON Japan 2017 Sponsors (in alphabetical order)

As of Oct. 1st

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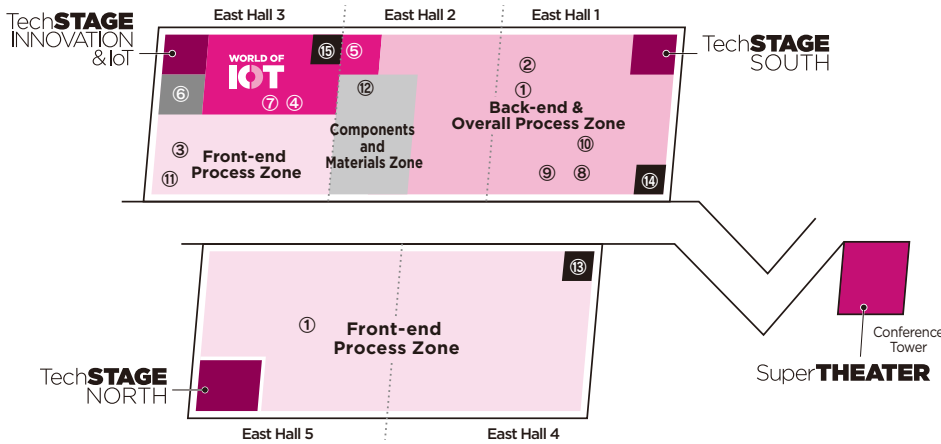
ACCURETECH
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EBARA

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VAT

DREAMS START HERE



Comprehensive Coverage

Explore exhibits that cover the entire device manufacturing processes in three zones; Front-end Process, Back-end & Overall Process, and Components & Materials, along with the following theme pavilions:

- **Manufacturing Innovation Pavilion** (Map①) Mid-to-small size companies and newcomers
- **Secondary Equipment and Services Pavilion** (Map②) Secondary equipment market that fuels 200 mm fab capacity
- **Minimalfab Pavilion** (Map③) Minimal Fab General Incorporated Association members
- **Compound Semiconductor Pavilion** (Map④) SiC, GaN, Ga₂O₃ technologies

Regional Pavilions

- US Pavilion (Map⑦)
- Holland Pavilion (Map⑧)
- German Pavilion (Map⑨)
- Moscow Pavilion (Map⑩)
- TOHOKU Pavilion (Map⑪)
- Kyusyu Pavilion (Map⑫)

WORLD OF IOT

Sponsored by

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SoftBank

The World of IoT is a showcase for IoT applications and enabling technologies. The growth of IoT applications present new opportunities for the entire semiconductor manufacturing supply chain.

Follow SEMICON Japan on SNS

Search [semicon japan](#) on facebook and twitter

SEMI Presents (Map⑤)

"All about Drones"

Learn about drone technology and business through:

1. A tear-down drone exhibit
2. Drone lectures
3. Fly a drone by yourself!

INNOVATION VILLAGE (Map⑥)

Meet startups through pitch presentations and exhibits that bring new ideas to our industry. Pitch presentation will be on December 14 (see page 3).

MIRAI GAKKO

Sponsored by

HORIBA

Muratec

THK

Students and young engineers bring our industry into the future. SEMI presents the GAKKO (school) program to help their growth and engagements.

- **TECH CAMP@GAKKO**
Hackathon based program
- **ACADEMIA@GAKKO**
University and institute exhibits
- **MIRAI COLLEGE@GAKKO**
Career guidance to university students
- **MIRAI PROGRAM@GAKKO**
Lectures for students and young engineers
- **THE KOSEN@GAKKO**
Exhibits by technical college students
- **INNOVATE Reception**
A reception for students and young engineers

Show Floor Events

Exhibitor Presentations

Tech SPOT EXHIBITOR SEMINARS	(Map⑬)
Tech SPOT WEST	(Map⑭)
Tech SPOT INNOVATION & IoT	(Map⑮)

Networking Events

SEMICON Japan Happy Hour Free

Date/Time • Dec. 14 / 16:00-17:00
Venue • Participating exhibitor booths
 Join select exhibitors during this hospitality event. Engage and network in a relaxed environment.

INNOVATE Reception (Invitation Only)

Date/Time • Dec. 14 / 17:00-18:00
Venue • INNOVATION Lounge, East Hall 3
 A special networking opportunity for WORLD OF IOT and INNOVATION VILLAGE participants and visiting young engineers.

Conference Tower Events

SEMI Presidents Reception Paid event

Date/Time • Dec. 13 / 17:15-18:30
Venue • Reception Hall B, Conference Tower 1F
 The SEMI Presidents Reception is an ideal opportunity for semiconductor manufacturers and executives from equipment and materials companies to get together and network on a global scale.

SEMI Standards Awards Ceremony and Friendship Party Free

Date/Time • Dec. 14 / 17:30-19:00
Venue • Room 607, Conference Tower 6F
 SEMI Standards members from around the world join to network and celebrate our achievements together, including presentation of the SEMI Standards Awards.

SEMI Standards Meetings Free

Date/Time • Dec. 13-15 / 8:00-17:00
Venue • Rooms on Conference Tower 6&7F
 SEMI Standards are used extensively around the world in the microelectronics manufacturing. Any registered SEMI Standards member may participate in the meetings.

Partner Event

ISSM 2017 Strategic Forum

"Awaking 6 inch and 8 inch fabs"
Date/Time • Dec. 13 / 13:00-17:30
Venue • Room 9-A, TFT Hall
 Driven by the growing sensor market for IoT devices, automotive and smartphones, 200 mm fab demands are increasing and prolonging fab life is an issue. This forum will discuss the innovative production engineering for legacy fabs.

Exhibitor Search Tool

The Exhibitor Search engine will be available through the SEMICON Japan website in November to help plan your visit with detailed exhibitor information.

Wed., Dec. 13

10:20-12:00

Heterogeneous Integration Roadmap

With the completion of the ITRS, the IEEE CPMT Society, the Electron Device Society, the Photonics Society, the ASME EPPD Division, and SEMI now present the "Heterogeneous Integration Roadmap". The session introduces its latest developments.

12:50-14:30

SCIS Forum**Sub-components - One of the Last Frontiers to Enabling Yields for Advanced Nodes**

This forum will share the ideas and efforts of device manufacturers (IDM), equipment and parts suppliers to deal with the influence of defects caused by manufacturing equipment parts.

15:10-16:50

CGMG Forum**Expanding the World of Material Technologies**

Use of AI and big data analysis greatly change the world of material development. This session focuses on the semiconductor market and the future possibilities of material technologies from the material industry viewpoint.

Thu., Dec. 14

10:20-12:00

Challenges of Young Engineers**MIRAI PROGRAM@GAKKO**

Young engineers working at the cutting edge of technological research and development fields will talk about their experiences and approaches to their work.

12:50-14:30

STS Packaging Session (1)**Fan-out Wafer Level Packaging Technologies**

In this session, experts in assembly, test, and materials will present the latest examples of FOWLP technology development in each area.

15:10-16:50

STS Packaging Session (2)**Packaging Technologies for 3D, Heterogeneous Integration and Automotive**

The generation change of packaging technologies is progressing silently yet steadily. In this session, cutting-edge technologies including 3D packaging, heterogeneous integration, automotive semiconductors and sensor packaging will be presented.

Fri., Dec. 15

10:20-12:00

Overview of Semiconductor Device Fabrication Process**MIRAI PROGRAM@GAKKO**

Presented by SEMI, this session will cover the key features of semiconductor production technology, as well as the challenges facing cutting-edge technologies.

12:50-14:30

STS Test Session**Quality and Cost Challenges for Connected Devices**

In the IoT era, multiple devices and technologies will connect through expanding networks. Speakers at this session will discuss the quality and cost of semiconductor testing that boosts these connections.

15:10-16:50

TECH CAMP Hackathon Presentation**Innovations for a Successful Industry in 10 Years**

Young engineers will have the opportunity to interact and communicate broadly with a wide variety of people who they can only meet at SEMICON Japan. They share a new value gained in their realizations and findings.

Wed., Dec. 13

10:20-12:00

STS Special Session -AI-**Innovation of AI Technology for Its Implementation**

Evolution of AI technology is steadily progressing for its practical application; At this STS Special Session, leading researchers will provide an overview of various initiatives on the practical application of AI.

12:50-14:30

Smart Healthcare Forum**Healthcare and Society Evolving by AI & IoT**

Combining and utilizing both IoT and AI has fostered steady innovation in the medical field. This session will explore the development of medical electronics and the latest technologies and solutions brought by IoT and AI.

15:10-16:50

Smart Mobility Forum**Future Oriented Society and Mobility**

From smartphones to smart cars, mobility is driving innovation in electronics, which are in turn driving innovations in mobility. In this forum, experts from leading technology companies will focus on these technologies and how they are shaping our future mobile society.

Thu., Dec. 14

10:20-12:00

Smart Manufacturing Forum**Line Building of Discrete Manufacturing in IoT Era**

This session will discuss how to construct an "Autonomous Manufacturing Line" that will be required to establish integrated manufacturing environment which cooperates beyond business boundary in the Industry 4.0 generation.

12:50-14:30

INNOVATION VILLAGE Pitches (1)**Start-Up Presentations**

Start-up companies participating in the INNOVATION VILLAGE will present their ideas, technologies, products, and services in short, five-minutes pitches.

15:10-16:50

INNOVATION VILLAGE Pitches (2)**Start-Up Presentations**

Continued: Start-up companies participating in the INNOVATION VILLAGE will present their ideas, technologies, products, and services in short, five-minutes pitches.

Fri., Dec. 15

10:20-12:00

IoT Connectivity Forum**5G? LPWA? What is the Next Wireless Communication Technology of Industrial IoT?**

In this session, presenters will discuss the connectivity innovations needed to accelerate the Industrial Internet of Things and Smart Manufacturing.

12:50-14:30

STS MEMS/Sensor Session (1)**MEMS Technologies for Autonomous Cars**

Assisted and autonomous driving systems rely heavily on advanced MEMS and non-MEMS sensor devices for safety, automation, and control. In this session, presenters will discuss the current state and future of these technologies for smart transportation applications.

15:10-16:50

STS MEMS/Sensor Session (2)**MEMS Devices Enhancing IoT**

Advanced MEMS and non-MEMS sensor devices are critical to multiple commercial and consumer IoT applications. In this session, presenters will explore the current and future uses of MEMS and sensors in advancing IoT technologies.

Wed., Dec. 13

10:20-12:00

FHE Session**JPCA/SEMI Collaboration**

Flexible Hybrid Electronics (FHE) are making electronics more mobile, more flexible, and more diverse. Discover the latest trends and applications for FHE at this session, co-sponsored by the Japan Electronics Packaging and Circuits Association (JPCA).

12:50-14:30

STS Power Device Session (1)**Wide Band Gap Power Devices -GaN/SiC/GaOx-**

Full-scale practical applications of new material power devices has begun. This session will explore the latest technology and market trends for power devices, including SiC, GaN, and GaOx.

15:10-16:50

STS Power Device Session (2)**Wide Band Gap Power Devices -GaN/SiC/GaOx-**

Continued: Full-scale practical applications of new material power devices has begun. This session will explore the latest technology and market trends for power devices, including SiC, GaN, and GaOx.

Thu., Dec. 14

10:20-12:00

Sustainable Manufacturing / High Tech Facility Forum**Improve Recycle Rate and Make It Valuable**

Improving recycling of materials and resources is critical to sustainable manufacturing. This session will explore how companies are managing materials recycling (including gas and water) and the technologies being employed for improving recycling.

12:50-14:30

STS Advanced Lithography Session (1)**Readiness of EUV Lithography for High Volume Manufacturing**

This session will address the ongoing issues and technologies employed in ramping EUV lithography to full production, including materials and light source.

15:10-16:50

STS Advanced Lithography Session (2)**Emerging Patterning Technology and Related Metrology**

The presenters will share the latest on topics including multielectron beam exposure technology, nano-imprinting, and pattern measurement technologies.

Fri., Dec. 15

10:20-12:00

Semiconductor Secondary Equipment Business Seminar**New Trends of Secondary Equipment Market in IoT and Connected World**

In this session, presenters will give an update of the Chinese secondary equipment market (200mm/300mm) and discuss the increasing demands for 200mm equipment being driven by the growing IoT market.

12:50-14:30

STS Advanced Device Session (1)**Future Vision for Advanced Device 1**

In this session, front-line engineers will present the latest technology trends for logic, memory and image sensor devices required for smaller, but higher performing mobile and IoT devices.

15:10-16:50

STS Advanced Device Session (2)**Future Vision for Advanced Device 2**

Continued: In this session, front-line engineers will present the latest technology trends for logic, memory and image sensor devices required for smaller, but higher performing mobile and IoT devices.

Super**THEATER**

Venue: Reception Hall A, Conference Tower 1F, Tokyo Big Sight

Free

Japanese-English Interpretation Available

Wed., Dec. 13

9:40-10:10

Opening Ceremony

10:20-12:00

Opening Keynotes

Visions of the Game Changing Era

IoT and AI are changing the game and redrawing the global industrial map. Technology leaders from SoftBank and Qualcomm —two companies helping drive these changes— will share their visions of the future.



Ken Miyauchi
President & CEO
SoftBank Corp.



Raj Talluri
Senior Vice President of
Product Management
Qualcomm Technologies, Inc.

12:50-14:30

Semiconductor Executive Forum

Growth Strategy in New Business Environment

In this forum, top executives from the semiconductor manufacturing industry will share their perspectives on growth in today's "new business" environment.



Russell Ellwanger
Chairman, TowerJazz Panasonic Semiconductor
CEO, TowerJazz Semiconductor;
TowerJazz Panasonic Semiconductor Co., Ltd.



Haijun Zhao
CEO
SMIC



Wayne Allan
Senior VP of Global Manufacturing
Global Manufacturing
Micron Technology, Inc.

15:10-16:50

SEMI Market Forum

In the Light and Shadow of Awakening China

The semiconductor supply chain market is experiencing a period of very strong growth, especially driven by powerful investments in China for memory and foundry manufacturing. This forum will provide forecasts and insights to help you to develop business strategies for the future in the light and shadow of China's semiconductor industry.



Lung Chu
President
SEMI China



Akira Minamikawa
Research Director
Technology Research
IHS Markit



Clark Tseng
Sr. Manager
Industry Research & Statistics
SEMI Taiwan



Dan Tracy
Industry Research & Statistics
Senior Director
SEMI

Thu., Dec. 14

10:20-12:00

IT/AI Forum (supported by US Commercial Service)

AI Strategy by IT Top Runners from the US

This popular forum, presented in cooperation with the US Commercial Service, will focus on disruptive technologies and AI, with speakers exploring the challenges and opportunities presented by these technologies.



Guy Ernest
Principal Solution Architect
Amazon Web Services, Inc.



Akira Shibata
Chief Data Scientist,
Ph.D. in Physics
DataRobot Japan



Kenzaburo Tamaru
National Technology Officer
Microsoft Japan Co.,Ltd.

12:50-14:30

IoT Global Trend Forum

Super IoT World Realized by Semiconductor

Semiconductors lie at the heart of all IoT devices, which means advanced semiconductors are critical to the growth and connectivity of an IoT future. Executives from the world's leading technology companies will discuss the future technology development needed to reach a "smarter" and more connected world.



Yuzuru Utsumi
President
ARM K.K.



Hideaki Doki
Director
Intel Architecture Technology Group
Intel K.K.



Keiichiro Shimada
Corporate Executive
Mid-to-Long term Technology,
Corporate Technology Policy and Relations
Sony Corp.

15:10-16:50

IoT Key Technology Forum

Dawn of the Smart Automotive Era

Technologies for autonomous and electric vehicles must have security and safety as a top priority as people's lives depend on that technology being fail-safe. At this session, executives from leading technology companies focused on "smart" transportation technology will share their perspectives on the future of smart cars and the innovative solutions that will get us there.



Haruyoshi Kumura
Fellow
Nissan Motor Co., Ltd.



Toru Baji
Technology Adviser,
GPU Evangelist
NVIDIA Corp.



Hideki Mukuno
General Manager
Production Technology Development Div.
Global MONOZUKURI Management Div.
Hitachi Automotive Systems, Ltd.

Fri., Dec. 15

10:20-12:00

Manufacturing Innovation Forum

Manufacturing Technology for the Diversified Future

Leading executives from global manufacturing equipment and fabless companies will share their perspectives on the future of breakthrough technologies and growth strategies for diversifying semiconductor production.



Tetsuro Higashi
Corporate Advisor, Corporate
Director
Tokyo Electron Limited



Jonathan Chang
Senior Director
Foundry Technology
Xilinx, Inc.



Rick Gottscho
Executive Vice President,
Corporate Chief Technology Officer
Lam Research Corp.

12:50-14:30

Electronics Trend Forum

New Technologies and Trends that Accelerate the "SMART" Society

Executive leaders from innovative technology companies will share their perspectives on the growing trends in "smart" technologies and what's driving their explosive growth.



Kazuo Kajimoto
Group-wide CTO Office
Senior Councilor of Group-wide
Software Strategy
Panasonic Corp.



Antun Domic
CTO
Synopsys, Inc.



Taro Shimada
Senior Executive Operating Officer,
Division Lead Japan
Digital Factory / Process Industries
and Drives Division
Siemens K.K.

15:10-16:50

Mirai Vision Forum

A Far Future Brought to You by the Evolved Technologies

How will cloud computing, AI, robots, and green computing change our lives in the future? What are the exciting technologies that are both human- and earth-friendly? This closing forum will provide insight to the world these evolving technologies may bring. Don't miss this SuperTHEATER finale!



Naomi Tomita
President & CEO
hapi-robo st, Inc.



Hironori Kasahara
IEEE Computer Society President 2018;
Professor, Department of Computer Science and
Engineering Director, Advanced Multicore
Processor / Research Institute
Waseda University



Henri Tervonen
CTO and Head of R&D Foundation
Mobile Networks
Nokia Corp.

How to Register

Please visit

► www.semiconjapan.org

Exhibition visitors are strongly encouraged to pre-register via the website.

Pre-registration is required for all sessions and events.

Inquiries SEMICON Japan Executive Secretariat
Tel: +81-50-5804-1281
Email: semicon2017@sakurain.co.jp
Open: 9:30-17:00 weekdays (excluding 12:00-13:00)

Tokyo Big Sight Access Information

By train

- Tokyo Waterfront Area Rapid Transit, **Rinkai Line**, get off at the Kokusai Tenjijo Station, 7 min. walk
- New Transit System, **Yurikamome**, get off at the Kokusai-tenjijo-seimon Station, 3 min. walk

By limousine bus from the airport

- Approx. 60 minutes from Narita Airport (get off at Tokyo Bay Ariake Washington Hotel, 3 min. walk)
- Approx. 25 minutes from Haneda Airport (get off at Tokyo Big Sight) www.bigsight.jp

Hotel

Hotels in the vicinity of Tokyo Big Sight can be reserved at special reduced rates.

Inquiries/Application

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