



**December 14 ▶ 16, 2016 10:00–17:00**

**Tokyo Big Sight, Tokyo, Japan**

**Organized by SEMI**

**Supported by:** U.S. Department of Commerce; Japan LED Association; Japan Institute of Electronics Packaging; Japan Electronics and Information Technology Industries Association; The Tokyo Chamber of Commerce and Industry; 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

Co-located with **WORLD OF IOT**

Registration ▶▶▶ [www.semiconjapan.org](http://www.semiconjapan.org)

Find Your Roadmap to the Future Here.

**SuperTHEATER**



Global executives will convene at SEMICON Japan to discover the latest technology and business developments. (Schedule on page 4)

**WORLD OF IOT**



WORLD OF IOT is a platform where silicon technology intersects with the world of IoT.

**Manufacturing Innovation Pavilion**



Explore the challenges and solutions to device scaling and “More than Moore” technology.

**Sustainable Manufacturing Pavilion**



Discover solutions focused on enhanced sustainability with secondary equipment, environmental compliance and horizontal specialization.

**INNOVATION VILLAGE**



Showcasing pitch presentations and exhibits from startups and early-stage companies.

**MIRAI GAKKO**



The 40th SEMICON Japan memorial program to facilitate workforce development for the future. (Programs on page 2)

**SEMICON Japan 2016 Sponsors** (in alphabetical order)

As of Oct. 1

**Platinum Sponsors**

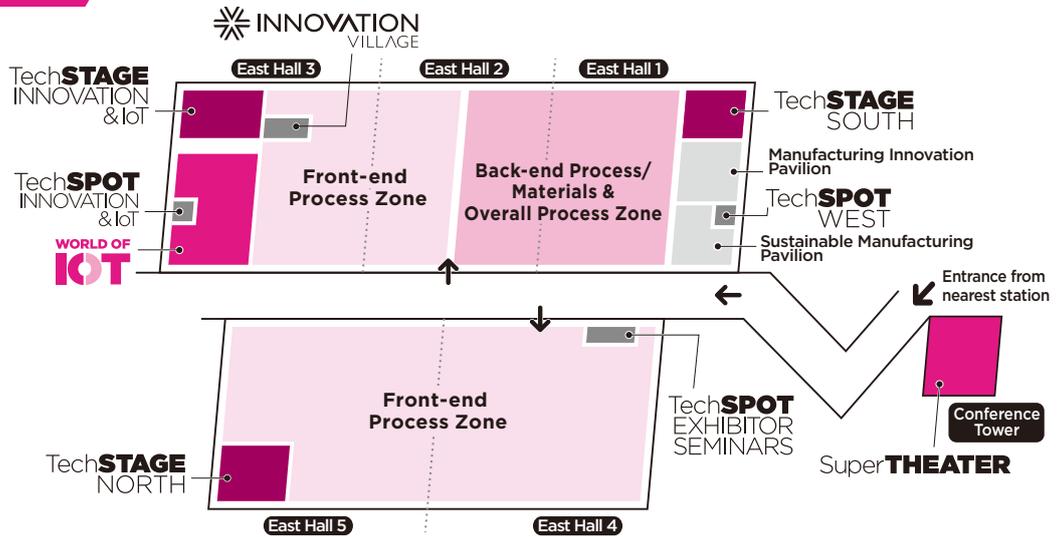


**Gold Sponsors**



Meet 700 exhibitors who lead innovation and new businesses

Explore exhibits that cover the entire device manufacturing process



Visit [www.semiconjapan.org](http://www.semiconjapan.org) for the latest information and list of exhibitors.

**Front-end Process Zone**

This exhibition zone is for front-end products and services, from device design through wafer processing.

**Back-end Process/Materials & Overall Process Zone**

This exhibition zone is for back-end and "middle-end" products, services and materials.

**Regional Pavilions**

- German Pavilion
- Korea Pavilion
- Moscow Pavilion
- US Pavilion
- Tohoku Pavilion
- Kyushu Pavilion
- Venture Business Pavilion
- Chamber of Commerce and Industry Pavilion

**Show Floor Events**

**Exhibitor Presentations**

Listen to exhibitor presentations on new products, technologies and development concepts. Attendance is **free of charge**.

|                                     |                     |
|-------------------------------------|---------------------|
| Tech <b>SPOT</b> EXHIBITOR SEMINARS | Venue • East Hall 4 |
| Tech <b>SPOT</b> WEST               | Venue • East Hall 1 |
| Tech <b>SPOT</b> INNOVATION & IoT   | Venue • East Hall 3 |

**Networking Events**

**SEMICON Japan Happy Hour** **Free**  
**Date/time** • Dec. 15 / 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)** **Free**  
**Date/time** • Dec. 15 / 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.

**MIRAI GAKKO**

the 40th SEMICON Japan Memorial Program **Free**

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

- Supported by** • US Department of Commerce and Semiconductor Equipment Association of Japan
- **TECH CAMP@GAKKO**  
Hackathon based program to develop innovative business plans
  - **ACADEMIA@GAKKO**  
University and institute research exhibits for collaboration with industry

- **MIRAI COLLEGE@GAKKO**  
Lectures and booth tours for university students and graduates
- **MIRAI PROGRAM@GAKKO**  
Presentations and discussions for students and young engineers
- **THE KOSEN@GAKKO**  
Exhibits by technical college students on their unique researches
- **INNOVATION Reception**  
A networking program for students, young engineers and startups

**Conference Tower Events**

**SEMI Presidents Reception** **Paid event**

**Date/time** • Dec. 14 / 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. 15 / 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** • December 14–16 / 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.

**Exhibitor Search Tool**

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

**Partner Events**

**International Symposium on Semiconductor Manufacturing (ISSM) 2016**

**Date/time** • December 12–13  
**Venue** • KFC Hall & Rooms, Sumida-ku, Tokyo  
 ISSM's mission is to achieve the continued prosperity of the semiconductor industry by bringing about breakthroughs in semiconductor manufacturing technologies.  
**Registration** • <https://www.semiconportal.com/ISSM>

**AGRO Innovation 2016 <AGRI TECHNO WEEK 2016>**

**Date/time** • December 14–16  
**Venue** • West Hall, Tokyo Big Sight  
**Organizer** • Japan Management Association  
 You can visit the professional exhibition showcasing front-line technologies for the agricultural business with your SEMICON Japan badge.  
**Registration** • <http://www.jma.or.jp/ai/en/>

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Search [semiconjapan](http://semiconjapan.com) on facebook and twitter

|                 | Wed., Dec. 14   | Thu., Dec. 15  | Fri., Dec. 16  |
|-----------------|---|--|--|
| 10:20<br>-12:00 | <b>Asia Semiconductor Market Seminar</b><br><b>Trends in the China and India</b><br>Experts will discuss future trends in China. Additionally, representatives of the Indian semiconductor sector will describe the present status of the Indian semiconductor industry and the outlook for the future.                   | <b>Overview of Semiconductor Device Fabrication Process — presented by SEMI</b><br><b>MIRAI PROGRAMS@GAKKO</b><br>This session will cover key features of semiconductor production technology, structure of CMOS, individual technologies used in the production of MOS LSIs, applications, principles and the basic structure of devices.                   | <b>STS Packaging Session</b><br><b>Fan-out Wafer Level Packaging Technologies</b><br>In this session, experts from OSAT and assembly equipment and materials suppliers will present the latest case studies of the development of fan-out WLP products and technology.         |
| 12:50<br>-14:30 | <b>Flexible Hybrid Electronics Forum (1)</b><br><b>FHE in the IoT and wearable devices</b><br>In 2015, SEMI formed a strategic partnership with the FlexTech Alliance. This session will discuss new technologies of IoT and wearable devices, based on conventional semiconductor and flexible electronics technologies. | <b>Sustainable Manufacturing &amp; High Tech Facility Forum (1)</b><br><b>Towards Increased Efficiency Through Reduced Energy Consumption</b><br>This forum examines environmental, health, and safety (EHS) issues, focusing not only on energy savings in individual fields, but also on the needs of end users and solution technologies suppliers offer. | <b>STS TSV/2.5D/3D Session</b><br><b>TSV 3D Business in Future</b><br>This session will present a cost image of 3D TSV mounting and consider the future prospects for 3D mounting, using GPU and semiconductor embedded substrates as case studies, from the viewpoint of EDA. |
| 15:10<br>-16:50 | <b>Flexible Hybrid Electronics Forum (2)</b><br><b>Developments in FHE applications</b><br>This session will focus on end products as case studies of applications of FHE. Begin with the latest trends and development case studies in wearable products, personal devices and IoT-related applications.                 | <b>STS Test Session</b><br><b>Testing Technology for IoT Devices</b><br>This session will feature presentations on test technology required in the development and mass production of IoT devices by speakers at the forefront of the sector.  | <b>Academia Session</b><br><b>ACADEMIA@GAKKO</b><br>Seven schools selected from among the more than 40 schools that exhibited at Academia@GAKKO will present the results of their latest research.   |

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| 10:20<br>-12:00 | <b>STS MEMS/Sensor Session (1)</b><br><b>Widening Applications for Sensors</b><br>This session will examine case studies of the application of sensors in three high-profile areas: sports science, construction machinery, and drones, exploring the potential of the industry and technology.                      | <b>IoT and Innovation Village Joint Talk Session</b><br><b>Manufacturing Startups today</b><br>The number of university-related research & development startups and manufacturing startups in Japan has been growing in recent years. This session will bring together leading entrepreneurs to explore these issues. | <b>Smart Healthcare Forum</b><br><b>The Healthy Life of the Future, Built on IoT</b><br>This forum will look at the future that the incorporation of information technology into health and medical care will bring, and will present the latest technologies and solutions.         |
| 12:50<br>-14:30 | <b>STS MEMS/Sensor Session (2)</b><br><b>Heterogeneous-Integration in MEMS</b><br>Microsystems are expected to bring about a qualitative transformation. This session will explore the potential of heterogeneous integration through presentations on markets, application technologies and elemental technologies. | <b>INNOVATION VILLAGE Pitch (1)</b><br><b>Start-Up Presentations</b><br>The Innovation Village will showcase start-ups presenting unique ideas, technologies, products, and services.   | <b>IoT Platform Forum</b><br><b>IoT Platform Utilization Technology for Manufacturing Industry</b><br>This forum will look at how platforms can be used to achieve a more organic fusion between manufacturing and IoT devices, and create more services and business opportunities. |
| 15:10<br>-16:50 | <b>STS Special Session –AI–</b><br><b>AI technology</b><br>In this special session, speakers at the forefront of the AI field will outline the evolution of AI technology, its potential for application in daily life, and the challenges to overcome.  | <b>INNOVATION VILLAGE Pitch (2)</b><br><b>Start-Up Presentations</b><br>The Innovation Village will showcase start-ups presenting unique ideas, technologies, products, and services.   | <b>Smart Manufacturing Forum</b><br>Representatives of the Industrial Internet Consortium (IIC), which has grown rapidly since its foundation in March 2014, will discuss their vision for IoT technologies with specific case studies.  |

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| 10:20<br>-12:00 | <b>STS Power Device Session (1)</b><br><b>The New Material Power Semiconductor (1)</b><br>The commercialization of power devices using new materials is beginning to gather momentum. This session will cover the present situation in SiC and GaN power devices and mounting, and peripheral technologies, including market trends. | <b>STS Advanced Lithography Session (1)</b><br><b>Progress of EUV lithography for HVM</b><br>It is said that the application of EUVL to the mass production of semiconductors is only a matter of time. This session will examine the current state of readiness and recent developments in EUVL. | <b>Semiconductor Used Equipment Business Seminar</b><br><b>Solutions Supporting the Expanding 200mm Market</b><br>This session will begin with an update on the Chinese market. Followed by the utilization of used devices, and an analysis of future trends in the 200mm market.  |
| 12:50<br>-14:30 | <b>STS Power Device Session (2)</b><br><b>The New Material Power Semiconductor (2)</b><br>The commercialization of power devices using new materials is beginning to gather momentum. This session will cover the present situation in SiC and GaN power devices and mounting, and peripheral technologies, including market trends. | <b>STS Advanced Lithography Session (2)</b><br><b>Status of Lithography Extensions</b><br>This session will introduce the latest developments in lithography technology including immersion exposure, nano-imprint technology, and multi-electron beam technology.                                | <b>STS Advanced Device Session (1)</b><br><b>Future Visions for Advanced Devices (1)</b><br>Understanding the cutting-edge device and process is the key to mobile and IoT, development of logic, memory, and image sensor devices continues. In this session, leading engineers will present the latest technological trends and developments. |
| 15:10<br>-16:50 | <b>CGMG Forum</b><br><b>Chemicals &amp; Gases</b><br>This forum will look at the materials requirements for high-volume semiconductor manufacturing at 10, 7, and 5 nm. Speakers will review device makers' expectations and requirements of new materials and process gases.  | <b>Challenges of Young Engineers</b><br><b>MIRAI PROGRAMS@GAKKO</b><br>Young engineers describe their experiences and approaches to their work. This session presents an outstanding opportunity for young engineers to gain inspiration and ideas for the future.                                | <b>STS Advanced Device Session (2)</b><br><b>Future Visions for Advanced Devices (2)</b><br>Understanding the cutting-edge device and process is the key to mobile and IoT, development of logic, memory, and image sensor devices continues. In this session, leading engineers will present the latest technological trends and developments. |

# SuperTHEATER

Don't miss connecting to the latest information and insight from the world's top executives and leading technology experts!

|                 | Wed., Dec. 14  | Thu., Dec. 15   | Fri., Dec. 16   |
|-----------------|--|---|---|
| 9:40<br>-10:10  | <b>Opening Ceremony</b><br><b>Opening Keynotes</b><br><b>Into the Future</b><br>Computers are changing the world of the future, transforming our culture. What must we do in this new world? The world's leading researchers will present their unique insights into the future.   | <b>Industrial IoT Forum</b><br><b>Competition in Manufacturing Industry Digitizes</b><br>IoT technologies bring great changes in the manufacturing. In this forum, directors of leading Japanese, German and US core companies will explore long-term technological and business outlook and growth strategies at a global level.   | <b>Technology Trend Forum</b><br><b>The Tokyo 2020 Olympics: Innovation for All</b><br>What science and technology can do for the 2020 Tokyo Olympics, regardless of language and cultural differences? This session will discuss visions, initiatives and new technologies in every field.   |
| 10:20<br>-12:00 |  <b>Dario Gil</b><br>Vice President<br>Science & Solutions<br>IBM Research<br><br> <b>Yoichi Ochiai</b><br>Assistant Professor<br>Head of Digital Nature Group<br>University of Tsukuba  |  <b>Taro Shimada</b><br>Senior Executive Operating Officer, Division Lead Japan<br>Digital Factory/Process Industries and Drives Division<br>Siemens Japan<br><br> <b>Mayoran Rajendra</b><br>Solution Architect<br>GE Digital<br>GE International<br><br> <b>Kiyonori Inaba</b><br>Member of the Board Executive Managing Officer<br>General Manager, ROBOT Business Division<br>FANUC   |  <b>Eizo Matsumoto</b><br>Deputy Director General for Science,<br>Technology and Innovation<br>Cabinet Office<br><br> <b>Yasuhiro KANATANI</b><br>Director<br>Department of Health Crisis Management<br>National Institute of Public Health<br><br> <b>Masahiro Ido</b><br>Executive Officer / Director of Tokyo Olympic & Paralympic<br>Enterprise Division / Director of Business Solution Division<br>Panasonic |
| 12:50<br>-14:30 | <b>Semiconductor Executive Forum</b><br><b>The Creation of New Business Opportunities</b><br>Top executives from the global semiconductor industry will look to the future with views into new business creation and its role in enriching our lives.  | <b>Autonomous &amp; Connected Car Forum</b><br><b>Automated Driving and Safety Control</b><br>Directors of leading companies working to develop comfortable motorized society will examine the challenges facing the industry, propose solutions, and reveal their outlook for the future.  | <b>Manufacturing Innovation Forum</b><br><b>Breakthrough Technologies for the Future</b><br>The semiconductor industry has begun to follow two different paths: further device scaling and a new approach high performance. Executives from leading companies the way in manufacturing innovation will discuss their strategies and outlooks.   |
|                 |  <b>Yasuo Naruke</b><br>Representative Executive Officer, Corporate Senior<br>Executive Vice President and CEO, Storage<br>& Electronic Devices Solutions Company<br>TOSHIBA<br><br> <b>Jack Sun</b><br>VP of R&D, CTO<br>Research and Pathfinding<br>TSMC<br><br> <b>Hiroshi Iwatsubo</b><br>Executive Vice President (Board Member)<br>Corporate Technology & Business Development Unit<br>Murata Manufacturing |  <b>Masayuki Habaguchi</b><br>Operating Officer<br>Automobile R&D Center<br>Honda R&D<br><br> <b>Toru Baji</b><br>GPU Evangelist<br>NVIDIA<br><br> <b>Katsuhiko Itagaki</b><br>Corporate Chief Professional for Automotive<br>1st Solution Business Unit<br>Renesas Electronics   |  <b>Shigeyuki Uzawa</b><br>Managing Executive Officer<br>Chief Executive, Optical Products Operations<br>Canon<br><br> <b>Yang Pan</b><br>Chief Technology Officer<br>Global Products Group<br>Lam Research<br><br> <b>Toshi Nishigaki</b><br>VP & General Manager<br>Development & Production Division<br>TOKYO ELECTRON  |
| 15:10<br>-16:50 | <b>SEMI Market Forum</b><br><b>The Electronics Manufacturing Supply Chain</b><br>Industry consolidation, advanced technology adoption, and China market development continue to shape the electronics manufacturing sector. This forum will provide expert insights on these complex factors and updated forecasts for the electronics value chain.  | <b>US Commercial Service IT Forum</b><br><b>Cyber Security for the Manufacturing Industry</b><br>Top executives from the world's leading IT companies will discuss "Cyber Security" in the manufacturing sector, with the full support of the Commercial Section of the United States Embassy.  | <b>IOT Innovation Forum</b><br><b>Semiconductor Devices for IoT</b><br>The emerging technology market is set to grow. In this forum, executives from leading semiconductor companies will discuss technology outlook and strategies for the future.   |
|                 |  <b>Akira Minamikawa</b><br>Research Director<br>Technology Research<br>IHS Markit<br><br> <b>G. Dan Hutcheson</b><br>CEO<br>VLSI Research<br><br> <b>Clark Tseng</b><br>Sr. Manager<br>Industry Research & Statistics<br>SEMI Taiwan<br><br> <b>Dan Tracy</b><br>Senior Director<br>Industry Research & Statistics<br>SEMI    |  <b>Scott Jarkoff</b><br>Senior Security Advisor<br>Cyber Security Initiative Office, Sales Engineering<br>McAfee, Intel Security Group<br><br> <b>John Kirch</b><br>Regional Director – North Asia<br>Darktrace<br><br> <b>Yoshiyuki Hamada</b><br>Director Chief Technology Officer and<br>Innovation Center Tokyo<br>Cisco Systems<br><br> <b>Mihoko Matsubara</b><br>Chief Security Officer Japan<br>Palo Alto Networks |  <b>Martin Cotter</b><br>Vice President<br>Internet of Things (IoT) and Healthcare and<br>Consumer Business Units<br>Analog Devices<br><br>Infineon Technologies<br><br> <b>CP Hung</b><br>Vice President<br>Corporate R&D<br>ASE GROUP   |

## How to Register

Please visit

► [www.semiconjapan.org](http://www.semiconjapan.org)

Visitors of the exhibition 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: [semicon@sakurain.co.jp](mailto:semicon@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 Narita Airport (get off at Tokyo Big Sight)

## Hotel

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

### Inquiries/Application

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