

CEATEC[®] JAPAN

— CPS/IOT EXHIBITION —



Connecting Society,
Creating the Future

CPS/IOT EXHIBITION

Exhibition Report

Sponsors : CEATEC JAPAN Executive Board

CIAJ Communications and Information network Association of Japan

JEITA Japan Electronics and Information Technology Industries Association

CSAJ Computer Software Association of Japan

2016.10.4 **Tue** ▶ 10.7 **Fri**

▶▶▶ Makuhari Messe

2016

CEATEC JAPAN 2016

TOPICS

CEATEC JAPAN has evolved into CPS/IoT exhibition

CEATEC JAPAN 2016 was held as Technology Showcase – a comprehensive exhibition of CPS/IoT that will change our lifestyles and industrial structure – and a venue to disseminate concepts and new business models focusing on the future.

■ A significant number of visitors and exhibitors exceeding from last year gathered!

• Visitors

Total number of visitors*:
145,180

*Total registered visitors, registered press and exhibitors, excluding reentries

• Exhibitors

Total number of exhibitors:
648

■ Exhibition theme: Connecting Society, Creating the Future

As a new, next-generation exhibition that creates “connectivity” to co-create the future, conferences and special events were held that link diverse industries and businesses, and connect leading-edge technologies such as artificial intelligence, Fintech, and robotics.

• Conference

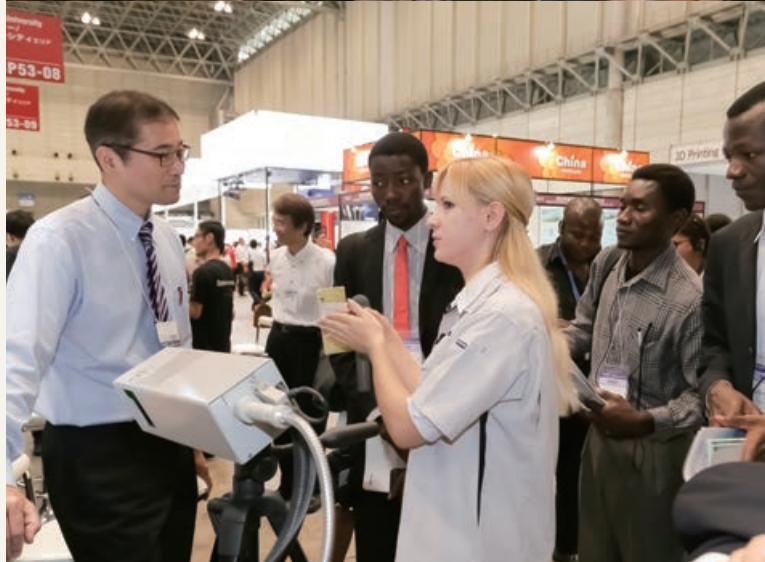
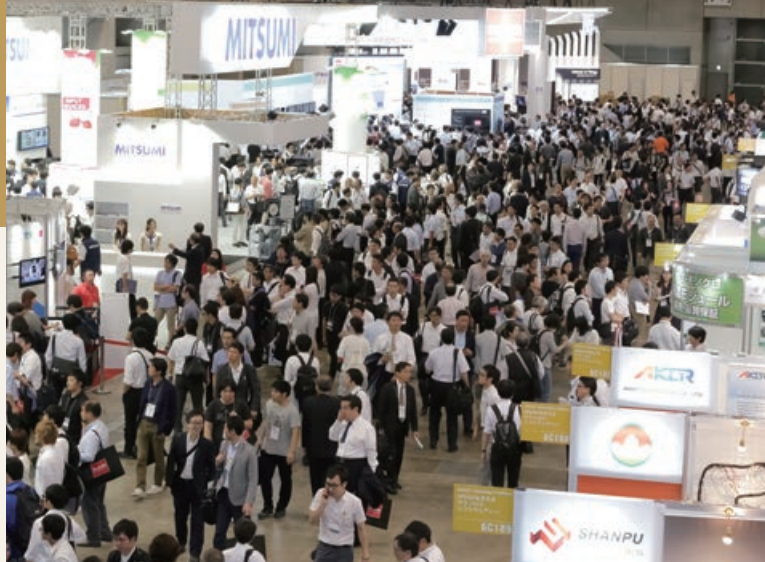
Total number of conference sessions:
147

Total number of attendances*:
25,968

Note: A total number of attendees to seminars held during the exhibition.

• Venture

Startups & University-academic institutions:
139



CEATEC JAPAN 2016

TOPICS

■ Opening Reception

On October 3 (Mon), the eve of show opening, Opening Reception was held at Palace Hotel Tokyo. Among the guest speakers were Prime Minister Shinzō Abe and two members of his Cabinet – Sanae Takaichi, Minister of Internal Affairs and Communications, and Hiroshige Sekō, Minister of Economy, Trade, and Industry. In addition to the representatives of exhibiting companies, government officials including many members of the Diet, and embassy officials of various countries gathered at the reception.

• Opening Reception

Total number of attendances:
837

■ Attracted attention of domestic and foreign media

This year's show gathered attention of a variety of domestic and foreign including global news organizations, national newspapers in Japan, and various specialized media focusing on advanced technology.

• Press

Total number of press/media visitors:
1,573

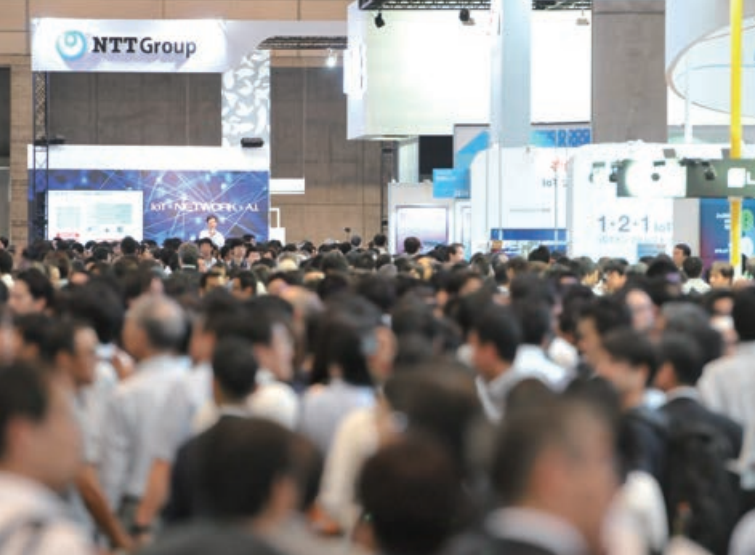
CEATEC JAPAN 2016 was held for four days from October 4 (Tue) to 7 (Fri), 2016 at Makuhari Messe in Chiba, Japan. The event was a great success thanks to the support of Japan's Ministry of Internal Affairs and Communications, Ministry of Economy, Trade and Industry, NHK, and 25 government agencies and organizations, as well as assistance from 51 public organizations. 2016 marks CEATEC JAPAN's 17th year, and this year it has taken a bold step into the future, evolving from a comprehensive IT and electronics exhibition into a CPS/IoT Exhibition. As a venue for promoting futuristic concepts and new business models, CEATEC JAPAN has transformed into a technology showcase for CPS/IoT, which has the potential to transform people's lifestyles and the industrial landscape.

To demonstrate the different ways in which advanced CPS/IoT technologies will shape our future lifestyles, and to allow visitors to experience each of these for themselves, the exhibition was divided into 4 main areas – Community Area, Town Area, Home Area, and CPS/IoT Technology & Software Area.

Many key executives – from leading global corporations and research organizations in different fields – took the rostrum at the various conferences that were held, giving keynote speeches on the coming CPS/IoT era and taking part in discussions of the latest trends in the U.S. and Germany as well as on such topics as artificial intelligence, Industry 4.0 and Fintech.

As a comprehensive CPS/IoT exhibition that brings together under one roof not only the technologies that will underpin a CPS/IoT society but also the services that will make use of those technologies, showcasing business models for this new age, CEATEC JAPAN is a next-generation event with a bold new mission – that of collaborative generation of the future.





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Results

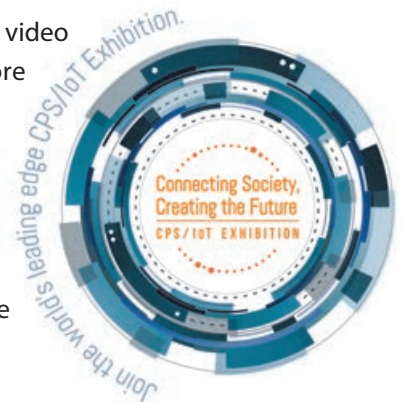
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Exhibition Theme/Exhibition Configuration

○ The Emergence of CPS/IoT will Revolutionize Industries

Thanks to enhancements in both data-driven and sensor technologies, text, images, video and virtually everything around us even where we live and work will become more informatized. As improved collection and analysis of data help to enrich lifestyles and remove barriers between industries around the world, CEATEC JAPAN - a comprehensive cutting-edge IT and electronics exhibition – was reborn as a venue enabling people to better visualize a future in which society can benefit from the tremendous potential of CPS/IoT.

CEATEC JAPAN 2016 was held under the theme “Connecting Society, Creating the Future” to inspire co-creation among people and businesses.



○ Starting 2016, the exhibition features completely new zoning

It is divided into 4 areas of Community, Home, Town, and CPS/IoT Technology & Software, as well as the Special Exhibit area.

■ Community Area

The Community Area focuses on ensuring safe and sound communities through managing public infrastructure, transportation systems, disaster measures and energy, as well as environmental monitoring.

■ Town Area

The Town Area highlights environmental improvements to facilitate the development of cities offering comfortable spaces in which it is easy to live and work, as well as to ways to offer infrastructure and services for the prospective visitors to Japan in the future.

■ Home Area

The Home Area is all about realizing comfortable and fulfilling lifestyles through entertainment with immersion and healthcare/lifestyle support robotics.

■ CPS/IoT Technology & Software Area

This area highlights the diverse electronic components, materials and software that are indispensable for realizing CPS/IoT technologies.

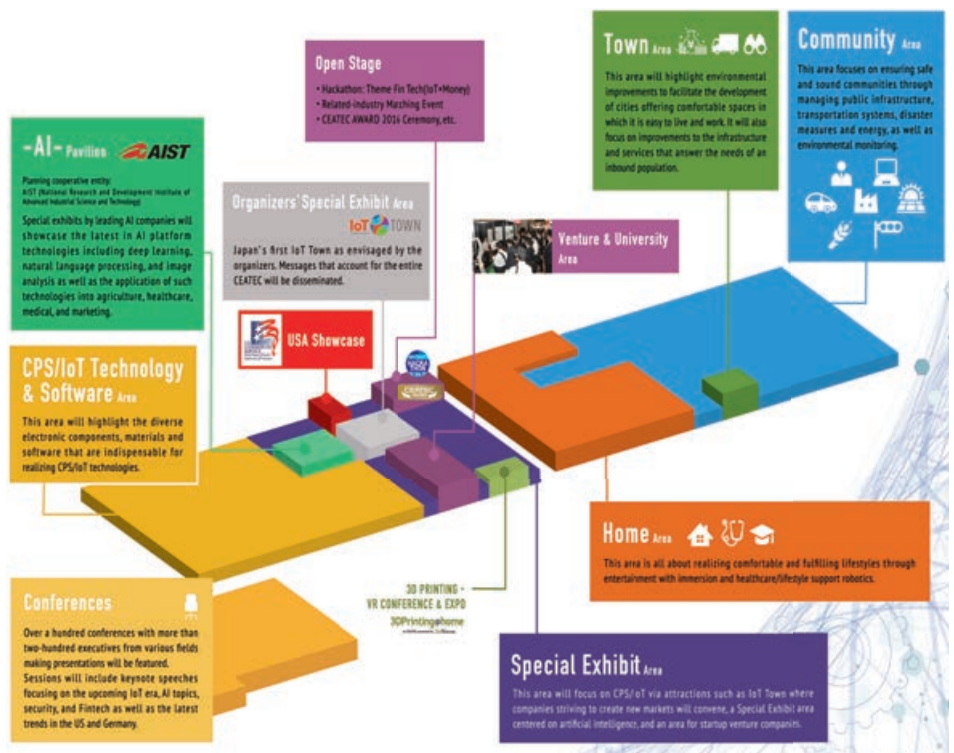
■ Special Exhibit Area

This area focuses on CPS/IoT via attractions such as IoT Town where companies striving to create new markets convene, a Special Exhibit area centered on artificial intelligence, and an area for startup venture companies.

Exhibit Product Categories

Sensor Networking Technologies
Communications Networking Related
Cloud Solutions
Big Data Related
Security Services and Solutions
Measurement Technologies
Control Systems
M2M Solutions
Smart Home Technologies
Smart Connected Equipment
Information-Communications Equipment & Mobile
Devices/AV & Entertainment Related
Smart Appliances
HEMS-related Systems, Services, and Solutions
Robotics
Medical & Healthcare Related
Mobility/Connected Car Related
Supply Chain Management & Logistic Systems
Environment & Energy Related, Electricity
Retailing
Design & Manufacturing Solutions
Infrastructure & Industry Safety Related
Financial Systems & Services
Government System & Services
Educational Related Systems & Services
Software Related
Applications
Content Related
Social Systems & Leading-edge Technologies
Electronic Parts & Components
Semiconductor Devices
Display Devices
Batteries
Raw Materials and Electronic Materials
Others

Venue Staging: Halls 1 to 6 and International Conference Hall at Makuhari Messe



Opening Reception



On October 3 (Mon) an opening reception was held for CEATEC JAPAN 2016 at the Palace Hotel Tokyo.

Among the guest speakers were Prime Minister Shinzō Abe and two members of his Cabinet – Sanae Takaichi, Minister of Internal Affairs and Communications, and Hiroshige Sekō, Minister of Economy, Trade, and Industry. Also, preceding the opening reception there were signing ceremonies related to collaboration between Japan and Germany as partner nations for CeBIT 2017, and also international collaboration in the field of IoT. These ceremonies were followed by a photo session.

Along with the announcement of the CeBIT agreement, speeches were made by Hiroyuki Ishige, Chairman and CEO, Japan External Trade Organization (JETRO), and Marius Feltsman, Senior Vice President, Deutsche Messe AG. Stefan Schnorr, Director General of Digital and Innovation Policy at Germany's Federal Ministry of Economic Affairs and Energy, also gave a speech on the collaboration between Japan and Germany. Additionally, to mark the agreements on international collaboration in the field of IoT, a talk was given by Jun Murai, Chairman of the IoT Acceleration Consortium. The opening reception was attended by 837 guests, including many members of the Diet together with the representatives of the companies exhibiting at CEATEC JAPAN 2016.

CEATEC JAPAN 2016 Opening Reception

Schedule : Mon., Oct. 3rd , 2016, 6:05 p.m. ~8:00 p.m.

Venue : Palace Hotel Tokyo, Aoi Banquet Room



■ Congratulatory Speech

Mr. Shinzō Abe, Prime Minister of Japan

"Recently in the Diet I find myself frequently fielding questions concerning IoT and the Fourth Industrial Revolution. The history of Japan's IT and electronics industry is surely an integral part of the history of Japan's postwar economic growth.

"1964 was the year when the last Tokyo Olympics and Paralympics were held. It was also the year when the Electronics Show, the forerunner of CEATEC, was first held. Back then, I used to get quite excited whenever a new electric appliance came on the market. I remember how thrilled I was at the great difference these products made to our lives. That period of high economic growth also brought with it great changes to the towns and cities of Japan. As people purchased televisions, washing machines and refrigerators, Japan's economy thrived, rapidly becoming one of the largest in the world.

"I understand that CEATEC, which has helped to foster the development of Japan's electric appliances, has now undergone a transformation of its own. Instead of home appliances the exhibition is now focused on the solutions IoT can offer to the issues facing society. In this cutting-edge field, CEATEC is to become a magnet for IoT that attracts technologies, people and information from around the world. I have high hopes that it will succeed in this new venture.

"New value will be created by making use of big data and AI to create links between people and products in ways that were never before imagined. No doubt there are people who will say that the technologies and expertise that Japan now possesses will be of no use in the age of the Fourth Industrial Revolution, but I disagree. For example, we have the technologies that are essential to the Fourth Industrial Revolution, such as high-precision sensors and advanced robotic control. Just as important is the formidable expertise of the engineers who are steadily



improving these technologies in the field. "The customer is king," as we say, and the commitment to continuously advance our technologies, products and services under the uncompromising gaze of the discerning customer is Japan's great asset.

"The Fourth Industrial Revolution will improve the productivity of our enterprises while also improving the lives of our citizens. You are at the center of this revolution, and you can count on our support in this new endeavor. The Future Investment Council, which was set up last month, will be instrumental in seeing that the necessary reforms are carried out promptly.

"Japan is facing a crisis brought on by a falling birthrate and an aging, shrinking population.

However, with your outstanding technologies and intrepid spirit, I feel certain that we will be able to build a strong Japanese economy. This is truly a case of turning crisis into opportunity.

"IT and electronics represent core industries for Japan, employing over a million people. I believe that your contribution is crucial for the development of our economy.

"Finally, I would like to bring my speech to a close by wishing everyone gathered here today good health and good luck in all your endeavors, and I look forward to the continued success of CEATEC."

(The above is excerpted from the Prime Minister's address.)



Congratulatory Speech
Ms. Sanae Takaichi
Minister of Internal Affairs and Communications



Congratulatory Speech
Mr. Hiroshige Sekō
Minister of Economy, Trade, and Industry



Welcoming Speech
Masami Yamamoto
Chairman of CEATEC JAPAN Executive Board

CEATEC AWARD 2016



The 6th CEATEC AWARD focused on the latest leading-edge technologies, products, and services exhibited at CEATEC JAPAN 2016 that are expected to contribute to the development of the IT & electronics industry as well as to the burgeoning CPS/IoT market and new markets yet to be created. This year, in line with the exhibition theme of "Connecting Society, Creating the Future", the review board picked the winners of two ministerial awards and four category awards.

Minister of Internal Affairs and Communications Award



Receiver for Advanced Wide Band Digital Satellite Broadcasting
Sharp Corporation



Minister of Economy, Trade and Industry Award



Retinal Projection Laser Eyewear
Fujitsu Limited



Grand Prix Life and Home Innovation Award

User Interface for Voice-activated Drawing Mitsubishi Electric Corporation



▼ Semi-Grand Prix Contactless Skin Sensor and Make-up Sheet Panasonic Corporation



▼ Semi-Grand Prix YOGA BOOK Lenovo (Japan) Ltd.



Grand Prix Town Life and Society Innovation Award

Automated Security Intelligence Technology to Defend System Against Unknown Cyber-Attacks Based on AI (Artificial Intelligence) NEC Corporation



▼ Semi-Grand Prix Driver Concentration Sensing Technology Omron Corporation



▼ Semi-Grand Prix Smart Hearing ReSound LiNX² GN ReSound Japan K.K.



Grand Prix Technology and Software Innovation Award

8K HEVC Real-Time Video Encoder Solution, Demodulator IC for Advanced Wide-Band Digital Satellite Broadcasting through the cable TV system, Single-Chip 8K HEVC Video Decoder SCH801A Socionext Inc.



▼ Semi-Grand Prix PrecisionCore Print Chip Epson Sales Japan Corp, Seiko Epson Corp



▼ Semi-Grand Prix World's Smallest 008004-size High-frequency Inductors Murata Manufacturing Co., Ltd.



Grand Prix
Green Innovation Award

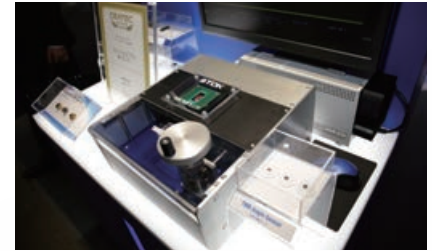
New Soil Environment Sensor that Measures Real-time Soil Data, which Contributes to Increase Productivity of Agriculture and Prevent Disaster
ROHM Co., Ltd., LAPIS Semiconductor Co., Ltd.



▼ Semi-Grand Prix
IoT-ReH Sensor
Panasonic Corporation



▼ Semi-Grand Prix
TMR Sensor
TDK Corporation



Review Panel's Special Award

"The world's first" Development of High Performance Haptic Prosthetic Hand – Artificial Realization of Human Motions by Using Haptic Transplant Technology –
Keio University – Haptics Research Center/Nozaki Laboratory



Review Panel's Overall Assessment

Reflecting the fact the CEATEC JAPAN has evolved into a CPS/IoT exhibition, this year saw the largest number of CEATEC AWARD applicants, representing a wide range of fields. The award-winning products – each of which demonstrated superb technology and true innovation – were chosen by the review board as being suitable for promoting to the world innovation originating in Japan.

In addition to those products and technologies that received awards, many of those submitted for the CEATEC AWARD demonstrated the extraordinary potential of the IT & electronics industry and in particular CPS/IoT, a field in which even further technological advancements are eagerly anticipated. It was clearly evident that such innovation can only have resulted from the hard work and commitment of the engineers and others involved in development.

Announcement and Award Ceremony

[MIC Award and METI Award Announcement and Award Ceremony]

Date: (Tue.) 4th October, 11:00-

Venue: Open stage in the exhibition site of CEATEC JAPAN 2016

[Announcement of category awards]

Date: (Wed.) 5th October

Method: Press release, CEATEC JAPAN official website, posted at the entrance to the venue

[Award ceremony for category awards]

Date: (Thu.) 6th October, 11:30-

Venue: Open stage in the exhibition site of CEATEC JAPAN 2016

Review Panel Members of the CEATEC AWARD 2016 (no specific order)

Kenichi Sato (Chairman, the Institute of Electronics, Information and Communication Engineers)
Tadao Nagatsuma (Director/International Coordination and Publicity, the Institute of Electronics, Information and Communication Engineers)

Yasuhiro Shiraki (Honorary Member of the Japan Society of Applied Physics)

Makoto Itami (Vice-chairman of the Institute of Image Information and Television Engineers)

Toshiyuki Nakata (The Information Processing Society of Japan)

Sei-ichi Shin (The Institute of Electrical Engineers of Japan)

Tetsuya Muroyama (Senior Commentator, Japan Broadcasting Corporation NHK)

Waichi Sekiguchi (Editorial Writer, Nikkei Inc.)

Tetsushi Hayashi (Chief Researcher, Nikkei BP ICT Innovation Research Institute/ Nikkei BP Institute of

Infrastructure / Nikkei BP CleanTec Institute, Nikkei BP, Inc.)

Makoto Nishisaka (Vice-President of Operations and General Manager, Industrial Technologies Business Sector, IT media Inc.)



The CEATEC INNOVATION AWARDS 2016, "As Selected by US Journalists"

Members of an independent advisory panel of US journalists in the fields of IT and home electronics toured the exhibition floor and evaluated the products, technologies and services exhibited at CEATEC JAPAN 2016. After careful deliberation, the panel selected those they felt to be clearly innovative and likely to have an impact on the US market.



Details of Awards

Field	Winner	Winning Product, Technology, or Service
Grand-Prix	Fujitsu Limited	Retinal Imaging laser Eyewear Technology
Home Entertainment	Aromajoin Corporation	Aroma Shooter (Mini)
Electronic Components	Panasonic Corporation	Flexible Lithium-ion Battery
Digital imaging	VRC Corporation	Shun'x Full Body 3D Scanner
Software, Computing and Networking	NEC Group	Security Support Solution
Mobile Technology	DJI Japan Inc.	Osmo Mobile
Transportation	Panasonic Corporation	Touch Panel Module with Rotary
Health and Household	Fujitsu Limited	Retinal Imaging laser Eyewear Technology
Smart Community	4R Energy Corporation/ ENERES Co., Ltd.	New Smart Project "FREEDOM"
Industrial Design	Honda Motor Co., Ltd.	Variable Design Platform (3D Printer)



Announcement and Award Ceremony

Date: (Thu.) 6th October, 10:15-

Venue: Open stage in the exhibition site of CEATEC JAPAN 2016

The list of judges comprising the CEATEC Innovation Awards 2016

Hubert Nguyen (Co-founder, Ubergizmo.com)

Aleksandr Kotlyar (Owner, ARKconcepts)

Tim Stevens (Editor at Large, CNET)

Richard Lai (Senior Editor, Engadget)

Auri Rahimzadeh (Author, and Owner, Auri's Ideas)

Keiko Tsuyama (Freelance Journalist, Ex-Kyodo News Correspondent)

Steve Greenberg (Reporter, NBC's Today Show)

Special Exhibition/Event

○ Organizers Special Exhibit Area ———



IoT Town

IoT Town, an area specifically designed by the organizer to better disseminate the new concept of CEATEC JAPAN 2016. Companies interested in creating new markets have convened at IoT Town to generate ideas for innovative business models and form new partnerships. This collaboration by participating companies has proposed as Japan's first "Form of Town", the concepts of which were disseminated to the world.

In addition to technology and product exhibits at exhibitor booths, presentations were made by exhibitors on their measures related to IoT and exhibit details at the Open Stage, which was setup in IoT Town.



IoT Town Participating Exhibitors

SECOM Co., Ltd., Rakuten Institute of Technology/Rakuten, Inc., JTB PLANNING NETWORK CO., LTD., Superhuman Sports Society, mealeap inc., TOMY Company, Ltd., Loftwork Inc., Nonprofit Organization for Research and Development of the Wearable Computer/Wearable Device User Group Japan, National Institute of Informatics/Hokkaido Univ./Osaka Univ. /Kyushu Univ., Mamezou Holdings Co., Ltd., Mamezou Co., Ltd., Open Stream, Inc., Mitsubishi UFJ Financial Group, Inc., The Bank of Tokyo-Mitsubishi UFJ, Ltd., Mitsubishi UFJ Trust and Banking Corporation, Mitsubishi UFJ NICOS Co., Ltd., kabu.com Securities Co., Ltd., Jibun Bank Corporation, ZEROBILLBANK Ltd., xenodata lab, Smart Idea, inc., Knowledge Communication Co., Ltd., AlpacaDB, Inc., YOHO BREWING, Inc., Bungei Shunju, Inc.



○ Partnering with Domestic Organizations ———



IoT Acceleration Consortium

Last year, the IoT Acceleration Consortium was established to prepare an appropriate environment for the promotion of both public and private investment in a future where IoT will play a key role.

At CEATEC JAPAN 2016, the consortium offered various planning and cooperative initiatives including interaction events, displays, and conferences that help to create new businesses using IoT, big data, and/or AI. Through the consortium, visitors had a place for networking where they were able to gather the latest information on IoT and related activities, both within and outside of Japan.



● Exhibits

IoT Lab Selection Finalists (5 exhibitors)

IoT Lab Global Exhibition (34 exhibitors from India, Israel, and ASEAN countries)

● B2B Matching Event

- Oct. 4 (Tue)
IoT Lab Connection (Smart home, Mobility)
- Oct. 5 (Wed)
Global Matching (29 exhibitors from overseas*, 41 from Japan)
IoT Acceleration Lab: Award ceremony for the "2nd Big Data Analysis Contest"
- Oct. 6 (Thu)
Pitch Sessions of selected ASEAN companies
Eco system by startups from Israel
Pitch Sessions of startups of selected Israel firms
- Oct. 7 (Fri)
Radical transformation of the IT industry and innovation in India
India's IoT market and investment opportunity
Presentation by ten selected IOT Startups in India

● Conferences

- Oct. 4 (Tue)
IoT Acceleration Consortium Convention/Panel discussion
"Next steps for IoT. World trends and future perspective"
- Oct. 6 (Thu), 7 (Fri)
The 6th Japan-EU Symposium on ICT Research and Innovation

All Japan Business Committee

By exchanging information on the Tokyo 2020 Olympics and Paralympics, the business community has been developing ways and means for it to contribute to the success of the summer games. At the same time, preparations are underway to ensure full use is made of this opportunity to create a lasting legacy for future generations. And as one part of this initiative, at CEATEC JAPAN we working to foster the new values and concepts that will underpin society of the future, using the exhibition to convey the appeal of the world-class technologies and services that hi-tech Japan is rightly proud of.

● Hard Legacy Model Course @ CEATEC

Development of recommended courses by writing up story based on technologies and services related to 24 themes in five hard legacy fields.

Participating model course companies:

Toyota, NTT Group, Panasonic, NEC, Mitsubishi Electric, Denso, Fujitsu, Honda, Sharp, Secom and Recruit

● Tohoku & Kumamoto Recovery Support Zone

One of the themes at the Tokyo 2020 Olympic & Paralympic Games is "recovery". In linkage with All Japan Business Committee, companies that suffered the earthquakes in Tohoku and Kumamoto regions were invited and participated through exhibition.

(17 exhibitors from Fukushima, Miyagi, Iwate, and Kumamoto Prefectures)



The Tokyo Organising Committee of the Olympic and Paralympic Games

Planning is focused on five pillars – Sport and Health; Urban Planning and Sustainability; Culture and Education; Economy and Technology; Recovery, Nationwide Benefits, and Global Communication. In each of these areas, the stakeholders are united and working hand in hand with CEATEC JAPAN as a way of promoting comprehensive action from the initial planning stages.

● Oct. 4 (Tue)

Guest Speech

Measures to Create Legacy for the Tokyo 2020 – Official Program of the Tokyo 2020 (economy/technology)

Rio to Tokyo 2020 Video Experience (Open Stage)



Chiba-city Strategic Special Zones Project

Collaboration with demonstration-experiment projects to show the features of Chiba-city Strategic Special Zones. Mayor of Kumagaya City took the rostrum at the Open Stage.

● Oct. 7 (Fri)

Chiba City's Home-delivery Service Using Drones – Measures Toward the Development of "Near Future Technology Demonstration/Multicultural City"



Collaboration with Economic Organizations/Industry Organizations

Delegations interested in IoT were enticed to the show with cooperation from the sponsor, supporter and assistant supporter organizations.

● Organizations that took observation tour

Japan Business Federation: Groups from Committee on New Industry and Technology, Groups from Telecommunication Technology Committee, Groups from Committee on New Business and Medium Enterprises; A group from the Society of Japanese Aerospace Companies; A group from the Japan Association of Corporate Executives; and A group from the Japan Chemical Industry Association.

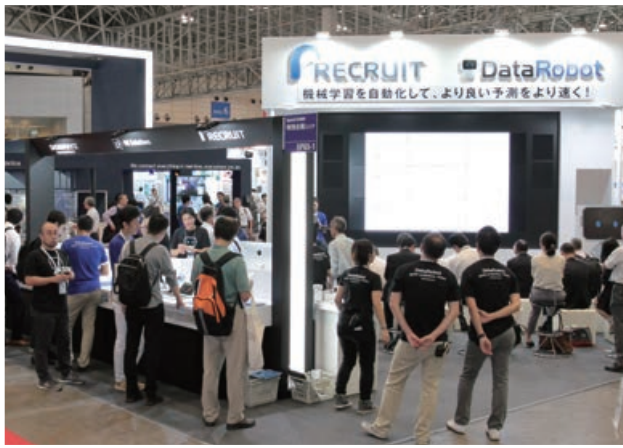


○ Business Collaboration

AI Pavilion

Cooperative entity: AIST (National Research and Development Institute of Advanced Industrial Science and Technology)

Special exhibits by leading AI companies showcased the latest in AI platform technologies including deep learning, natural language processing, and image analysis as well as the application of such technologies into agriculture, healthcare, medical, and marketing. Additionally, an AI Conference by CEATEC x AIST* was held at the International Conference Hall on Oct. 5 (Wed) and 6 (Thu).



NRI Hackathon 2016

Linked with Fintech (IoT x Money) Hackathon event based on the theme of Hack for Share – Viewing the new sharing mechanism, this event was an opportunity for financial technology startups. Startup Award in a form of presentation was held on Tuesday, Oct. 4 at Open Stage.

Cooperative entity: Nomura Research Institute (NRI)

Supportive entities: CEATEC JAPAN Executive Board, Tokyo Marine Nichido Fire Insurance, Nippon Life Insurance, Nomura Holdings, Mizuho Financial Group, Mitsubishi Corporation



Events to Promote the Spread of Fintech: Fintech Demonstration Experiments

Fintech Demonstration Experiment events took place for the promotion of Fintech with the cooperation by FINOLAB (startups who create new innovations in financial technology).

- Biometric authentication: Visitors experienced touch & pay
- Blockchain: Point rally game combining virtual currency and VLC technology

Partner: CurrencyPort/ Support: Fujitsu Limited

- Finolab Project: Promoting the Spread of Fintech corner (11 companies)



Symposium by Industry, Government, and Academia on Regional Revitalization Strategies

Symposium was held at CEATEC venue with collaboration by the Nihon Keizai Shimbun, and the Cabinet Secretariat under two themes of "creating new businesses in local communities" and "Recruitment and harness the talent of people with diversity"

- Oct. 6 (Thu)

Convention Hall A, International Conference Hall
Regional Revitalization Using IoT/AI



Related-industry Matching Event

Seminars on "expectations on IoT" and "direction of measures" from the perspective of textile industries, as well as simple exhibits and interaction event were held.

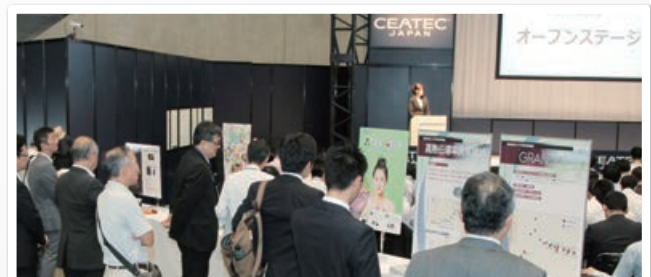
Cooperation: Japan Chemical Fibers Association (JCFA)

- Oct. 5 (Wed)

Open Stage

"The Latest Fiber Materials Contributing to a Smart Society"

Introduction of fabric and fiber materials that support the smart society under three themes, "Fibers that sense", "Fibers that connect" and "Fibers that create".



○ Special Exhibit

Venture & University Area

This area introduced the latest in innovative breakthroughs and services offered by startup venture companies and university research labs. A total of 139 startup venture companies and academic organizations participated during CEATEC JAPAN 2016, which was a 2.5x increase compared to the previous year. Also, participating exhibitors held various seminars at the Mini Stage, which was setup in the area.



New Smart Project “FREEDOM”

Planning: Promotion Project by 4R Energy

To achieve a zero-carbon society, the project proposed new energy and mobility technologies that link diverse industries such as EVs as a virtual power plants and moving storage batteries to enhance the usefulness zero-emission vehicles and maximize recyclable energy.

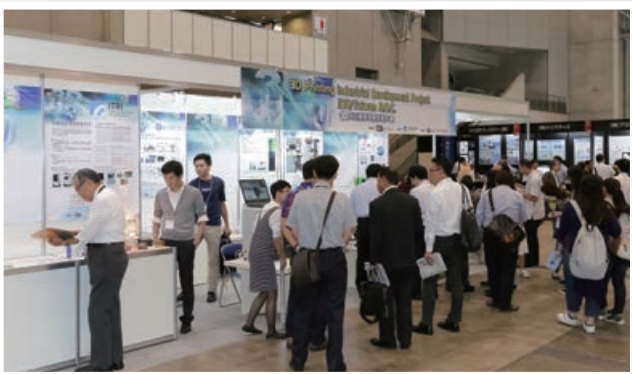
Exhibitors: 4R Energy Corporation, ENERES Co., Ltd., Kyocera Corporation, EcoPower Co. Ltd., NIXUS Hokkaido Nikko Telecommunications Co., Ltd., Meiji University, etc.



3D PRINTING/VR CONFERENCE & EXPO

Planning: Rising Media Inc.

Rising Media presents robotic, 3D printer and VR events at various locations of the world including New York, India, Shanghai, and Singapore. It setup an area to introduce their latest 3D printer and virtual-reality technologies and services at CEATEC JAPAN 2016.



NHK/JEITA Booth

Planning: NHK and Japan Electronics and Information Technology Industries Association (JEITA)

Exhibits included demonstration on 8K satellite broadcasting, a wide-variety of Hybridcast content, and introduction of a path towards practical-level 4K broadcasting on cable television. Also the popularizing high-resolution audio was introduced in an easy-to-understand way.



HATS PLAZA

Planning: Communications and Information network Association of Japan (CIAJ)

The HATS Conference exhibited demonstration of interconnection between latest communications equipment from a range of manufacturers, and offered stage presentations.



Cloud Computing Plaza

Planning: Cloud Business Alliance (CBA)

Exhibits included latest and leading-edge solutions and services in IoT, security, authentication linkage, public cloud, cloud operation and management, business support cloud, sales support cloud, facility, backup, etc.



Semiconductor/ Programmable Device Plaza

Planning: FPGA Consortium (NPO)

FPGA introduced underlying programmable electronic devices that support CPS/IoT.

This area showcased new businesses that can be applied for projects with inventive physical spaces and the development of diverse hardware platforms for a number of specific applications such as lower cost, higher performance as well as heat generation that can work for the diverse digital platforms of “kotozukuri”.

Floor Map

HALL 6

HALL 5

C CPS/IoT Technology & Software Area



P Special Exhibit Area

HALL 4

American State Offices Association

5P66-6 Ernst & Young Advisory
5P66-5 CES® 2017
5P66-4 U.S. Commercial Service JAPAN
5P66-3 Darktrace Japan
5P66-2
5P66 USA Showcase
5P66-9 Tesla Motors
5P66-8 Vuzix
5P66-7
5P66-1 OpenFog Consortium

COMMSCOPE JAPAN

National Institute of Advanced Industrial Science and Technology (AIST)
Artificial Intelligence Technology Consortium (AITC)
Hakuhodo DY Holdings
Logic Design
Real-Eyes Inc
SIGMAXYZ
Synergy Marketing
TOKYU AGENCY

5P65 AI Pavilion

5P65-1 Recruit Holdings DataRobot
5P65-8 5P65-7 Nextremer
5P65-9
5P65-6 NTTDATA Mathematical Systems
5P65-2 Preferred Networks
5P65-10 Lpixe
5P65-11 5P65-12 ifORCOM Tokyo NST Globalist
5P65-3 5P65-4 5P65-5 Datasection Farmnote FINC

4P70 IoT Acceleration Lab

Open Stage

4 Hall 3

4P54 IoT Town
SECOM
Rakuten Institute of Technology/Rakuten
JTB PLANNING NETWORK
Superhuman Sports Society
meleap
TOMY Company
Loftwork
Nonprofit Organization for Research and Development of the Wearable Computer
Wearable Device User Group Japan
National Institute of Informatics/Hokkaido Univ./Osaka Univ./Kyushu Univ.
Mamezou Holdings
Mamezou
Open Stream
Mitsubishi UFJ Financial Group
The Bank of Tokyo-Mitsubishi UFJ
Mitsubishi UFJ Trust and Banking
Mitsubishi UFJ NICOS
kabu.com Securities
Jibun Bank
ZEROBILLBANK
xenodata lab
Smart Idea
Knowledge Communication
AlpacadB
YOHO BREWING
Bungei Shunju

4P24 New Smart Project "FREEDOM"

4P23-6 MIYAGITANOI MFG.
4P23-7 YAGUCHI ELECTRIC
4P23-8 YAMASE ELECTRIC
4P23-9 Aizuk
4P23-10 ESQ.
4P23-11 TOSHI EB TORIKU
4P23-12 amakusakedadenki
4P23-13 Kyushu Semiconductor & Electronics Technology Innovation Association EDOFACTORY
4P23-5 Tohoku Magnet Institute
4P23-4 Tohoku Electronic Industrial
4P23-3 ANDEX
4P23-2 ATSYSTEM
4P23-1 TOCORG
4P23-17 Sulfur Chemical Laboratory
4P23-16 Y's Reading
4P23-15 HITOYOSHI ASANO ELECTRONICS
4P23-14 Synergy System
4P23 Tohoku & Kumamoto Recovery Support Zone
Cooperative entity
The Tokyo Organizing Committee of the Olympic and Paralympic Games
Toward the 2020

4 Hall 3

4P22 New Energy and Industrial Technology Development Organization

4P21 Information-technology Promotion Agency, Japan

Customer Lounge

4 Hall 3

CCPIT ECC
4P02-5 4P02-4
4P02-3 4P02-2 4P02-1
Shenzhen Center Enterprise
Liangang Optoelectronic Technology
Shenzhen Skywoo Technology
GUANGZHOU JINKAI ELECTRONICS
Hubei TKD Crystal Electronic Science and Technology

3DPRINTING@HOME/ROBOT@HOME/VR@HOME

4P01-18 4P01-15
4P01-14 4P01-13 4P01-11
Phrozen Formlabs
Union Technology International (Macao Commercial Offshore)
Shenzhen Esun Industrial

3D Printing Industry Promotion Project /IDB TAIWAN
ATOM 3D Printer
STARTEM Opto-Electronics
Kudo3D



5C48 KOA
5C28 VCCI
5C27 HUMAN SCIENCE
5C26 SHASHIN KAGAKU
5C25 Shizuoka Industrial Foundation
5C24 ANSeen SAW&SPR-Tech Medical Project Andipus Art Electronics PI Photonics Citians NALTEC ASTERONE SHOGI ELECTRIC Amoga Imaging
5C49 5C47 AMT Solution
5C45 5C44 The Chiba Chamber of Commerce and Industry
5C41 Futaba
5C46 BCN
5C40
5C38 SB Creative
5C39
5C40 Asahi Kasei Fiber & Textiles SBU
Gicho Business Communications

5C48 KOA
5C28 VCCI
5C27 HUMAN SCIENCE
5C26 SHASHIN KAGAKU
5C25 Shizuoka Industrial Foundation
5C24 ANSeen SAW&SPR-Tech Medical Project Andipus Art Electronics PI Photonics Citians NALTEC ASTERONE SHOGI ELECTRIC Amoga Imaging
5C49 5C47 AMT Solution
5C45 5C44 The Chiba Chamber of Commerce and Industry
5C41 Futaba
5C46 BCN
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5C38 SB Creative
5C39
5C40 Asahi Kasei Fiber & Textiles SBU
Gicho Business Communications

5C48 KOA
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5C26 SHASHIN KAGAKU
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5C24 ANSeen SAW&SPR-Tech Medical Project Andipus Art Electronics PI Photonics Citians NALTEC ASTERONE SHOGI ELECTRIC Amoga Imaging
5C49 5C47 AMT Solution
5C45 5C44 The Chiba Chamber of Commerce and Industry
5C41 Futaba
5C46 BCN
5C40
5C38 SB Creative
5C39
5C40 Asahi Kasei Fiber & Textiles SBU
Gicho Business Communications

5C33 Rozetta
5C32 Grow Will

4C19 ASAHI TECHNO SOLUTIONS

4C18 NHK Engineering System

4C17 SONNET GIKEN

4P72 IoT Lab Selection Finalist

4P71 IoT Lab Global Exhibition

4P53 Venture & University Area

4C02 VRC

4C01 RUBYCON

4C00 SUMTEC

4C09 4C08

4C10 Tescom

4C11 Pi-crystal

4C12 4C05

4C13 4C04

4C14 MicroVision

4C03 SilverStarJapan

Magellan Systems Japan

4D sensor

China Electronic Appliance Corporation

Shenzhen Healthcare Electronic Technology

Shenzhen Xinfu Electron

Shenzhen Jinghua Displays

Shenzhen Xinfu Electron

Shenzhen Xinfu Electron

Shenzhen Xinfu Electron

Shenzhen Xinfu Electron

Shenzhen Xinfu Electron

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Shenzhen Xinfu Electron



HALL 2

S Community Area

HALL 1

Fujitsu

1S27

Mitsubishi Electric

1S25

NEC

FOOD Court



2S74

HUAWEI
TECHNOLOGIES
JAPAN

2S50

DENSO

INNOBIZ ASSOCIATION

SAMDAL ELECTRIC Cubegensoft



Meeting space

COOLSSHA

INNOBIZ ASSOCIATION Gwelikorea

1S26-8

1S26-9

Digiparts

1S26-5

1S26-4

3HG00DS

1S26-3

1S26-2

1S26-1

IDT WORLD

1S24

Panasonic

1S04

NTT Group

1S03

Toyota Motor

1S02

Clarion

1S01

Hitachi

REPRESENTATIVE OFFICE IN JAPAN FOR TIANJIN
ECONOMIC TECHNOLOGICAL DEVELOPMENT

ICT RESORT NAGO (Nago City, Okinawa)

2S69

LECIP SLP

2S70

2S65

E-LEAD ELECTRONIC

HOBOT TECHNOLOGY

2S72

JEITA/Smart Drive
Technology

2S73

Shin Nippon
Air Technologies

Japan Space Systems

2S63

2S62

NINGBO FORWARD RELAY

2S64

2S60

PMT

The Wall Street Journal

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SUNGUM ELECTRONICS

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BSEF Japan

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NHK SPRING

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Nagano Prefecture

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Telkoku Printing Inks Mpg

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Yamaguchi Lab.,
Social ICT Research Center,
The University of Tokyo

T Town Area

2T16

2T15

Zeon

SofnetJapan

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AIOI-SYSTEMS

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WOYC Korea

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CurrencyPort

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Hiroaki Settlement
and Independence Area

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Aomori Prefectural
Government

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2S09

2S08

Exhibitor Directory (Alphabetical order / Those exhibitor names that are indented in the list are joint participants.)

Community Area Town Area Home Area CPS/IoT Technology & Software Area Special Exhibit Area

- 3H44 Adele Robots
- 5C24 Advanced Sputter LLC
- 2T08 AECOM, INC.
- 5C54 AEM COMPONENTS
- 5P65 AI Pavilion
- 5P65-3 Datasession Inc.
- 5P65-4 Farmnote Inc.
- 5P65-5 FINC Inc.
- 5P65-11 IFORCOM Tokyo Co., Ltd.
- 5P65-10 LPixel Inc.
- 5P65-8 National Institute of Advanced Industrial Science and Technology
- 5P65-9 National Institute of Advanced Industrial Science and Technology (AIST)
- Artificial Intelligence Technology Consortium (AITC)
- Hakuhodo DY Holdings Inc.
- Logic Design Inc.
- Real-Eyes inc
- SIGMAXYZ Inc.
- Synergy Marketing, Inc.
- TOKYU AGENCY INC.
- 5P65-7 Nextremer Co., Ltd.
- 5P65-12 NST Globalist Inc. Japan
- 5P65-6 NTTDATA Mathematical Systems Inc.
- 5P65-2 Preferred Networks, Inc.
- 5P65-1 Recruit Holdings Co., Ltd.
- DataRobot Inc.
- 2T17 AIOI-SYSTEMS CO., LTD.
- 3H54 ALL SENSORS ASIA PACIFIC K.K.
- 6C157 ALPS ELECTRIC CO., LTD.
- 6C127 AMARYLLO INTERNATIONAL B.V.
- 6C125 Amphenol FCI
- Amphenol TCS
- 5C47 AMT Solution Co., Ltd.
- 5C85 Anritsu Corporation
- 4C20 antant co., Ltd.
- 2531 Aomori Prefectural Government
- 2544 APERZA INC. AUTOMATION NEWS COMPANY
- 2H09 Artec Co., Ltd.
- 5C40 Asahi Kasei Corporation Fiber & Textiles SBU
- 4C19 ASAHI TECHNO SOLUTIONS INC.
- 1505 Association of Radio Industries and Businesses
- 2H06 ATNS GROUP, Inc.
- 5C46 BCN
- 2588 BizLink Technology Inc.
- 2577 BLACK BOX Network Services
- 5C75 Bluetooth SIG, Inc.
- ART PLUS PLUS PTE LTD.
- Focus Systems Corporation
- Gallogic Corporation
- Nordic Semiconductor ASA
- Qualcomm
- Quicoo Sound Inc.
- STMICROELECTRONICS K.K.
- TOSHIBA CORPORATION
- WHERE, Inc.
- 3H30 Blu-ray Disc Association
- 3H20 BMW Japan Corp.
- 2556 BSEF Japan
- 4P02 CCPITECC
- 4P02-1 GUANGZHOU JINKAI ELECTRONICS CO., LTD.
- 4P02-2 Hubei TKD Crystal Electronic Science and Technology Co., Ltd.
- 4P02-3 Liangang Optoelectronic Technology Co., LTD.
- 4P02-5 Shenzhen Cenker Enterprise Ltd.
- 4P02-4 Shenzhen Skywoo Technology Co., LTD.
- 3H57 CCW Co., Ltd.
- NPO Yamanashi ICT & Contact Support Center
- 6C135 CEIIRD in HOKURIKU
- 5C50 Chiba Prefecture
- 5C50 Chiba City
- CHINA ELECTRONIC APPLIANCE CORP.**
- 3H46-5 Apex Technology Co., Ltd.
- 3H46-4 FuturePath Technology (Shenzhen) Co., Ltd.
- 3H46-8 Hinen Electronics(Shenzhen)Co., Ltd.
- 3H46-6 Software and IC Foreign Trade Cluster of Zhuhai High-tech Zone
- 3H46-1 Shenzhen Jinter Digital Co., Ltd.
- 3H46-3 ZHONGSHAN CITY LITAI ELECTRONIC INDUSTRIAL CO., LTD.
- 3H46-2 Zhejiang Hiye Electronics Co., Ltd.
- 5C22-2 China Electronics Fair/China Information Technology Expo
- 5C22-5 Tone Parts Electronics Co., Ltd.
- 5C22-7 Yuehua Holding Group Co., Ltd.
- 5C22-6 Shenzhen Healthcare Electronic Technology Co., Ltd.
- 5C22-8 Shenzhen Jinghua Displays Co., Ltd.
- 5C22-1 Shenzhen Xinfuer Electron Co., Ltd.
- 2H03 CHRONIX Inc.
- 1502 Clarion Co., Ltd.
- 3H65 Cloud Computing Plaza
- Aspex Inc.
- Bplats, Inc.
- Cloud Business Alliance
- EWM Japan, Ltd.
- Future Facilities K.K.
- IPCORE Laboratory Inc.
- KAMOME Engineering, Inc.
- NEURONET Inc.
- Sanwa Comtec K.K.
- Thinca co., Ltd.
- TSUKAERU.NET CO., LTD.
- Vanten K.K.
- WebServiceDevelopment Inc.
- 3H21 Continental Automotive Japan KK, Continental Automotive Corporation
- 2H01 COSMO SOUND Co., Ltd.
- 2H07 Creative Technology Corporation
- 5C61 CTCSP Corporation
- Anoto K.K.
- MAEDA CORPORATION
- 6C119 CYBERNET SYSTEMS CO., LTD.
- 5C78 Dempa Publications, Inc.
- 2550 DENSO CORPORATION
- 3H67 DJI JAPAN Inc.
- 5C70 DSC
- 3H51 DX Antenna Co., Ltd.
- 5C102 ELIVISION
- 3595 EPSON
- Epson Sales Japan Corporation
- SEIKO EPSON CORPORATION
- 5C68 FA Products Inc.
- 3H50 FAMILY INADA CO., LTD.
- 2T01 FinoLab Project Fintech Corner
- 2T01-07 Caulis Inc.
- 2T01-09 Crowd Cast, Ltd.
- 2T01-10 CurrencyPort Limited
- 2T01-11 Liquid Japan
- 2T01-06 MoneySmart Inc.
- 2T01-02 Nayuta inc.
- 2T01-05 Ostiaries, Inc.
- 2T01-04 SMILABLE Inc.
- 2T01-08 social impact research Co., Ltd.
- 2T01-01 techbureau corp.
- 2T01-03 ZAISAN Net, Inc.
- 4C16 FLOSLIA INC.
- 6C140 FORUM 8 Co., Ltd.
- 4C12 4D Sensor Inc.
- 2T07 FRENCH TECH Tokyo
- 5C67 Fujikura Ltd.
- 2575 Fujitsu Limited
- 5C45 Futaba Corporation
- 5C56 Futec Inc.
- 4C13 G ONE Inc.
- 5C39 Gichio business communications Co., Ltd.
- 3H61 Glamo Inc.
- 2H08 GN Resound Japan K.K.
- 5C32 Grow Will Co., Ltd.
- 5C66 HAMAI ELECTRIC LAMP CO., LTD.
- 5C58 HAMAMATSU PHOTONICS K.K.
- 1523 HATS PLAZA
- <PBX>
- NEC Corporation
- OEI Electric Industry Co., Ltd.
- Hitachi Information & Telecommunication Engineering, Ltd.
- FUJITSU LIMITED
- PBX Telecom Server TILC
- <Multimedia>
- CIAJ Multimedia Communications Committee
- Multimedia Communication TILC
- <FAX>
- CIAJ Image Data Communications & Facsimile Committee
- Facsimile TILC
- <10G-EPON>
- Optical Access TILC
- <TTC>
- The Telecommunication Technology Committee
- 2585 Higashihiroshima City
- 2532 Hirosaki Settlement and Independence Area
- 2576 Hiroshima Television Corporation
- 1501 Hitachi, Ltd.
- 5C98 HOKURIKU ELECTRIC INDUSTRY CO., LTD.
- 2593 Honda Motor Co., Ltd.
- 2579 Hong Kong Trade Development Council
- 2574 HUAWEI TECHNOLOGIES JAPAN K.K.
- 5C27 HUMAN SCIENCE Co., Ltd.
- 3H45 ICSIL CO., LTD.
- Rainos Co., Ltd.
- 2548 ICT RESORT NAGO (Nago City, Okinawa)
- 3H31 IDEAQUEST Inc.
- 3H48 IFA (Messe Berlin GmbH)
- 5C82 Impress Corporation
- 2H16 InBody Japan Inc.
- 3H40 INFIC Inc.
- 2T02 Information Processing Society of Japan
- 4P21 Information-technology Promotion Agency, Japan
- 2H04 Inneos
- 1526-8 INNOBIZ ASSOCIATION
- 1526-3 COOLSSHA Co., Ltd.
- 1526-3 Cubegensoft. co. kr.
- 1526-2 Gwellikorea Co., Ltd.
- 1526-1 IDT WORLD CO., LTD.
- 1526-4 3HGOODS Co., Ltd.
- 1526-6 SAMDAI ELECTRIC CO., Ltd.
- 1526-9 Digiparts. Inc.
- 4P70 IoT Acceleration Lab Connection
- 4P71 IoT Acceleration Lab
- IoT Acceleration Lab
- Angkor E&C (Cambodia) Co., Ltd.
- Calms Technologies
- Datamicon Systems Sdn Bhd
- DF Automation & Robotics Sdn Bhd
- Electronic Nose Co., Ltd.
- Flutura Business Solutions Private Limited
- Glueck Technologies
- HearTracker
- Linkeddots Engineering Solutions Private Limited
- LOCANIX
- Magna BSP
- Malaysia Digital Economy Corporation (MDEC)
- MDT Innovations
- Perytons
- Pipeline Network
- Powertags
- Preva Systems Pvt Ltd
- Reneon Technologies
- SCADAfence
- SenseGiz
- Sol Chip Ltd.
- SOPHIC MSC SDN BHD
- Srishti ESDM Pvt Ltd
- Stesalit Systems Ltd
- TartanSense
- Techcare Innovation
- Teetr Data Pvt Ltd
- 3DSignals
- Vayyar Imaging
- Veriva Systems
- Voicett
- VP9 Vietnam Joint Stock Company
- Yuktix Technologies
- 4P72 IoT Acceleration Lab Selection Finalist
- aba Inc.
- Liquid, Inc.
- Phoenix Solution Co., Ltd.
- Routrek Networks, Inc.
- ZENRIN Co., Ltd.
- 4P54 IoT Town
- SECOM Co., Ltd.
- Rakuten Institute of Technology/Rakuten, Inc.
- JTB PLANNING NETWORK CO., LTD.
- Superhuman Sports Society
- meleap inc.
- TOMY Company, Ltd.
- Loftwork Inc.
- Nonprofit Organization for Research and Development of the Wearable Computer/Wearable Device User Group Japan
- National Institute of Informatics/Hokkaido Univ./Osaka Univ./Kyushu Univ.
- Mamezou Holdings Co., Ltd.
- Mamezou Co., Ltd.
- Open Stream, Inc.
- Mitsubishi UFJ Financial Group, Inc.
- The Bank of Tokyo-Mitsubishi UFJ, Ltd.
- Mitsubishi UFJ Trust and Banking Corporation
- Mitsubishi UFJ NICOS Co., Ltd.
- kabu.com Securities Co., Ltd.
- Jibun Bank Corporation
- ZEROBILLBANK Ltd.
- xenodata lab
- Smart Idea, inc.
- Knowledge Communication Co., Ltd.
- Alpacadb, Inc.
- YOHO BREWING, Inc.
- Bungei Shunju, Inc.
- 5C110 IT Verification Industry Association
- 2591 Iwate Manufacturing Pavilion
- AIO precision Co., Ltd.
- Cyber Core Co., Ltd.
- Iwate Industry Promotion Center
- Ohmori Chrome Co., LTD.
- TAKARA TOOL&DIE CO., LTD.
- Trustec Earth Co., Ltd.
- 2529 JAINAL SERVICE LIMITED,
- 6C151 Japan Aviation Electronics Industry, Limited
- 3H66 Japan Broadcasting Corporation / Japan Electronics and Information Technology Industries Association
- 6C143 JAPAN FEDERATION OF ELECTRONIC PARTS DISTRIBUTORS & DEALERS
- 2551 JAPAN REMOTE CONTROL CO., LTD.(JR PROPO)
- TOKYO AIRCRAFT INSTRUMENT CO., LTD.
- 2562 Japan Space Systems
- 2539 Jasmry Inc.
- BJIT INC.
- TB GROUP INC.
- 5C23 JB Advanced Technology Corporation
- 2565 JEITA/Smart Drive Technology
- 3H52 JENSON DISPLAY COMPANY LTD.
- 4C09 KELK Ltd.
- 5C80 Knowles Electronics Japan, K.K.
- 5C48 KOA CORPORATION
- 6C131 KODENSHI CORP.
- 4C15 KURIMOTO, LTD.
- 2569 LECIP SLP CORPORATION
- 5C106 Leister Technologies Co., Ltd.
- 2592 Lenovo (Japan) Ltd.
- 3H41 Licom Inc.
- 2H10 Life-Egg Corporation
- 6C148 MAC EIGHT CO., LTD.
- 4C14 Magellan Systems Japan, Inc.
- 5C103 MAGENCY
- 5C90 Maxgen Technology Co., Ltd.
- 2H15 Mercl Co., Ltd.
- 4C04 MicroVision, Inc.
- 6C145 Mie Electronics Co., Ltd.
- 3H58 Mighty Trading Corp., Ltd.
- 5C59 MIRAISENS, Inc.
- 3H63 Misawa Homes Institute of Research and Development Co., Ltd.
- Meijo University (ROBOT SYSTEM DESIGN LAB)
- Tokyo Metropolitan University (serBOTinQ HUB)
- 1527 Mitsubishi Electric Corporation
- 2580 Mitsubishi Diamond Industrial Co., Ltd.
- 6C155 MITSUMI ELECTRIC CO., LTD.
- 5C87 MOTOYA CO., LTD.
- 1507 MOUBIC
- 5C77 Murata Manufacturing Co., Ltd.
- 2547 Nagano Prefecture
- 6C144 National Instruments Japan Corporation
- 1525 NEC Corporation
- 6C142 NEC TOKIN Corporation
- 2530 NEP Inc.
- 4C07 Netagent Co., Ltd.
- 4P22 New Energy and Industrial Technology Development Organization
- 4P24 New Smart Project "FREEDOM"
- 5C112 NGK INSULATORS, LTD.
- 2590 NGK SPARK PLUG CO., LTD.
- 4C18 NHK Engineering System, inc.

- 2554 NHK SPRING CO., LTD.
 3H68 NICHICON CORPORATION
 2563 NINGBO FORWARD RELAY CORP. LTD.
 6C149 NINGBO KEPO ELECTRONICS CO., LTD.
 2584 NIPPON ANTENNA CO., LTD.
 5C73 NIPPON CHEMI-CON CORPORATION
 5C111 Nippon Electric Glass Co., Ltd.
 5C93 NISSHO DEVELOPMENT LIMITED
 3H59 NITTO KOGYO CORPORATION
 5C88 NSC Co., Ltd.
 1504 NTT Group
 5C55 OKI Engineering
 3H53 Omco Hlgashinihon Co., Ltd.
 3594 OMRON Corporation
 5P66-1 OpenFog Consortium
 5C84 O-WELL CORPORATION
 UNI-ELECTRONICS, INC.
 1524 Panasonic Corporation
 4C11 PI-crystal Inc.
 5C49 PLANEX COMMUNICATIONS INC.
 2564 PMT CORPORATION
 6C111 Programmable device Plaza
 Artwork Co., Ltd.
 Keysight Technologies GK
 Kumamoto University
 Overtone corporation
 RITA Electronics Ltd.
 Tokyo Metropolitan Industrial Technology Research Institute
 Verification Technology, Inc.
 2T18 QR Translator
 3H64 RayTron, INC.
 2542 RCL DISPLAY LTD.
 2T03 Recruit Communications Co., Ltd.
 2557 REPRESENTATIVE OFFICE IN JAPAN FOR
 TIANJIN ECONOMIC TECHNOLOGICAL DEVELOPMENT AREA
 6C156 ROHM Co., Ltd.
 Kionix, Inc.
 LAPIS Semiconductor Co., Ltd.
 5C33 Rozetta Corp.
 4C01 RUBYCON CORPORATION
 5C52 Santeck Japan Corporation
 5C38 SB Creative Corp.
 6C146 S-cubism Technology Inc.
 2H02 SENSIRION Japan Co., Ltd.
 3H69 seven dreamers laboratories, inc.
 3H70 Sharp Corporation
 5C26 SHASHIN KAGAKU CO., LTD.
 3H60 Shimane Institute for Industrial Technology
 2573 Shin Nippon Air Technologies Co., Ltd.
 5C53 Shinko Shoji Co., Ltd.
 5C25 Shizuoka Industrial Foundation
 ANSeeN Inc.
 SAW&SPR-Tech Co., Ltd.
 Medical Project Co., Ltd.
 Andplus Co., Ltd.
 Art Electronics Co., Ltd.
 Pi Photonics, Inc.
 Catana Corporation, LTD.
 NALTEC, Inc.
 ASTERONE Co., Ltd.
 SHOEI ELECTRIC CO., LTD.
 Amoga Imaging Inc.
 4C03 SilverStarJapan
 6C130 Socionext Inc.
 2T15 SofnetJapan Co., Ltd.
 4C21 SOFTAGENCY CO., LTD.
 5C41 SOFTPIA JAPAN
 2552 SOLID METAL PRODUCTS CO., LTD.
 4C17 SONNET GIKEN CO., LTD.
 6C152 Stanley Electric Co., Ltd.
 5C97 StradVision, Inc.
 4C08 SUMTEC, Inc.
 2559 SUNGMUN ELECTRONICS CO., LTD.
 1508 Superhuman Sports Society (meleap inc.)
 2586 SUZHOU IE-TECH CO., LTD.
 5C76 TABUCHI ELECTRIC CO., LTD.
 6C128 Tainai City
 6C179 TAITRONICS 2016
 6C178 Taiwan Electrical and Electronic Manufacturers' Association (TEEMA)
 2570 E-LEAD ELECTRONIC CO., LTD.
 2553 GENERAL JACK INTERNATIONAL (SAMOA) CO., LTD., TAIWAN BRANCH (SAMOA)
 2572 HOBOT TECHNOLOGY INC.
 6C176 LENOVO ELECTRONICS CO., LTD.
 6C180 WELL BUYING INDUSTRIAL CO., LTD.
 6C174 PRINTEC H. T. ELECTRONICS CORP.
 6C186 GI FAR TECHNOLOGY CO., LTD.
 6C189 SHANPU CO., LTD.
 6C169 WINSTAR DISPLAY CO., LTD.
 6C185 MAX ECHO TECHNOLOGY CORPORATION
 6C170 AJATO CO., LTD.
 6C184 WAL TER ELECTRONIC CO., LTD.
 6C167 JOULES MILES CO., LTD.
 6C182 JOINT TECH ELECTRONIC INDUSTRIAL CO., LTD.
 6C187 AKER TECHNOLOGY CO., LTD.
 6C188 AVERTRONICS INC.
 6C166 U.K. TECHNOLOGY CORP.
 6C173 T-GLOBAL TECHNOLOGY CO., LTD.
 6C171 VIKING TECH CORPORATION
 6C183 SUNLIKE DISPLAY TECHNOLOGY CORPORATION
 6C172 SONG CHUAN PRECISION CO., LTD.
 6C168 TAIWAN SINTERED METALS CO., LTD.
 6C141 TAIYO INDUSTRIAL CO., LTD.
 6C154 TAIYO YUDEN CO., LTD.
 5C64 TAJIMI ELECTRONICS, LTD.
 2T04 Takamatsu Convention & Visitors Bureau
 5C83 Tamura Corporation
 5C113 TDK Corporation
 5C72 TECHNO BRAIN COMPANY
 2545 Teikoku Printing Inks Mpg. Co., Ltd.
 5C60 Tektronix
 4C10 Tescom Corporation
 5C44 The Chiba Chamber of Commerce and Industry
 2560 The Wall Street Journal
 4P01 3DPRINTING@HOME/ROBOT@HOME/VR@HOME
 4P01-18 3D Printing Industry Promotion Project/IDB TAIWAN
 ATOM 3D Printer
 STARSEN Opto-Electronics Co., Ltd.
 Kudo3D Inc.
 4P01-15 Formlabs Inc.
 4P01-14 Phrozen Co., Ltd.
 4P01-13 Shenzhen Esun Industrial Co., Ltd.
 4P01-11 Union Technology International (Macao Commercial Offshore) Co., Ltd.
 5C62 TOHO KASEI CO., LTD.
 4P23 Tohoku & Kumamoto Recovery Support Zone
 4P23-9 Aizuk, Inc.
 4P23-12 amakusaikedadenki
 4P23-3 ANDEX
 4P23-2 ATSYSTEM CO., LTD.
 4P23-10 ESQ. LTD.
 4P23-15 HITOYOSHI ASANO ELECTRONICS CORPORATION
 4P23-13 Kyushu Semiconductor & Electronics Technology Innovation Association
 ECOFACTORY CO., LTD.
 4P23-6 MIYAGITANOI MFG. CO., LTD.
 4P23-17 Sulfur Chemical Laboratory Inc.
 4P23-14 Synergy System Co., Ltd.
 4P23-4 Tohoku Electronic Industrial Co., Ltd.
 4P23-5 Tohoku Magnet Institute Co., Ltd.
 4P23-11 TOSEI EB TOHOKU Co., Ltd.
 4P23-7 YAGUCHI ELECTRIC CO., LTD.
 4P23-8 YAMASE ELECTRIC CO., LTD.
 4P23-16 Y's Reading inc.
 2528 TOKAI COMMUNICATION INDUSTRY CO., LTD.
 5C105 TOKAI OPTICAL CO., LTD.
 5C65 Tokyo Weld Co., Ltd.
 5C69 TOMOEGAWA CO., LTD.
 2538 TOYO ELECTRIC CORPORATION
 1503 Toyota Motor Corporation
 6C153 Tyco Electronics Japan G.K.
 6C150 UI ELECTRONIC INDUSTRY CORP.
 SUMIKO TEC CO., LTD.
 3H35 ULIS
 5P66 USA Showcase
 5P66-2 U.S. Commercial Service JAPAN
 5P66-4 American State Offices Association
 5P66-6 Ernst & Young Advisory Co., Ltd.
 5P66-7 COMMSCOPE JAPAN K.K.
 5P66-5 CES* 2017
 5P66-3 Darktrace Japan K.K.
 5P66-9 TeslaMotors
 5P66-8 Vuzix Corporation
 2T12 Utop Electronic (Guangzhou) Co., Ltd.
 4C05 VAL LABORATORY CORPORATION
 5C28 VCCI Council
 4P53 Venture & University Area
 4P53-03 ALLIED CONTROL CO., LTD.
 4P53-09 aromajoin corporation
 4P53-06 caiba Ltd.
 4P53-15 COLLOIDAL INK CO., LTD.
 4P53-22 Cybertech Corporation
 4P53-35 Digital Capsule Inc.
 4P53-11 ERI, Inc.
 4P53-37 FORTE Co., Ltd.
 MOVIMAS
 4P53-21 Garapon inc.
 4P53-36 GRAPS Co., Ltd.
 4P53-43 ITALL INC.
 4P53-01 Kanagawa Institute of Technology,
 Department of Information and Computer Sciences
 Katsura Laboratory, Keio University
 Keio University Haptics Research Center
 4P53-12 Linkers Corporation
 4P53-05 mammy go
 4P53-90 Mashup Awards IoT
 4P53-24 Meijo University
 4P53-20 Morisawa Inc.
 Morning Pitch Project
 4P53-56 blincam
 4P53-58 BONX
 4P53-71 cado
 4P53-70 Coorde7
 4P53-66 dricos
 4P53-52 GOCCO
 4P53-62 Green Continental
 4P53-72 H2L
 4P53-54 INUPATHY
 4P53-68 KLASICInc
 4P53-65 Linough
 4P53-51 MAMORIO
 4P53-63 MASHROOM
 4P53-59 NetLED
 4P53-60 Novars
 4P53-53 otta
 4P53-69 Rei-Frontier
 4P53-57 Skydisc
 4P53-67 SPACEVISION
 4P53-55 Triple W
 4P53-64 WALK INSIGHTS
 4P53-02 Network Engineering Laboratory, Faculty of Environmental
 and Urban Engineering, Kansai University
 4P53-04 Noa. Co., Ltd.
 4P53-74 NRI HACKATHON@CEATEC STARTUP AWARD
 4P53-80 BearTail Inc.
 4P53-79 Nowcast Inc.
 4P53-78 PLAID, Inc.
 4P53-82 Research Institute of Systems Planning, Inc.
 4P53-76 ROBOFUND CO., LTD.
 4P53-77 SIVIRA Inc.
 4P53-81 WACUL INC.
 4P53-18 Parity Innovations Co., Ltd.
 4P53-91 Recruit Holdings
 4P53-25 Robotic Increase Center
 4P53-10 Routrek Networks, Inc.
 4P53-34 SELTECH CORPORATION
 4P53-23 TAKUMI Solutions Limited
 4P53-33 TOKYO SYSTEM HOUSE CO., LTD.
 4P53-13 TOME R&D Inc.
 4P53-08 Trimatiz Limited
 4P53-07 Tsukuba Technology Co., Ltd.
 4P53-44 Vince Associates
 apriori, inc.
 4P53-39A BarnardSoft Co., Ltd. *Only 10/4-5
 4P53-26A Boxyz, inc. *Only 10/4-5
 4P53-14A Infosocket co., Ltd. *Only 10/4-5
 4P53-17A JIROKICHI SHOUTEN K.K. *Only 10/4-5
 4P53-29A Kobe Digital Labo Inc. *Only 10/4-5
 4P53-41A Temari *Only 10/4-5
 4P53-40A The University of Aizu *Only 10/4-5
 4P53-38A Tobu Business Solution Corporation *Only 10/4-5
 4P53-30A Up Arrows Inc.
 4P53-18 4dbalance Co., Ltd. *Only 10/6-7
 4P53-31B Ambi Labs Limited *Only 10/6-7
 4P53-39B Ambi Climate
 4P53-28B Aroma Bit, Inc. *Only 10/6-7
 4P53-16B Information Science College *Only 10/6-7
 4P53-41B Kanazawa University *Only 10/6-7
 4P53-40B Kobe University Kimura Research Group *Only 10/6-7
 4P53-27B Kyusyu Institute of Technology *Only 10/6-7
 Hibikino Denshi CO., INC.
 4P53-30B Power Management Co., Ltd. *Only 10/6-7
 4P53-38B Project of Demand Response Design *Only 10/6-7
 4P53-14B Sansan, Inc. *Only 10/6-7
 4P53-29B tecnico *Only 10/6-7
 4P53-26B The University of Tokyo Interfaculty Initiative in
 Information Science *Only 10/6-7
 4P53-32B Thirdware Inc. *Only 10/6-7
 4P53-17B Yokohama Medical Information College *Only 10/6-7
 3H39 VIP GLOBAL CO., LTD.
 4C02 VRC Corporation
 2T09 WOYC Korea
 2533 Yamaguchi Lab., Social ICT Research Center, The University of Tokyo
 2H14 Yamato Co., Ltd.
 6C120 YAMATO Electronic Co., Ltd.
 2H11 YUJIN ROBOT
 2H19 Yukai Engineering, Inc.
 2T16 Zeon Corporation
 5C51 Z-Wave Alliance

Exhibition Trends

CEATEC JAPAN 2016 was held from October 4 to 7, 2016 at Makuhari Messe in Chiba, Japan. As the show evolved into a next-generation event, a comprehensive CPS/IoT exhibition in 2016, CEATEC JAPAN 2016 has seen a drastic increase in participants and visitors—648 exhibitors (up 22.0% from the previous year) and 145,180 registered visitors (up 9.1% from previous year)—and ended with a great success. In addition to such change in exhibitors and visitors, the entire venue made a big transition in terms of methods of exhibition and presentation content. Inspiring exhibits full of hope for the year 2020 and content rich seminars with interesting topics gathered at the venue and took a good start as a venue to disseminate concepts and new business trends looking to the future of CEATEC JAPAN.



At CEATEC JAPAN 2016, the exhibition featured new zoning—Home, Town, and Community—to reflect the different realms of CPS/IoT usage and development. The most prominent exhibits this year were artificial intelligence (AI), robots and technologies and products related to IoT, as well as a wide variety of near future proposals related to IoT was made including infrastructure, supply chain, the town itself & housing, and in the fields of medicine to agriculture.

● “Connected” home appliances that feature both cutting-edge AI and the IoT.

In society, home, and urban area displays, it was proposals for “connected” home appliances that combine the IoT with AI (artificial intelligence) that drew attention.

Panasonic Corporation offered numerous proposals themed around “Transformation IoT brings to Lifestyles and Business”. In proposals for living and retail spaces of the future with transparent



displays linked to the cloud, the company utilized self-luminous displays with transparent screen backs installed in many locations within the living space. Many guests were surprised by both the transparency and the slim design of technology such as glass cabinets that transformed into living room monitors. A “Sake and Wine Cellar” exhibit featuring an assembly of transparent displays on all-glass surfaces that showed the temperature of each shelf on the monitor and the cooking recipes from the cloud for dishes suitable for the types of alcohol stored inside, demonstrating a high level of practical usability.

Sharp Corporation introduced its COCORO+ Product Lineup, which utilizes AIoT cloud technology to have electronics learn about the lifestyles of their users, transforming home appliances from tools into lifestyle partners. The company offered proposals for an AIoT Smart Home featuring linked televisions, refrigerators, air conditioners, microwave ovens, and other products.

● Communication robot in which AI use shines.

The exhibition featured many proposals for communication robots with embedded AI. Developed as a new form of home appliance that grows closer to the aspirations people who utilize the products of Sharp Corporation, “Home Assistant” functions to connect home appliance products to services in the center of the home. The technology engages in dialogs with users to assess their needs, and manipulated the relevant home appliances, etc. to meet them. A “Job Pack” was on show, intended to bring commercial applications to the RoBoHoN robot phone that was the subject of much discussion last year. Sharp capitalized on RoBoHoN’s ability to connect to the network via a 3G/LTE connection from any location to offer proposals for its use in reception and customer service roles in stores, and for looking after people.

Hitachi, Ltd. announced its EMIEW3 humanoid robot. 90 cm high and weighing 15 kg, EMIEW3 is capable of autonomous travel, and can right itself automatically if it should tumble. This robot is equipped with multiple cameras and sensors, and can link with surveillance cameras to detect people’s expressions and movements, approaching people and talking to them on its own initiative. The company says that EMIEW3 will assess whether people in locations such as public spaces and commercial facilities require support and move to them as needed to offer customer service and guidance.

Toyota Motor Corporation exhibited its KIROBO Mini, which is a conversational companion themed on the motif of the astronaut



robot KIROBO that has been on the international space station since 2013. Fujitsu Limited also exhibited their mediator robot RoboPin. The mediator robot is intended to position itself as an intermediary between people and people, and people and systems, helping to build better relationships between them. In the area IoT Town, Bank of Tokyo-Mitsubishi UFJ, Ltd. displayed its humanoid robot NAO. NAO is able to discern many different words, and perform task such as helping people with ATMs. The bank says that in future they plan to develop NAO further, linking it with an AI to provide higher level responses.

● Cutting-edge monitor displays offering capabilities such as 8K/HRD compatibility, ultra-slim profile, and transparency.

Sharp Corporation displayed 27-inch 8k (7680x4320) HDR monitors, and 85-inch 8K/HDR models in its IGZO lineup. For free-form displays, the company exhibited smartphone concept models equipped with Corner R IGZO displays. NHK JEITA exhibited “near-future sheet-type displays” developed in a collaboration between NHK, South Korea’s LG Display Co., Ltd., and Astrodesign, Inc. These displays, combining four 65-inch sheet-type 4K organic EL panels to create a single display equivalent to a 130-inch 8K screen, astonished visitors with their astounding 3 mm thickness. The “transparent screen” from Panasonic Corporation features a newly-developed photo chromatic film embedded in glass, allowing images and video to be projected on it with approximately 70% transparency by utilizing an electric charge. Panasonic is considering its use in show windows and amusement facilities. This was a unique proposal for transforming the concept of displays. Lenovo Japan displayed its CPlus smartphone, which features a bendable screen that can be wound around the arm in the manner of a bracelet. The “Electrostatic Touch Panel Module with Rotary/ Push Encoder” from Panasonic Corporation is an original idea for placing physical rotary buttons on an LCD screen, and selected by the panel of US journalists in IoT to receive the Innovation Award in the “Transportation” category.

● Two technologies aimed at commercializing 4K/8K in broadcasting won the CEATEC AWARD 2016.

The Sharp Corporation booth featured displays of high-bandwidth satellite digital broadcast receivers specifically for super high vision broadcasting. These are the first receivers in the world compatible with 22.2 channel audio output, a



characteristic unique to 8K, and won the METI Award at CEATEC AWARD 2016, which is given in recognition of outstanding technologies, products, and services.

Socionext Inc. exhibited their 8K HEVC Real-time Video Encoder Solution along with two LSIs, the SC1501A for receiving Advanced Wide-Band Digital Satellite Broadcasting and the SCH801A for decoding 8K HEVC videos. The solution and LSIs won the Grand Prix award in the Technology and Software Innovation Category of CEATEC AWARD 2016.

● A range of technologies for a more software-centric approach to look after people.

Last year there were many technologies in evidence that made use of proposals for sensing technologies to watch over people. This year, however, a great many proposals featured unique approaches.

Panasonic Corporation’s Listnr is a system capable of differentiating between four different emotions in infant voices in the room, and conveying them to family members via smartphones.



Now a familiar sight at the CEATEC JAPAN venue, BOCCO robot from YUKAI Engineering, Inc., can perform voice and text messaging via smartphones between family members at home and those outside the home. It is also capable of utilizing sensors to detect and notify the family member about the opening and closing of the front door. This means that in addition to communications, BOCCO also functions as a robot to look after people. The SIM-equipped model has now arrived, allowing direct connection to the internet. Additionally, TAMURA Corporation offered a proposal for a system to watch over people to provide care in locations such as hospitals and facilities for the elderly, without inflicting any stress on the people for whom it is intended.

● Proposals for personal mobility—a previously fragmented genre

There were a range of proposals offered for personal mobility. Honda Motor Co., Ltd. offered the MC-β a compact four-wheel mobility device intended to work in concert with the commercial telematic service Honda Biz LINC to increase the efficiency of delivery operations. The company exhibited its Micro Commuter Toshimaya model, which has a body customized for Toshimaya Co., Ltd., a company known for its Hato-Sablé Cookies. Kabuku, Inc. was responsible for the design, and created the exterior and the unique emblem using a 3D printer, demonstrating the superb customizability that makes special order designs possible.



For indoor use, Hitachi, Ltd. offered its next-generation ROPITS personal mobility device, which has its maximum speed capped at 6 km/h, and is intended to be used in conjunction with the EMIEW3. This is a highly autonomous system, utilizing laser sensors to detect obstacles and estimating the position of the vehicle based on map data, and is currently undergoing proof-of-concept testing in Tsukuba city.

● A range of proposals for monitoring/alleviating traffic congestion and traffic observation.

One issue as important as mobility is that of traffic congestion measures in built-up areas. Fujitsu Limited offered a proposal for traffic congestion measurement using AI. This proposal can predict traffic congestion using AI smart urban monitoring and SPATIOWL (a location-based service), through a comprehensive analysis of events and incidents occurring across a wide area. Murata Manufacturing Co., Ltd. exhibited its Traffic Counter System. Mainly targeted at developing countries, this system acquires traffic information from sensors and transmission modules, and sends data to the cloud and to smartphones.

On the mobility management front, Fujitsu Limited proposed its Mobility Management Using Location Information, which analyzes reasons for traffic congestion and jams from a range of standpoints, including such factors as time and geographic conditions, and provides the users with support to ascertain the reasons for delays and traffic jams and to improve operations.



Mitsumi Electric Co., Ltd. presented a reference exhibit of Absolute Pressure Sensors that measure absolute pressure values by using piezo-resistive method to detect minute distortions in diaphragms. The MMR931AA on display offers world-class performance, with low temperature and pressure dependence, and a pressure absolute accuracy of $\pm 30\text{Pa}$. Conversely, high-pressure resolution performance of 0.95PaRMS

can be achieved on the MMR931BA, which means the sensor is capable of distinguishing height differences of 8.07 cm when converted into an altitude. In terms of applications, these sensors can be used for navigation for pedestrians indoors where GPS signals are not available, or for floor navigation that tells users which floor they are on. They could also be used in compact weather observation modules that serve to improve the precision with which phenomena such as sudden torrential rain storms can be predicted, or to provide support for autonomous flight in drones.

● Numerous technologies for identifying people with greater speed and precision

In biometric technology, Hitachi, Ltd. displayed a "finger vein room entry/exit control system" that utilizes finger vein analysis, the easiest and most reliable biometric information to obtain, for door opening and closing and record management. NEC's Walkthrough Facial Recognition System is a super high-speed facial recognition system that, as the name suggests, does not require people to stop in front of the camera. Utilizing the NeoFace facial recognition engine, this system compares facial images from cameras installed in gates with pre-registered images to identify people. NeoFace was utilized at the Rio Olympic and Paralympic Games, where it was used to manage the entry of media to venues, and the company hopes to expand its use further in future. NEC also introduced otoacoustic recognition system. This system utilizes the shape of the ear, which is different in every person, to identify people in just one second by analyzing the results of the echoes of an identification tone emitted by a speaker built into an earphone.



● Crime prevention technologies that arouse interest ahead of the Olympics

NEC introduced a security support solution that uses wearable cameras for image distribution, and which has been used by the running police in the Tokyo Marathon. Police officers fitted with wearable cameras run the marathon course together with other runners, transmitting images in real time using video clarification technology. The cameras themselves are extremely sensitive, providing images of a level that allow them to be used for security at night, and selected by a panel of US journalists for Innovation Awards under Software, Computing, and Networking category. NEC's "Image analysis for crime prevention and rapid investigation" is a technology for identifying suspicious persons from images taken by multiple security cameras. Previously image analysis required the faces of those people warranting attention to be registered in advance. This technology, however, can perform pattern extraction that will identify people who have appeared at

the scenes of multiple incidents.



NEC's "Autonomous learning system malfunction detection technology for utilizing AI to counter unknown cyber-attacks" features AI that learns the normal operations of PCs and servers, and through constant comparison with this behavior, allows attacks to be dealt with even if they are unknown. This technology was chosen for the Grand Prix award in the CEATEC AWARD 2016 under Town Life and Society Innovation category.

Fujitsu Limited offered "Smart city monitoring through AI technology," a technology that applies AI to image analysis for use in multiple applications such as the movement of people, the flow of cars, and security monitoring, from a single image. Fujitsu hopes to allow real time comprehension of the movement of an entire city.

● HEMS, BEMS, Smart-Grid, Hydrogen, and More— New Ideas for Increasing Energy Efficiency

The Toyota Motor Corporation drew attention with the world's first commercial-type vehicle FCV Mirai, which was cut open to display the inside of the car. They also displayed a fuel cell powered forklift, which was a model developed for a special joint project between Toyota Motor Corporation and Kanagawa Prefecture, the aim of which is to promote a low carbon, hydrogen powered society. In the plan, energy from a wind-farm in Yokohama is used to produce hydrogen fuel, which is carried to a factory via a hydrogen charging vehicle used for hybrid trucks, where the fuel cell would be used for the forklift.

Nichicon Corporation also showed off advances towards a hydrogen-fueled society with their high speed chargers for EV/PHV and their V2H system, which allows energy from EV and other sources to be used in the home.

Panasonic Corporation exhibited their Super Low Energy Use IoT Compatible Hydrogen Sensor. This tool allows for the detection of hydrogen leaks, and is an important step towards a hydrogen powered society which prioritizes both safety and peace of mind,



while also being much more energy efficient than conventional methods.

With HEMS, BEMS and Smart Grid Technologies, Mitsubishi Electric Corporation demonstrated their DIAPLANET TOWNEMS system, which aims to support an energy efficient and pleasant lifestyle as a smart life EMS, and they also showed ZUTTOCITY, which was an implementation of this project in Amagasaki city. 4R Energy Inc./Eneris Co., Ltd., and others collaborated for the exhibit "New Smart Project FREEDOM – Working towards a zero-carbon society with ideas for a new energy community based on storage batteries and VPP", which works to connect home-use storage batteries and reusable energy sources through the IoT, reimagining whole communities as VPPs (Virtual Power Plants) in which energy lending and locally produced and locally consumed energy would be possible. For this project they were picked by the panel of US journalists to receive the Innovation Award in the 'Smart Community category.

Nichicon Corporation also displayed a storage battery system linked to a solar panel system, a high-voltage resistor for solar and wind energy generation, high ripple-current aluminum condensers, film condensers, and other power electronic devices.

● Technology Helping to Make Self-Driving Cars and Driving Support Systems into Practical Use

This time there were also opportunities at every turn to see the sort of self-driving vehicle and driving support technology systems that have been receiving so much attention lately.

Clarion Co., Ltd. presented their Smart Cockpit system, a system based on HMI technology which uses displays, voice guidance, and vibrations to communicate important information to a driver by engaging their five senses. Additionally on display were the SurroundEye system, which uses video from 4 cameras on the vehicle stitched together seamlessly to assist in a driver's view of their surroundings, and other advanced driver assistance systems which is a joint project by the Hitachi group including Clarion. A demonstration of the Shinsui Coat also drew attention, with a cleaning solution which can help prevent droplets and dirt from sticking to a camera lens and obscuring the picture, rendering conditions difficult for driving assist and image recognition technologies.

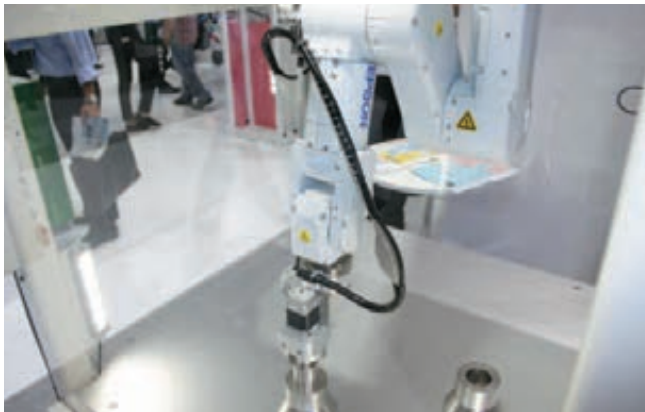
Mitsumi Electric Co., Ltd. displayed the 79 GHz Milliwave Radar, which they are developing with plans to release in 2020. Compared with a camera, this system is less susceptible to fog, rain, or other unfavorable weather conditions, and is also receiving lots of attention for its ability to reliably detect pedestrians, even at night. Omron Corporation displayed their Driver Concentration Sensing Technology. This technology combines the company's



s high precision visual sensing tech with their chronologic deep learning systems to determine the driver's state based on a video feed. This technology garnered high attention as an important part of creating a system which knows when to switch between automatic driving and hand-controlled driving.

● Industrial Robots Created to Work Alongside People

The Epson Sales Japan Corporation displayed a small-sized Industrial Use Robot, which featured 6 axes. The S250H Haptic Sensor succeeded in realizing the fine power control of an experienced craftsman, which was something previously been hard to capture in automation.



The Denso Corporation exhibited multiple robots. One of these was their New Denoute Kun (New Mr. Electric Checkmate) robot. This robot was used in widely covered challenge against a professional Shogi (Japanese chess) player, and in addition to getting a piece promoted in 7 seconds, its quiet movement also preserves the air of dignity in the game. A collaboration robot COBOTTA is an arm robot that can operate directly next to or across from a human worker without the need for a safety fence. A demonstration for this robot was to have one robot use a camera mounted on its arm to film and analyze the face of a visitor, while the other robot drew a picture of that person. Another example of the unique technology on display from Denso was the auto-tracking surgery robot iArmS. For use in long surgeries, including those in neurology, the robot arm can follow and provide a resting place for the doctor's arm.

● Consumer Technologies in the Community and Home Areas, Sparkled with Creativity

At CEATEC JAPAN 2016, there were many examples of creative new products for use in the Community, Town, and Home Areas. Panasonic Corporation's Human Body Communication system creates an electric-field around the body, and then uses field modulation to transfer data. The company demonstrated by having one staff member wearing a wristband version of the device, shook hands with another staff member, whose LEDs would then light up in the color indicated by the wristband. In the future the company wants to further develop the technology to allow for exchange of information such as business cards, which take place simply by shaking hands. Panasonic Corporation's Non-contact Skin Sensor & Makeup Sheet uses a camera mounted behind a mirror, which senses the user's face for wrinkles, pores, and other marks, as well as

determine their placement and coloring. The sensing system will then use a special printer to print out concealer onto a medical-grade nano-level ultra-thin adhesive sheet. As an example of the company's technology which allows for printing film from the front of an OLED TV, this product has the potential to change the basics of makeup 'from spreading to sticking on'.

Another product on display at the Panasonic booth was drawing the attention of those in the film industry – the 3D actuator. With a single motor, the device is able to move on 3-axis of tilting, panning, and scrolling, to facilitate the creation of clear, focused video. DJI Japan, Inc. also displayed a product in the same field, with their handy stabilizer, the Osmo mobile. This is a 3-axis stabilizer to which smartphone can be attached, and the product received an Innovation Award from the panel of US journalists in the Mobile Technology category.

The Epson Sales Japan Corporation displayed their PrecisionCore print chip. Based on next-generation MEMS (Micro Electro Mechanical Systems) technology, this chip has the potential to revolutionize the world of printing. The company also drew attention with their PaperLab display, which allowed customers to recycle their own paper.



The YOGA BOOK released by Lenovo Japan drew a great deal of attention as well. This product is a 2-in-1 tablet with a full-flat keyboard which can be used as a pen tablet but also as a haptic keyboard, which vibrates slightly to give feedback to the user while typing, giving a feeling similar to typing on a physical keyboard. The device also remembers the user's typing habits, and facilitates the touch-typing process.

● Various Technology Ideas to Help Make the IoT a Reality

Many ideas were presented at CEATEC JAPAN 2016 centering on CPS/IoT Technology & Software. In the Area, there were displays of materials and electronic parts, as well as processing technology and related software essential for CPS and the IoT. One of the first things to notice was the many ideas for supporting IoT development.

Hitachi, Ltd. introduced several ideas, including their IoT platform ThingWorx, which allows developers to create IoT applications quickly through a drag-and-drop interface for GUI parts and data, and their IoT intelligence Flutura, which allows for business application software to be completed at less than a third of the time required by conventional methods.

Alps Electric Co., Ltd. introduced the IoT Smart Module Next-generation Development Kit and Management System, where they showed the product's potential in a display showcasing

how it could be used for ‘farming ICT’ applications by facilitating energy efficient rice paddy management.



ROHM Semiconductor continued from their display last year by showing ROHM Sensor Evaluation Kit, now with an even more exciting lineup that includes a gyroscope, 10-axis motion module, and optical sphygmographic sensor. The use of these technologies in future IoT development is certainly something to be excited about.

● Cutting Edge Electronic Devices to Support the IoT and CPS

At CEATEC JAPAN 2016, many exhibitors showed their latest electronic devices and development projects.

Murata Manufacturing Co., Ltd. showed the components they had developed as a critical part of bringing the IoT to reality, including a communications module, various sensors, and a power module. They also introduced collaborative projects they have worked on with other companies. They also released their World’s Smallest, 0201-Size High Frequency Inductor at the venue.



Nichicon Corporation introduced their aluminum electrolytic capacitor, designed specifically for applications in powertrains and safety mechanisms, as well as a film capacitor. Hamamatsu Photonics K.K. made full use of their strength in optic sensors, and exhibited mainly optical products for use in vehicles.

TDK Corporation exhibited magnetic sensors (essential for IoT products), MEMS sensors and other sensors, and the IC integrated substrate SESUB (Semiconductor Embedded in SUBstrate) used to make the world’s smallest Bluetooth modules. Their TMR sensor was given Semi-Grand Prix in the Green Innovation category of the CEATEC AWARD 2016. TDK also held a demonstration of

their TMR angle sensor in which participants could stand on a balancing board. By standing in the middle of a see-saw and trying to keep as flat as possible, it was possible for them to get a better sense of the functions of an electronic device with which most people are unfamiliar. This easy to understand format made this exhibition especially popular.

Taiyo Yuden Co., Ltd. exhibited the following products and technologies; the Odor Sensor developed together with Aroma Bit, a “variable capacity element” for wireless charging systems that can retain its optimal charging capacity even if the reception and transmission units are $\pm 20\text{mm}$ away from their intended spots, a “multi-layer piezoelectric actuator technology” that is capable of alerting by generating minute sensation to the user’s fingertips or vibrating a steering wheel, and a “visible light transmission technology”. The company allowed visitors to play a game where they could control a micro-robot on top of a tablet as a demonstration of the company’s Bluetooth Low Energy.

KELK Ltd. exhibited their Micro Generation Module, which can change heat in the environment to electricity to power battery-less IoT devices. TAMURA Corporation also exhibited electronic parts and components essential for the creation of IoT devices, in addition to the SiC Gate Driver Module and the IGBT Gate Driver Module.

Rohm Group, Lapis Semiconductor displayed their Soil Environment Sensor, which can detect pH and water levels, as well as temperature in soil. The sensor itself can be buried directly in the soil, and will communicate wirelessly, relaying the relevant information about the soil environment in real time. This product can help commercial farming operations optimize their yield, and it can also be an important part of environmental monitoring to help protect societies against natural disasters. Rohm’s Soil Environment Sensor received the Grand Prize in the Green Innovation Category of the CEATEC AWARD 2016.



Panasonic Corporation exhibited their Flexible Lithium-ion Battery, which can withstand bending and twisting. They showed the battery being bent up to a radius of 25 mm, and bent to an angle of 25°, as well as showing how the battery would continue to function even when repeatedly bent or twisted. By utilizing a newly developed laminated outer layer and a newly developed inner structure, Panasonic created a battery for which it is difficult to cause leakage when bent, or for overheating to occur, making the battery safe and suitable for devices worn by the human body. The battery can also withstand bending and twisting above the JIS standards for cards (bending to a radius of 40mm, and twisting to 15°) and is also able to withstand twisting for long periods of time, making it a good future choice for battery-driven card-shaped electronic devices or as a power source for wearable tech devices. With a thickness of 0.55 mm, the battery is available in

3 different sizes. The Flexible Lithium Battery was picked by the panel of US journalists to receive the Innovation Award in the Electronic Components category.

● A Wide Variety of Displays That Conveyed Sensing Technology in Easy-to-Follow Manner

Murata Manufacturing Co., Ltd. had a crowd of people gathered to watch as the company demonstrated their Wireless Motion Capture. 8 sensors were placed on the body of the person to measure their golf swing in real time, which was recorded using a 360° motion capture and transmitted via wireless connection.

Fujitsu Ltd. also displayed their Sports Form Digitalization. It is a non-wearable sensing technology capable of capturing the coordinates of a person's joints in 3D and comparing the data with ideal form by analyzing and displaying to help the athlete improve.

Many other interesting sensing technologies and their application examples were introduced.

Fujitsu's Next Generation Sensor Shoes fitted with a speed sensor and gyroscope at the bottom of the shoe gather a number of information such as motion, pressure, and bending of the wearer's feet, which is sent to the smartphone.



This technology can be applied for a number of uses, including creating a log of the user's activities for health-management purposes, using location awareness for big data, or many other types of applications. Lenovo Japan, Inc. also presented their Smart Shoes, which work together with a special app.

VRC Corporation displayed their 3D Body Scanning Device, which is a revolutionary new solution which can create a 3D scan of a person in just 4 seconds. This device was picked by the panel of US journalists to receive the Innovation Award in the Digital Imaging category.

Omron Corporation had powered up their table tennis robot even further. They demonstrated their AI technology in the form of FORPHEUS, which featured chronological deep learning, and can judge the strengths and weaknesses of its opponent in real time, and match the level of its opponent to help them improve their own game of table tennis.

ROHM Semiconductor also presented their 'ORIZURU Project 2016' which had advanced beyond its earlier version. The company's super-light micro-computer board Lazurite Fly is used to control the device, and with the weight of this year's device coming in even lighter, at just 2.1 grams. In addition to stable flight, they also announced that the device can also be controlled by a sensor device attached to the operator's arm.

● VR Technologies Providing New Visual Experiences

Tyco Electronics Japan G.K. delights visitors every year with their bold performances, and this year was no exception, as they demonstrated their TE VR Hang Glider. They offered VR hang gliding tours of various scenes in which the company's products were being used. Developers of the 3D real-time, virtual reality software UC-win/Road, FORUM8 Co., Ltd. also offered demonstration experiences using a VR headset. The Superhuman Sports Society was looking lively as they also offered a chance to try their battle game HADO, which makes use of a head mounted display, and a sensor on the user's arm. Another use of VR technology which gained a great deal of attention was the IGZO Display for VRHMD, presented by Sharp Corporation. With 1920 x 2160 dots in a 2.87 sized screen, it is said that this super fine resolution gets rid of issues relating to visible dots in headsets.

● Feeling things that aren't there – Haptic technology

Together with VR, haptics are technologies that convey the sense of touch and are a promising new development. Alps Electric Co., Ltd. exhibited a selection of force feedback (haptic perception) products. In the "Touch and Feel" zone, the company reproduced the sensation of pouring hot and cold drinks into a cup by fitting devices such as an actuator and Peltier element to the side of the cup to convey the sense of force and coldness to the fingertips. This system makes use of research done by Prof. Susumu Tachi (Japan Science and Technology Agency), who is a professor emeritus at University of Tokyo and leads the virtual reality research. In addition to this Haptic® Trigger Plus, the Alps booth also presented Haptic® Trigger, technology that controls actuator drive to enable the sensation of crushing a cherry tomato, squeezing a citrus fruit, picking a gummy candy or grabbing a heart, and Haptic® Pad that reproduces the sensation of stroking a floor made of mortar.

Also, Keio University Haptics Research Center/Nozaki Laboratory presented "Development of high performance haptic prosthetic hand – artificial realization of human motions by using haptic transplant technology". This was selected for the CEATEC AWARD 2016 Review Panel's Special Prize.



● New proposals to contribute to society through physical disability support.

The venue featured many proposals for using new technologies to achieve a society in which people with physical disabilities can be active.

Mitsubishi Electric's Shaberigaki UI (draw and talk interface) is voice recognition/display technology for a smartphone or

tablet that enables the user to talk by tracing a trajectory of spoken words with the finger. Combining drawing and multi-lingual translation functionality can help the hearing impaired or foreigners to communicate, and was hence awarded the Grand Prix in the Life and Home Innovation Award category of CEATEC AWARD. GN ReSound Japan, a Japan affiliate of hearing aid maker headquartered in Denmark, exhibited the Smart Hearing ReSound LiNX2, which was awarded the Semi-Grand Prix in the Town Life and Society Innovation Category of the CEATEC AWARD 2016. The company's stylish hearing aids use digital audio technology to connect to an iPhone for communications and music playback directly in the hearing aids.

The Panasonic Corporation's booth proposed new mobility solutions to carry users to their destinations automatically and safely by applying the company's sensor technologies into the award-winning WHILL wheelchair that won the CEATEC Innovation Awards "as selected by US Journalists" in 2014.

Fujitsu Limited presented vision-supporting eyewear. This retinal scanning laser eyewear technology projects images directly onto the retina to aid viewing for the vision impaired. As a technology that holds promise in vision support, the company won a double Grand Prix – the METI Award of the CEATEC AWARD 2016 and the CEATEC Innovation Award "as selected by US Journalists".



● Factory transport robots getting smarter.

It seems automated guided vehicle (AVG) robots that move around specified courses in factories and warehouses using magnetism, lasers or physical rails have reached a turning point. Omron's Mobile Robot LD is a robot that moves autonomously without the need for rails or guides. Using laser scanners to measure its surroundings, the robot automatically creates a map and can accurately know its position by referencing the map and results of most recent measurements, enabling it to move to its destination while avoiding people and obstacles. Autonomously detecting obstacles as it moves and creating a map enables flexible adaption to changes in factory or warehouse layout. Hitachi, Ltd. presented the unmanned transport vehicle Racrew, which adopts a unique auto transport idea to lift the entire shelving for increased efficiency with the power of more than 3 ordinary people.

● Many open innovations overturning the theory of "closed innovation".

Over the past few years a diversity of open innovation cases from a wide range of companies has flowered.

Rohm Semiconductor has provided opportunities for hardware developers by recruiting original hardware creations useful for living that use the company's devices, providing support to those efforts not only with prize money and developmental component supply but also manufacturing support from

engineers and to exhibit the creation in the exhibitions in which the company participates. The company exhibited five excellent works at the venue. Murata Manufacturing Co., Ltd. also presented award-winning creations in an idea contest partnered with the Makuake crowd funding platform sponsored by Cyber Agent. Also, the Bank of Tokyo-Mitsubishi UFJ's start up accelerator program MUFG Fintech Accelerator showed achievements from the first hackathon held in Japan using a bank API.

● Wide-ranging proposals for device manufacturing support.

The show also featured many exhibits of technologies designed for cutting-edge device manufacturing support.

Measurement instrument maker Anritsu Corporation presented a range of continuity solutions that enable ECHONET Lite certification of ECHONET Lite equipment using the Wi-SUN interface, 2M Radio Sensor Network Testing and Home Area Network (HAN) Testing. OKI Engineering Co., Ltd. exhibited "non-defective analysis for quality assurance". This is a service that offers reliability testing/evaluation/analysis, EMC testing, and investigation of technical and environmental information of procurement parts in all areas such as design, prototyping and manufacture on behalf of the user. This exhibition attracted attention of the professionals.

● AI and deep learning exhibitions centering in the AI Pavilion.

The AI Pavilion setup in the special exhibit area attracted popularity.

DataRobot by Recruit Holdings Co., Ltd. is a software developed to make it easy for anyone to apply deep learning to businesses and automatically generate machine learning forecast modeling and implementation. The software has mechanisms to enable automatic forecast modeling and implementation.

Preferred Networks, Inc. presented cases of applications of deep learning products, the so-called core of AI. Topical exhibits that attracted attention included a flying drone that learns by itself, and a robot capable of removing various items from shelving. There were also many AI related proposals exhibits in other areas too numerous to describe them all here. They included Fujitsu's Human Centric AI Zinrai exhibit, a culmination of AI research. This technology is planned for implementation with business applications, middleware and services. With plenty of examples of AI in products and robots, there was a definite impression that it has become one of the central themes of CEATEC JAPAN.

● IoT Town bringing together companies looking to create markets.

With the keyword of "connect", IoT Town presented new goods and services for various usage scenes at home, in towns and in community brought about by CPS/IoT. Secom Co., Ltd. presented its safe, secure, comfortable and convenient service visions through projections on a large-size screen. Mitsubishi UFJ Financial Group's presentations included NAO, which was introduced in the communications robots section, the J-Mups thin-client system that enables payments through credit cards, UnionPay cards, pre-paid IC cards for transportation systems, electronic money and NFC all through a single unit, and new

investments trust products utilizing AI.

JTB Planning Network Co., Ltd. proposals included an “aerial display” for un-manned smart travel agents and Narikiri Spot face-recognizing technology that creates images as if the user is in a tourist destination. Tomy Company Limited exhibits included OHaNAS, a robot using NTT Docomo’s natural-language dialogue platform, the Hello Zoomer, a puppy robot, and the JOY!VR goggle-form headset product that enables the excitement of space travel in the home. The Mamezou Holdings Co., Ltd. exhibit created excitement with its system to watch over elderly that uses various sensor data to visualize living patterns, and a prototype of Nekomoni, a transmitter-fitted collar that enables search of cats if they go missing, as advanced data analysis consulting examples that predict movements etc.

Presentations by Rakuten, Inc. and Rakuten Institute of Technology included the KiTeMiROOM system that proposes clothing coordination with randomly switching suggestions by narrowing down the number of products based on information such as user attributes and the clothing they are wearing, and the “zapzap” terminal that enables leafing through book content just by holding the book over the terminal.



● Remarkable increase in exhibits in the Venture & University Area.

CEATEC JAPAN 2016’s most striking increase in exhibits was in the Venture & University Area.

Katsura Lab at Keio University presented its Instantaneous Power Machine – technology that achieves previously difficult dynamic motion on robots. The Kanagawa Institute of Technology Department of Information Engineering presented a number of exhibits, among which its “machine lip reading model” was one that gained attention. “caiba” by Caiba, Ltd. is a technology that detects the operators hand and body movements and reproduces them exactly in a remote robot. The operator can also wear a head-mounted display to recreate the experience of actually riding the robot as it moves around, which is a unique reverse idea.

● Two awards that make you feel the future in CPS/IoT.

Standing at the core of the meeting of ministries participating in CEATEC JAPAN, the CEATEC AWARD recognizes excellence in among the exhibits at CEATEC JAPAN in its various award categories and through the Minister of Internal Affairs and Communications (MIC) Award and the Minister of Economy,

Trade and Industry (METI) Award. The MIC Award was presented to Sharp Corporation for its Advanced Wide-band Satellite Digital Broadcasting Receiver, while the METI Award went to Fujitsu Limited for its Retinal Imaging Laser Eyewear Technology.

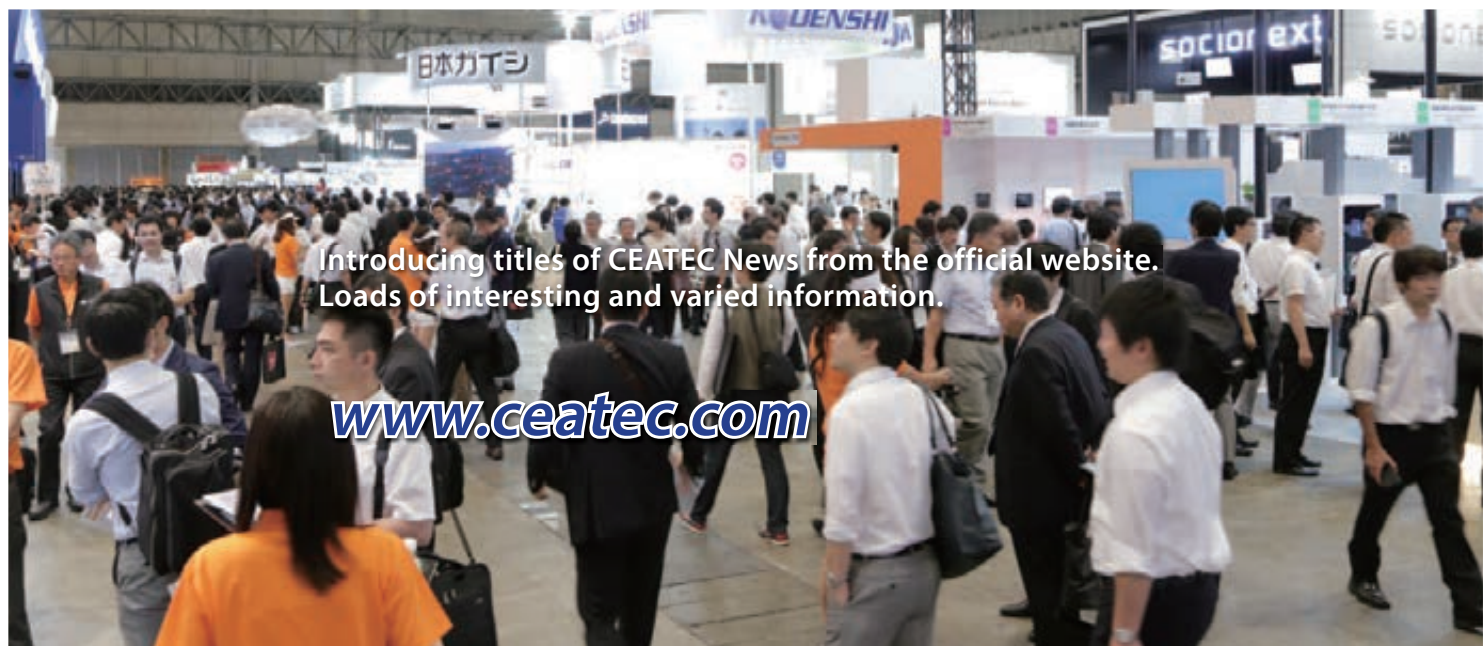
Mitsubishi Electric Corporation won the Life and Home Innovation Category for its Shaberigaki UI – User Interface for Voice-activated Drawing, NEC Corporation won the Town Life and Society Innovation Category for its Automated Security Intelligence Technology to Defend System Against Unknown Cyber-attacks Based on AI, Socionext Inc. won the 8K HEVC Real-Time Video Encoder Solution/Demodulator IC for Advanced Wide-Band Digital Satellite Broadcasting thorough the cable TV system/Single-Chip 8K HEVC Video Decoder SCH801A, while Rohm Co., Ltd./Lapis Semiconductor Co., Ltd. won the Green Innovation Category for their New Soil Environment Sensor Can Measure Real-time Soil Data Contributing to Increase Productivity of Agriculture and To Prevent Disaster. The Review Panel’s Special Award was presented to Keio University (Haptics Research Center Nozaki Laboratory) for its World’s First, Development of High Performance Haptic Prosthetic Hand – Artificial Realization of Human Motions by Using Haptic Transplant Technology.

Awards at the show also included the CEATEC Innovation Award “as selected by US journalists”. An independent advisory panel of US journalists in the fields of IT and home electronics review and commend significant products, technologies, and services at CEATEC JAPAN 2016, based on their innovativeness and potential influence on the US market. Fujitsu Limited’s Retinal Imaging Laser Eyewear Technology was selected as the Grand Prix from the 9 Category Award winners.

● CEATEC JAPAN 2016 – the feeling of the coming new era

Looking over the venue, the exhibition noticeably featured many novel proposals and exhibits in such areas as AI, VR and Fintech as well as the main themes of CPS and IoT. Also becoming noticeable were the active initiatives in collaboration and cooperation such as open innovations and the hackathon, and the remarkable increase of exhibits in the Venture & University Area providing the chance to uncover or carve out business opportunities and new partnerships as well as a forum for exchange. This was 4 days during which one could really feel the growing role of the exhibition as a place for exploring new technology and developing business.

CEATEC News



Introducing titles of CEATEC News from the official website.
Loads of interesting and varied information.

www.ceatec.com

Vol.001

2016.10.7



The Keyword is Innovation,
CEATEC JAPAN 2016 Begins

Vol.006

2016.10.11



Sharp Corporation Highlights the
Appeal of RoBoHoN (now a year
old) for Corporate Use

Vol.002

2016.10.11



The NTT Group presents 19
applications and solutions to
create new value combining IoT
and AI

Vol.007

2016.10.12



Fujitsu — Instant Sensing
Technology for Sports Form
Analysis

Vol.003

2016.10.11



Video security support solutions
by NEC with wearable devices

Vol.008

2016.10.12



Epson Sales Exhibits Industrial
Robot System with Force Sensors
for the First Time

Vol.004

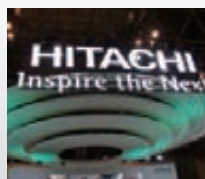
2016.10.11



Honda Motor Exhibits 3D-Printed
Micro Commuter Vehicle

Vol.009

2016.10.12



Hitachi exhibits its "EMIEW3"
robot specialized for guidance
and customer service

Vol.005

2016.10.11



Panasonic Corporation, Showing
the Latest in Technology with a
Human Body Communication
Device and Makeup Printer

Vol.010

2016.10.17



CEATEC JAPAN 2016 comes to a
close

Conference / Seminar Program

On October 3 (Mon) an opening reception was held for CEATEC JAPAN 2016 at the Palace Hotel Tokyo in the Marunouchi district of the capital. Among the guest speakers were Prime Minister Shinzō Abe and two members of his Cabinet – Sanae Takaichi, Minister of Internal Affairs and Communications, and Hiroshige Sekō, Minister of Economy, Trade, and Industry. The number of attendees was 837, including many members of the Diet together with the representatives of the exhibiting companies.

Selection of Special Conferences

Oct. 4 (Tue)

Guest Speech

Efforts in Creating a Legacy for Tokyo 2020 ~Tokyo 2020 certified program(Economy and Technology)~

Tokyo Organising Committee of the Olympic and Paralympic Games Vice Director General
Mr. Masaaki Komiya



Keynote Speeches

Bringing About a Prosperous Future through IoT

FUJITSU LIMITED Chairman and Representative Director
Mr. Masami Yamamoto



Keynote Speeches

Social Innovation Using Digital Technology

Hitachi, Ltd. President & CEO
Mr. Toshiaki Higashihara



Keynote Speeches

The Technology Trends Today and the Future of IT Industry

Computer Software Association of Japan Chairman
Japan Federation of IT Associations Chief secretary
Mamezou Holdings Co., Ltd. President/CEO
Mr. Norio Ogiwara



Special Session

IoT Acceleration Consortium Convention

Special Session

Cyber Security demanded in the Era of IoT

Oct. 5 (Wed)

Special Session

Japan-Germany Symposium
– IoT/Industrie 4.0 Cooperation

Special Session

International Workshop on the Fifth
Generation Mobile Communications
System (5G) – 2016

Special Session

The Fourth Industrial Revolution
– Industrie 4.0 : Solutions made in
Germany

Special Session

USA Showcase Seminar – Seminars
organized by the U.S. Embassy Tokyo

Special Session

AI Conference by CEATEC x AIST

Joint Session

Special Symposium by the Institute of
Electronics, Information and Communica-
tion Engineers (IEICE)

Oct. 6 (Thu)

Special Session

Japan's Growth Strategy by ICT

Special Session

USA Showcase Keynote Session, Cyber
Security and Cloud Services

Special Session

Regional Revitalization utilizing IoT and AI

Special Session

AI Conference by CEATEC x AIST
– PAVILION DAY

Special Session

6th Japan-EU symposium on ICT Research
and Innovation – Plenary Session,
IoT/Smart City Special Session

Oct. 7 (Fri)

Special Session

USA Showcase Keynote Session 2 organized
by the US Embassy Tokyo

Special Session

Monozukuri of Tomorrow – Industry IoT
with Industrial Collaboration

Special Session

The Latest Trend on IoT in UK

Special Session

French Tech Lyon Seminar

Special Session

6th Japan-EU Symposium on ICT Research
and Innovation – Parallel Sessions

International Forum

VCCI International Forum Program 2016

Many other sessions were held during the four-day show.

Exhibitor Breakdown and Questionnaire Results

Exhibitor Attributes

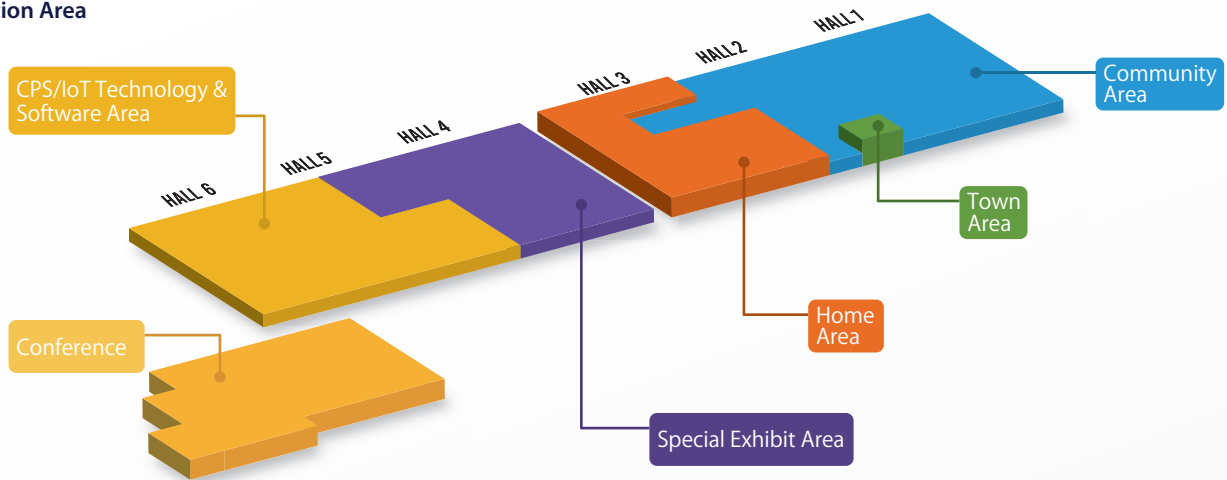
	No. of Exhibitors			No. of Booths
	Domestic	Overseas	total	
Community Area	69	29	98	489
Town Area	20	2	22	27
Home Area	56	22	78	252
CPS/IoT Technology & Software Area	142	82	224	476
Special Exhibit Area	166	60	226	466
Total	453	195	648	1,710

Number Breakdown of Overseas Exhibitors (195 exhibitors from 24 countries/regions)

Region	No. of Countries & Regions / Exhibitors	Breakdown
Asia	12 / 140	China: 51, Taiwan: 38, South Korea: 16, Malaysia: 14, India: 10, Hong Kong: 5, Cambodia: 1, Singapore: 1, Thailand: 1, Philippines: 1, Vietnam: 1, Macao: 1
Europe	10 / 19	France: 5, UK: 2, Switzerland: 2, Sweden: 2, Spain: 2, Germany: 2, Ireland: 1, Austria: 1, Denmark: 1, Romania: 1
North America	1 / 27	USA: 27
Middle East	1 / 9	Israel: 9

Venue Structure

Exhibition Area

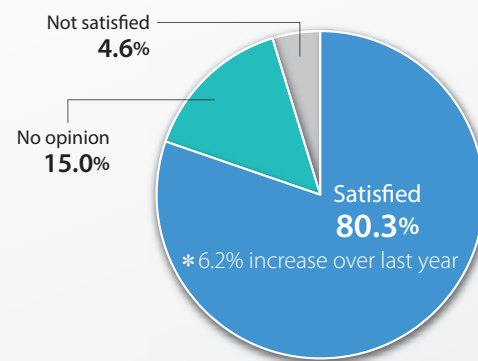


Exhibitor Questionnaire

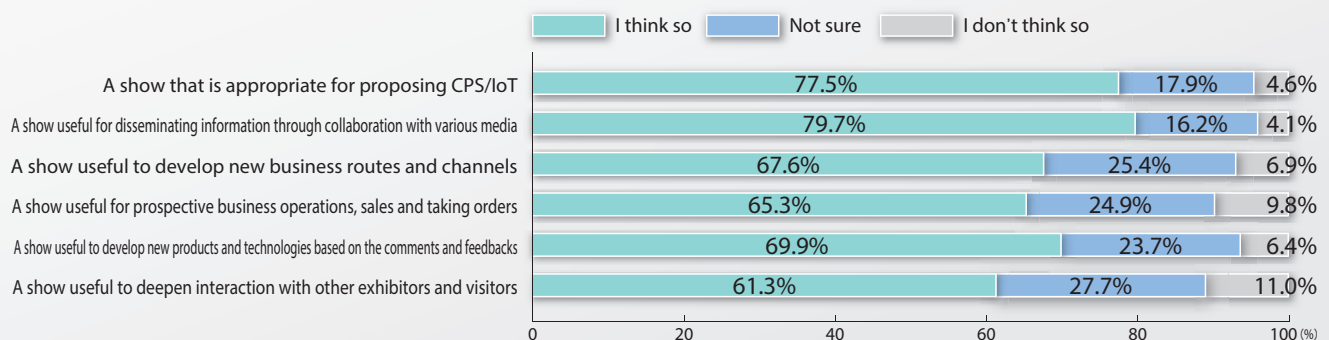
Exhibition Objectives



Overall Satisfaction



Impression of CEATEC JAPAN



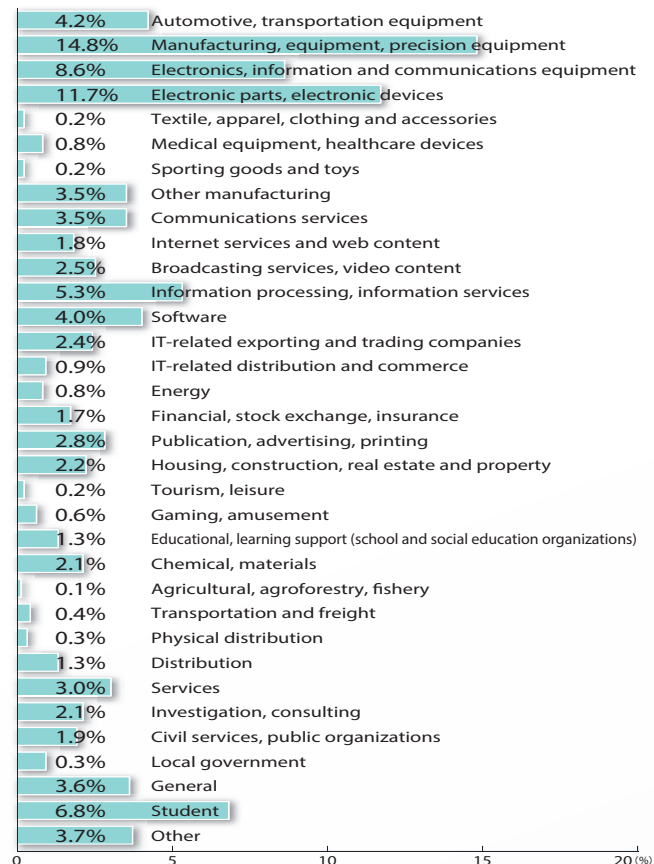
Visitor Breakdown and Questionnaire Results

Number of Visitors

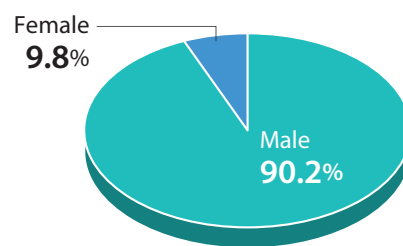
	4 th (Tue)	5 th (Wed)	6 th (Thu)	7 th (Fri)	Total
Registered visitors	24,411	27,174	33,183	37,257	122,025
Registered visitors from overseas	570	633	507	425	2,135
Registered press	958	216	198	201	1,573
Exhibit related	5,553	4,843	4,586	4,465	19,447
Total	31,492	32,866	38,474	42,348	145,180

Visitor Attributes

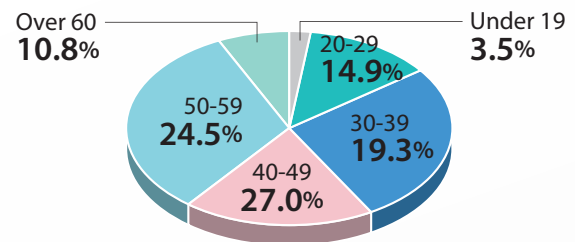
Industry Type



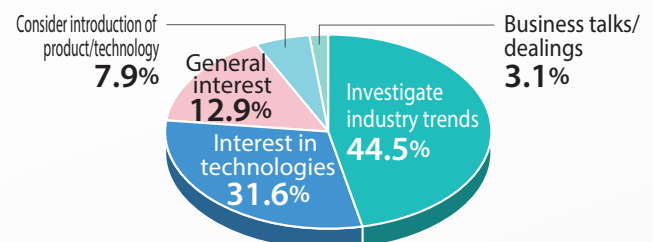
Gender



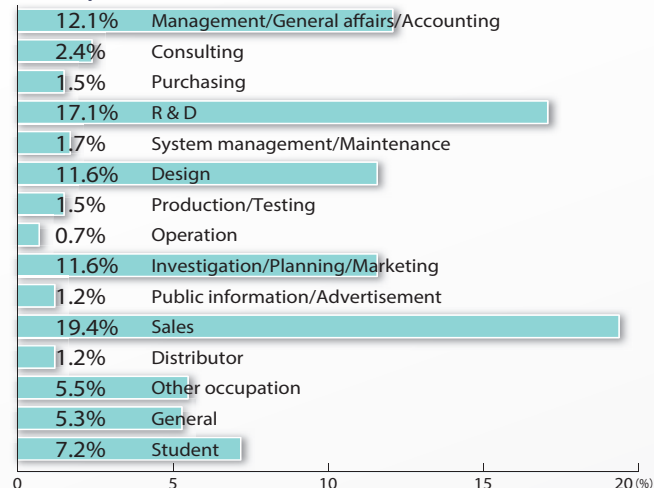
Age Group



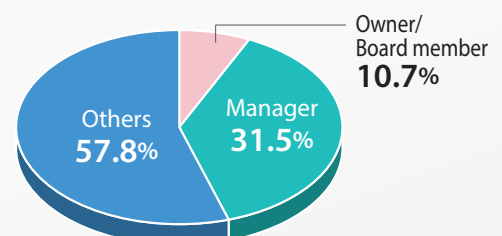
Visitation Objectives



Occupation

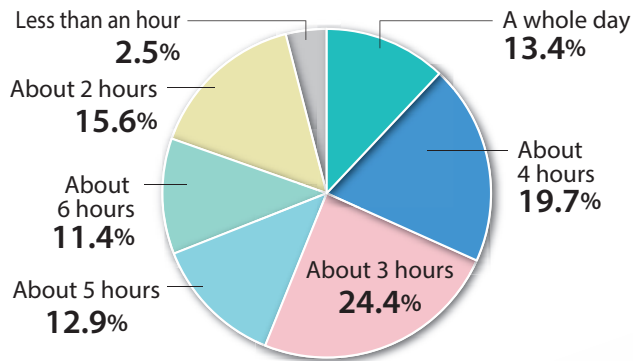


Managerial Position

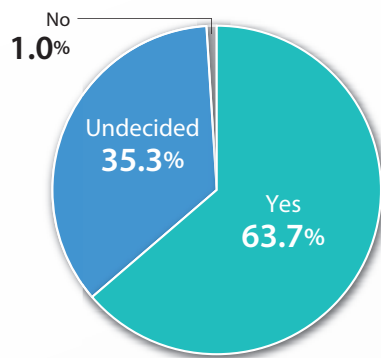


Visitor Questionnaire (Results from visitors' after-show questionnaire)

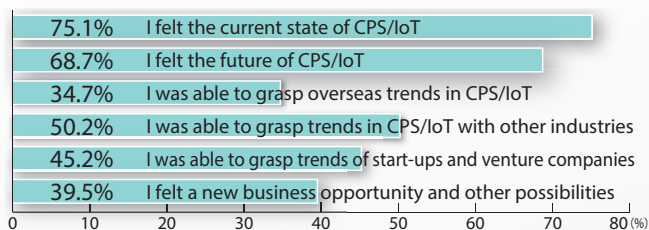
Tell us how long you spent at CEATEC JAPAN 2016



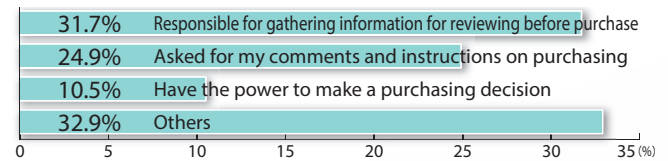
Will you visit the next CEATEC JAPAN?



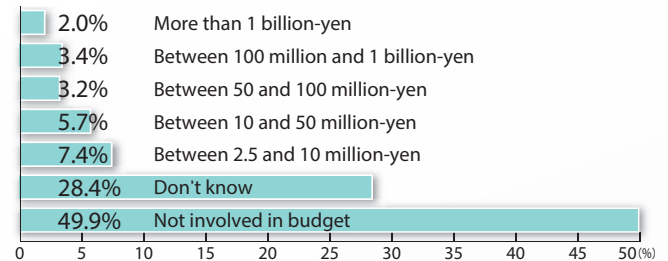
Did you feel any of the following points during CEATEC JAPAN 2016?



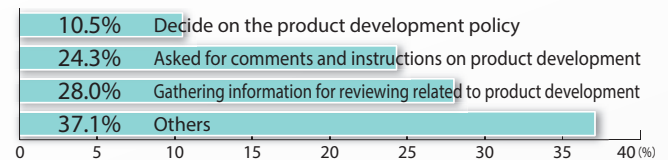
Your involvement to purchasing and introducing IT-related products and services



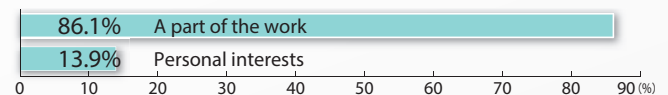
Annual budget for purchasing IT-related products and services



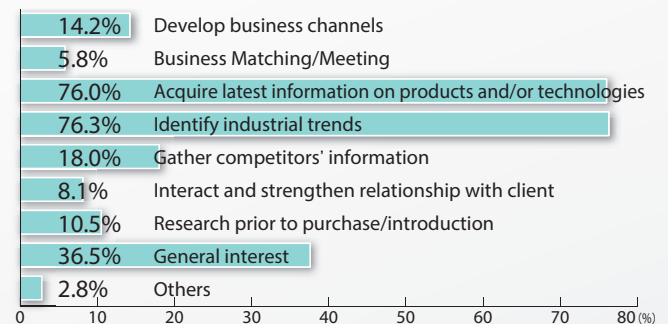
Your role in the development of in-house products



Details on visitation objectives (1)



Details on visitation objectives (2) [for multiple answers]



Public Relations/Promotions

(1) CEATEC JAPAN 2016 Press Releases

- ① 1/27 Exhibit Theme for CEATEC JAPAN 2016 Decided
- ② 7/28 Overview Guidelines announced. Visitor online pre-registration starts today on the official website.
- ③ 9/26 Introducing IoT Town – Sponsors' Special Exhibit
- ④ 10/3 The CPS/IoT Exhibition Opens with a Total of 648 Exhibitors, Marking a 22% Increase Over Last Year
- ⑤ 10/4 CEATEC AWARD 2016 Ministerial Awards (MIC and METI) selected
- ⑥ 10/5 CEATEC AWARD 2016 Category Grand Prix and Semi – Grand Prix Awards selected
- ⑦ 10/7 A comprehensive exhibition of CPS/IoT closes in success with significant increase in number of both exhibitors and visitors.

(2) Press Releases for Overseas (in English)

- ① 1/27 Exhibit Theme for CEATEC JAPAN 2016 Decided
- ② 7/28 CEATEC JAPAN 2016 Exhibition Outline
- ③ 9/26 Introducing IoT Town – Sponsors' Special Exhibit
- ④ 10/3 The CPS/IoT Exhibition Opens with a Total of 648 Exhibitors, Marking a 22% Increase Over Last Year
- ⑤ 10/4 CEATEC AWARD 2016 Two Ministerial Awards Selected

(3) Registered Press Member

Total: **1,573**

*94 from overseas

(China, Hongkong, Taiwan, Korea, India, Malaysia, USA, France, Germany, Sweden, U.K., Hungary, Iran, Italy, Netherlands, etc.)

(4) Online News Insertion

In Japan: **3,324** Overseas: **7,236**

※ As of October 28, 2016; Excludes articles with coverage on exhibitor and/or product only.

■ Domestic online news/web electronic version covering CEATEC JAPAN 2016 (excerpts/no particular order)

◇ Articles related to IoT were posted mainly on major new sites

@DIME	Mixi News	Kaden Watch
@ IT MONOist	mixi	Kanaloco
@nifty	Mobile ASCII	GIZMODO JAPAN
@nifty News	MSN Japan	Clicccar
4Gamer.net	msn money	Modern Business
AFPBB News	MSN Autos	Koneta by au News
Ameba news	My J.Com	ZAiKEI NEWS
ASCII.jp	Net Nihonkai	Sankei WEST
au one News	News picks	Sankei News
Auto Prove	NewsCafe	Sankei Photo
Autoblog JP	Nikkei Asian Review	JPubb
AV Watch	Nikken Times	JUJI PRESS
BCN Bizline	NTT docomo	JUJI.COM
Biglobe News	OKGuide	Weekly ASCII PLUS
BUZZAP	PC Watch	Jorudan News!
Car Watch	Phile-Web	Sponichi
Carview!	RBB Today	Diamond Online
Cloud News Japan	SankeiBiz	The Chunichi Shimbun Plus
CNET Japan	Sanspo.com	Daily Sports Online
Cybozu.net	ScanNetSecurity	THE TOKYO IT NEWSPAPER
EconomicNews	SEOTOOLS News	Tokyo Walker
EE Times Japan	So-net News	TOYOKEIZAI ONLINE
Engadget Japanese	Tech-On! (Nikkei)	Traders Shop
e - nenpi	The Japan News	Toremaga News
FabCross	The Japan Times	Nico Nico News
goo News	TheNews	Nikkei Technology Online
Goo business EX	This Kiji Is - 47NEWS	Nikkei Digital Health
goo autos& bike	TNC News	Nikkei Trendy Net
GREE News	WIRED.jp	Nikkei Business Online
Gunosy	Yahoo Japan News	Nikkei Press Release
Hermitage Akihabara	Yahoo! News Japan	Nikkei
Infoseek Tech	Yahoo! Finance	Newswatch
Infoseek News	Yomerumo News	News - msn
Internet Watch	Zakzak	Mynavi News
iPROS	ZDNet Japan	THE MAINICHI NEWSPAPERS
iza	ZUU Online	MINKABU
Japan News Headlines	The Asahi Shimbun	Airport News Japan
Japan Today	Ameba News	YOMIURI ONLINE
J-CAST News	Medical NEWS	Livedoor News
JUJI Press	INTERNETCOM	Response
kabutan.jp	Excite	Reuters
Mapion	Kaiteki-Kaden life	
Minyu Net	GadgetNews	Etc

(5) Number of articles* in newspapers and magazines issued in Japan **341**

*Results between October 4 to 13, 2016

■ Domestic articles in newspapers covering CEATEC JAPAN 2016 (excerpts/no particular order)

The Nikkei Shimbun	The Asahi Shingakusei Shimbun	Nikkan HOSO JOURNAL
The Yomiuri Shimbun	Komei Shimbun	Nihon Securities Journal
The Asahi Shimbun	THE SEKAINIPPO	SPORTS HOCHI
The Mainichi Shimbun	Yukan Daily	The Mainichi Shingakusei Shimbun
The Sankei Shimbun	Nikkei Sangyo Shimbun	The Kensetsutsu Shimbun
The Tokyo Shimbun	The Japan News	THE SCIENCE NEWS
The Chunichi Shimbun	The Japan Times	The Tsushin Kogyo Shimbun
Fuji Sankei Business i.	Nikkan Sangyo Shimbun	VISUAL COMMUNICATION JOURNAL
Nikkan Kogyo Shimbun	Nikkan Jidosha Shimbun	KOTSU MAINICHI SHIMBUN
The Denki Shimbun	The Chemical Daily	Yukan Fuji
Dempa Shimbun	Dempa Times	
SPORTS NIPPON	Insatsu Tsushin	
Nikkan Gendai	Seikyo Shimbun	Etc

◆ News contents/keywords

- CPS/IoT
- Artificial intelligence (AI)
- Robots
- Cross-industry
- Overseas
- Venture/Start-up
- Fintech
- CEATEC AWARD

◆ Tone of the articles

"Transcending the framework of commercial electronics, next-generation services converging various technologies played the lead role" (The Yomiuri Shimbun, 10/4)

"Escaping the tradition of the CE fair, the show painted a picture of the future with themes such as the IoT connecting various things via the Internet" (The Yomiuri Shimbun, 10/5)

"Although known as the nation's largest commercial electronics fair, it has morphed into a comprehensive IoT exhibition. ... the organizers have made some serious revisions" (The Asahi Shimbun, 10/4)

"Emerging from a 'trade fair' of digital home electronics the emphasis has shifted to center on proposals for a comfortable society linking various devices through the Internet as the Internet of Things (IoT)" (The Sankei Shimbun, 10/5)

"This year this commercial electronics fair was reinvented with strengthened exhibits on the latest technologies such as IoT. This brought first-time exhibits from dissimilar businesses such as financial majors as well as repeat exhibits from electronics majors" (The Mainichi Shimbun, 10/5)

"... with the noticeable participation of different kinds of business, the numbers of exhibitors and associations increased for the first time in four years. Perhaps the trend towards the IoT shift is an opportunity for the struggling Japanese electronics industry to rewind itself" (The Nikkei Shimbun, 10/4)

"Until now exhibitors have appealed to the performance of their electronics and components. This time though, more exhibits are using their devices to compete on the value they can offer." (Nikkan Kogyo Shimbun, 10/4)

(6) Results of TV Coverage in Japan

7 hours 01 minutes 43 seconds

Airdate	Broadcaster	Program name <Aired time on CEATEC JAPAN>
9/30 (Fri) 4 days before the show started	TV Tokyo	World Business Satellite <3'50>
	BS JAPAN	World Business Satellite(Repeat) <3'50>
	NHK	Good morning Japan <2'19>, News <1'33>, Shutoken Network (Live) <6'28>, News Check 11 <0'44>
	NHK RADIO (CHANNEL 1)	NHK Journal <5'02>
	NTV	Oha!4NEWSLIVE <0'23>, PON! <0'19>, NNN Straight News <1'15>, Joho Live Miyaneya <2'46>, news every <8'12>
	TBS	Hiruobi <1'15>, GOGO!Smile! <5'02>, NEWS23 <9'09>
	Fuji TV	News Speak <1'56>, Minna no News <2'57>
	TV Asahi	Wide! Scramble Part1 <1'10>, Super J Channel <3'37>, Abema-TV Abema Prime (Live) <15'00>
	TV Tokyo	NEWS Answer <9'35>, World Business Satellite <9'59>
	BS JAPAN	Nikkei Plus 10 <1'57>, World Business Satellite(Repeat) <9'59>
10/3 (Mon) the day before	YTV	Kansai Joho Networkten <3'47>
	TV Osaka	News Real <3'48>
	NHK	News Watch 9 <2'45>
	NTV	Oha!4NEWSLIVE <5'40>, news every (Live) <4'45>
	TBS	Haya Doki <1'37>, Asa Chan <3'17>, N Sta <4'35>
	Fuji TV	Toku Dane! <4'12>
	TV Asahi	Good! Morning <1'15>, Super J Channel <1'22>
	TV Tokyo	Morning Charge <4'19>, M Plus <0'18>
	TV Chiba	NEWS Chiba 600 <1'45>, NEWS Chiba 930 <1'45>
	NHK Nagoya	Hot Evening <4'33>
10/4 (Tue) First day	TV Tokyo	Morning Charge <0'35>
	YTV	Asanama Wide Ce Matin <3'39>
	BS JAPAN	Nikkei Plus 10 <8'21>
10/5 (Wed)		

10/7 (Fri)	TBS	Asa Chan <1'31>
	TV Asahi	Hodo Station <0'16>
10/8 (Sat)	TV Tokyo	Morning Charge! <0'50>
	CS353 BBC World News	CLICK <12'49>
10/9 (Sun)	CS353 BBC World News	CLICK(Repeat) <12'49> × 3
	Aomori Broadcasting	Newton's apple <11'45>
10/13 (Thu)	CS353 BBC World News	CLICK <12'49>
10/14 (Fri)	KBS Kyoto	Kyo:BIZ <13'37>
10/15 (Sat)	BS-TBS	Weekly News BIZ Street <2'33>
	Aomori Broadcasting	Newton's apple (Repeat) <11'45>
10/16 (Sun)	CS-TBS ch572	Weekly News BIZ Street (Repeat) <2'33> × 2
10/21 (Fri)	KBS Kyoto	Kyo:BIZ <13'01>
10/22 (Sat)	TV Tokyo	Hobo Hobo <11'14>
10/29 (Sat)	BS JAPAN	Gene of Magellan <2'15>
10/31 (Mon)	NHK World(Cable30)	Direct Talk <2'26>
11/4 (Fri)	NTV	ZIP! <1'10>
11/5 (Sat)	NHK BS-1	Economy Front line <2'05>
	NHK World(Cable30)	Direct Talk(Repeat) <2'26> × 2
11/19 (Sat)	BS-TBS	Weekly News BIZ Street <4'30>
11/20 (Sun)	CS-TBS ch572	Weekly News BIZ Street (Repeat) <4'30> × 2
11/27 (Sun)	BS JAPAN	Yabechi no Keizainyumon ~ What will be the life in 2020? ~ <18'37>
12/1 (Thu)	NHK World(Cable30)	Great Gear <12'18> × 4
12/3 (Sat)	NHK BS-1	Great Gear <12'18>
After December (Sat)	BS-TBS	Weekly News BIZ Street <3'00>
After December (Sun)	CS-TBS ch572	Weekly News BIZ Street (Repeat) <3'00> × 2

(7) Results of TV /Internet broadcasting Coverage Overseas

13 hours 35 minutes 05 seconds

● Worldwide

BBC World "Click"	<< 1'04'05 >>
NHK WORLD (JST)	<< 47'18 >>
PC World Facebook channel ("Live"): IDG News Service (USA:PST)	<< 16'54 >>

● USA + Central and South America

BBC World (BST)	<< 2'08'10 >>
USA: Local stations – Steven Greenberg Show (individual local time)	<< 17'52 >>
AWE-TV (USA National Cable Net)	TBD
NTN 24 (Spanish) (USA, Central and South America)	<< 04'08 >>
RCN Nuestra Tele (English, Spanish) (USA, Central and South America)	<< 03'32 >>
CLARO TV – Conexión Abierta (Central and South America)	<< 03'32 >>

● South America

NTN 24 (Spanish)	<< 04'08 >>
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● Columbia

RCN TV (Spanish)	<< 03'32 >>
Telepasifico (Spanish)	<< 08'34 >>
P&C (Spanish)	<< 03'32 >>

● Europe (UK)

BBC (BST)	<< 2'08'10 >>
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● Europe (France)

LCI (CET)	<< 59'23 >>
France 2 (CET)	<< 02'30 >>
France 5 (CET)	<< 37'55 >>
France 1 (Radio)	<< 02'51 >>

● Europe (Spain)

NTN 24 (CET)	<< 04'08 >>
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● Middle-East

BBC Persian TV "Farsi Click" (Same as BBC "Click": Persian) (BST)	<< 1'34'09 >>
Press TV (Iran)	<< 01'49 >>

● Asia (All Asia)

Phoenix Television: Special Problem (60 min.) (HKT)	<< 2'56'36 >>
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● China

Guangdong Satellite Broadcasting (All China)	<< 03'04 >>
Zhejiang Satellite TV (Jiangsu Province)	<< 02'04 >>

(8) Media Partners

Cooperating with the industry newspapers and web media, information were distributed before, during and after the exhibition. Thanks to mutual cooperation, industry & business targeted promotion to new visitors was successfully put into effect.

◆ CEATEC JAPAN 2016 Prime Media Partner



◆ CEATEC JAPAN 2016 Media Partner



(9) CEATEC JAPAN Official Mail Magazine

A total of 16 mails including 5 HTML mails were sent to a total of 240-thousand recipients from past visitors and new registered visitors.

(10) CEATEC News

There were 145 articles distributed on highly topical subjects such as CEATEC JAPAN highlights and exhibitor information.

(11) Production of PR Tools (in print)

- 1) DM Invitation (in Japanese/English) and envelope were produced and widely distributed to exhibitors, sponsor organizations, related organizations and media.
- 2) Conference Program/Venue map (in Japanese/English) were produced and distributed to all visitors during the exhibition.

CEATEC JAPAN Official Website

Information has been conveyed through the official website in real time throughout the year. We have consolidated press releases, necessary items and information, and added functions for booking conference attendance and visitor registration for the show.

The site is viewed by a great number of visitors as many valuable information including updated exhibitor highlights, CEATEC News articles, exhibitor press releases, and various event news were efficiently provided to a wide-variety of audiences.

PV

3,161,597 (between Jul 1 and Oct 31, 2016)

Sessions*

844,143 (between Jul 1 and Oct 31, 2016)

* A "session" refers to the series of actions from a user visiting, connecting and logging into the website, looking at information, and then departing and logging off. Sessions are closed when browsers are closed or there is no response for a certain period of time. Sessions are also called visits.

CEATEC News Article Insertion

Articles in Japanese: **145**
(Contains a total of **47** articles provided by the Prime Media Partners)
Articles in English: **10**

Video Distribution

Posted videos of CEATEC AWARD recipient products/services on YouTube to strengthen information distribution throughout the world

No. of video: **18**

Links to CEATEC JAPAN 2016 Special Sites

No. of links: **22** (A total of links in Japanese and English)
Total no. of clicks: **5,646** (between Jul 1 and Oct 31, 2016)

Exhibitors' CEATEC JAPAN 2016 special sites are introduced in the official website. Each of such special sites helps to promote efficient dissemination of information, and generate a synergetic effect.

Social Networking

◆ CEATEC JAPAN Official Facebook account

No. of Likes: **7,635** *as of October 31, 2016

◆ CEATEC JAPAN Official Twitter account

No. of followers: **3,590** *as of October 31, 2016



Overview

Name

CEATEC JAPAN 2016

(Combined Exhibition of **A**dvanced **T**echnologies)

Exhibition Purpose

CEATEC JAPAN looks to a future society suffused with information, ushering in a new industrial revolution driven by data. This international event brings together the people, the ideas and the technologies that will realize this future. Visitors will benefit from new business opportunities and exchange information on the latest trends and developments. CEATEC JAPAN offers innovative new solutions to the issues facing society, contributing to progress at the community level and to improved lifestyles at the individual level.

Dates

October 4 (Tue) – 7 (Fri), 2016 10:00 a.m. – 5:00 p.m.

Venue

Makuhari Messe, 2-1 Nakase, Mihama-ku, Chiba, Japan

Admission

All visitors are required to register

- ▶ Visitor registering at the gate: General admission ¥1,000, Students ¥500 (Groups of 20 or more students and children under 12 years of age are admitted free of charge.)
- ▶ Online pre-registration or Invitational registration at the gate: Free admission

Sponsor

CEATEC JAPAN Executive Board

- ▶ Communications and Information network Association of Japan (CIAJ)
- ▶ Japan Electronics and Information Technology Industries Association (JEITA)
- ▶ Computer Software Association of Japan (CSAJ)

Support

- ▶ Ministry of Internal Affairs and Communications, Japan (MIC), Ministry of Foreign Affairs of Japan (MOFA), Ministry of Health, Labour and Welfare (MHLW), Ministry of Economy, Trade and Industry, Japan (METI), Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

Listed by date established

- ▶ Japan External Trade Organization (JETRO), New Energy and Industrial Technology Development Organization (NEDO), National Institute of Advanced Industrial Science and Technology (AIST), National Institute of Information and Communications Technology (NICT), Information-technology Promotion Agency, Japan (IPA), Organization for Small & Medium Enterprises and Regional Innovation, JAPAN, Japan National Tourist Organization (JNTO)
- ▶ Chiba Prefectural Government, Chiba Municipal Government
- ▶ Japan Broadcasting Corporation (NHK), The Japan Commercial Broadcasters Association (JBA)
- ▶ KEIDANREN (Japan Business Federation), The Japan Chamber of Commerce and Industry (JCCI), The Tokyo Chamber of Commerce and Industry, The Chiba Chamber of Commerce and Industry
- ▶ U.S. Commercial Service, Delegation of the European Union to Japan, British Embassy Trade & Investment Department, Business France – Embassy of France in Japan, Embassy of the Federal Republic of Germany

No particular order

Assistance Organizations

- ▶ Telecommunications Carriers Association (TCA), The Telecommunications Association (TTA), Internet Association Japan (IAJapan), The Telecommunication Technology Committee (TTC), JIPDEC, IT Verification Industry Association (IVIA), Association for Computer Skills Promotion (ACSP)
- ▶ Association of Radio Industries and Businesses (ARIB), Radio Engineering & Electronics Association (Reea), Japan Satellite Broadcasting Association (JSBA), Japan Cable and Telecommunications Association (JCTA), Japan Cable Television Engineering Association (JCTEA)
- ▶ Association of Consumer Electronics Marketing in Japan, Electrical Products Association of Japan, Japan Federation of Electronic Parts Distributors & Dealers (JEP), Japan Computer System Seller Association (JCSSA)
- ▶ The Japan Electrical Manufacturers' Association (JEMA), Japan Business Machine and Information System Industries Association (JBMA), Japan Audio Society (JAS), Japan

Association of Medical Devices Industries (Jamdi), Japan Electric Measuring Instruments Manufacturers' Association (JEMIMA), Nippon Electric Control Equipment Industries Association (NECA), Camera & Imaging Products Association (CIPA), Japan Embedded Systems Technology Association (JASA), Japan Electronics Packaging Circuits Association (JPCA)

- ▶ Japan Automobile Manufacturers Association, Inc. (JAMA), ITS Japan, Japan Auto Parts Industries Association (JAPIA)
- ▶ The Federation of Electric Power Companies of Japan, New Energy Foundation (NEF), The Energy Conservation Center, Japan (ECCJ), The Japan Electric Association (JEA), Battery Association of Japan (BAJ), Japan Photovoltaic Energy Association (JPEA), Japan Wind Power Association (JWPA), Solar System Development Association (SSDA), Japan Smart Community Alliance (JSCA)
- ▶ Japan Federation of Housing Organizations (Judanren), The Japan Machinery Federation (JMF), Japan Robot Association (JARA), The Japan Refrigeration and Air Conditioning Industry Association (JRAIA)
- ▶ Digital Content Association of Japan (DCAJ), Japan Video Software Association (JVA), Japan Book Publishers Association (JBPA), Recording Industry Association of Japan (RIAJ)

No particular order

Assistance Academic Societies

- ▶ The Institute of Image Information and Television Engineers (ITE), The Japan Society of Applied Physics (JSAP), The Institute of Image Electronics Engineers of Japan (IIEEJ), Information Processing Society of Japan (IPSJ), The Institute of Electrical Engineers of Japan (IEEJ), The Institute of Electronics, Information and Communication Engineers (IEICE)

No particular order

Cooperative Entity

The Tokyo Organising Committee of the Olympic and Paralympic Games

Global Partners

- ▶ Consumer Technology Association (CTA) / International CES (USA)
- ▶ Messe Berlin / IFA (Germany)
- ▶ Messe München International / electronica (Germany), electronica & Productronica China (China)
- ▶ Hannover Fairs / CeBIT (Germany)

No particular order

Asia Partners

- ▶ China Council for the Promotion of International Trade, Electronics & Information Industry Sub-Council (CCPIT ECC)
- ▶ China Electronic Chamber of Commerce (CECC)
- ▶ China International Software & Information Service Center (CiSiS)
- ▶ The Hong Kong Electronic Industries Association (HKEIA)
- ▶ Taiwan External Trade Development Council (TAITRA)
- <Asia Electronics Exhibition Cooperate Conference (AEECC*) Members>
- ▶ China Electronic Appliance Corporation (CEAC)
- ▶ Hong Kong Trade Development Council (HKTDCC)
- ▶ Korea Electronics Association (KEA)
- ▶ Taiwan Electrical and Electronic Manufacturers' Association (TEEMA)

No particular order

*The Asia Electronics Exhibition Cooperate Conference (AEECC) was established in 1997 to encourage mutual promotional cooperation activities among major exhibition organizers in the Asia region.

Management

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