



## [Attachment2]

#### CeBIT2017 Japan Pavilion Exhibitor Highlights

as of 15th Feb 2017 JETRO Trade Fair Department

#### Life/Office/Society

## No.1 ABEJA, Inc.

### ABEJA Platform Open:

State of the art deep learning/big data PaaS for accumulating data from IoT devices and 3d party services for model optimisation, analytics and user feedback.

#### No.2 Afro Co., Ltd.

The SmartTaxiMeter (ondeveloping) will provide the solution that realizes the revisions of fare tables and operation management of the taxis in the live.

#### No.3 AISIN SEIKI Co., Ltd.

Aisin Group is a comprehensive automotive parts supplier that is pursuing innovative R&D initiatives in the fields of "environment and fuel economy," "safety and security," and "comfort and convenience."

At CeBIT 2017, Aisin will present automated driving solutions utilizing driver sensing, navigation system, and integrated vehicle motion control technologies. In addition, we will exhibit personal mobility solutions that go beyond mere modes of transport and are predictive of future lifestyles.

### No.4 Asahi Kasei Corp.

The Asahi Kasei Group is a diversified group of companies led by Asahi Kasei Corp., with operations in the Material, Homes, and Health Care business sectors. With more than 30,000 employees around the world, the Asahi Kasei Group serves customers in more than 100 countries. Asahi Kasei is "Creating for Tomorrow" with all operations sharing a common mission of contributing to life and living for people around the world.

### No.5 Asterisk, Inc.

AsReader is the latest technology of IoT using smartphones or iPhone.

Smartphones become the professional handheld terminal for RFID and Barcode.

## No.6 Broadband Tower, Inc.

As a pioneer of iDC business in Japan, we will establish a 5G (5th generation) data center, which corresponds to full-scale deployment of 5G (wireless) network in 2020.

We are the best partner to provide high availability, efficiency, and security, as well as we make your business environment comfortable and delightful.

We also realize innovative and exciting customer experience in growing industry such as IoT, Fintech, and AI, ally with front runners from Israel, Europe, and US.

#### No.7 Canon Inc.

Canon is contributing to a safe and secure society with its high-resolution, high-sensitivity network camera products. What's more, Canon's video-analysis technology offers high-performance imaging solutions for a variety of scenes, not only for sophisticated security systems, but also for such industries as distribution and tourism.

<sup>\*</sup>alphabetical order by zone

<sup>\*</sup>The list is up-to-date as of February 15, 2017. Contents of the list are subject to change.

#### No.8 CEATEC JAPAN

CEATEC JAPAN: A next-generation exhibition showcasing the latest innovations to help create new markets by promoting business and industry partnerships.

The new CEATEC JAPAN — an exhibition showcasing not only the latest but future technologies and trends to better answer ongoing social issues with high-tech services and the open innovation paradigm. October 3rd(Tue.)-6th(Fri)

#### No.9 CENOTE Inc.

CENOTE are doing R&D of VR. We create VR hardware without using HMD for same experience with HMD for everyone.

#### No.10 Cerevo Inc.

Cerevo, an Internet connected consumer electronics manufacturer, creates unique IoT products and solutions for both consumer and professional users based on its "Global Niche" concept. Over 25 products have been released including, the LiveShell series – devices to enable live streaming using only a video camera, LiveWedge – a 4 input HDMI switcher with live streaming capabilities, Tipron – a smart robot projector for homes or businesses, Hackey - a Wi-Fi switch to turn on and off internet connected devices or services, and the XON series of smart sports products. Cerevo has received CES Innovation Awards three consecutive years in a row.

#### No.11 Classmethod

Our expertise in Amazon Web Services provides our customers the confidence to meet the demands of an ever-changing market.

#### No.12 Craftar Inc.

Our Smart CG Animation technology enables high quality and cost-efficient CG animation production while maintaining taste of Japanese authentic animation.

With this technology we can settle corporate marketing challenge by offering CM, Moving images and VR (Virtual Reality) contents.

### No.13 CS-COMMUNICATION Co.,Ltd.

Indoor positioning and providing contents system

We provide exact positioning information and various contents using our Beacon and application.

# No.14 Dai Nippon Printing Co., Ltd.

In the digital archive business, Dai Nippon Printing has been developing original digitalization technology and utilization methods. In this exhibition, we would like to introduce our activities through the following three cases.

- "Louvre DNP Museum Lab": Collaboration project with the Louvre
- "The 3D digitization project": Collaboration project with the Bibliothèque nationale de France (BnF)
- "Kyoto Cultural Heritage Archive": Project to preserve and inherit the cultural heritage of Kyoto

#### No.15 Data Stadium Inc.

Image processing technology in sport analytics.

Not utilizing special sensors or any other equipment, it measures an objects 3D position in real time solely from image processing.

The technology is already in use in live broadcasts for table tennis, volleyball, and track & field.

#### No.16 DENSO CORPORATION

DENSO is global automotive supplier. Our goal is to develop technology that creates a better world and We are looking at ways that our technology and components can be used beyond the automobile. In this show we will introduce "DENSO Rotics for smarter factory and smarter living."

## No.17 Design M Plus, Inc.

Design M Plus is developing tablet sheet music, along with a unique digital score distribution service, for musicians. We propose to give performers an experience that up until now was not possible with conventional means. We plan to exhibit our prototype tablet sheet music display which utilizes IoT technology.

## No.18 Dynamic Map Planning Co., Ltd

We aim to realize the digital map "dynamic map" that contributes to the automated driving systems and ADAS systems of automobiles. We plan to study the data specifications of the dynamic map cooperation area and plan the business for permanent maintenance and maintenance is proceeding.

## No.19 Epson Europe B.V.

Epson's corporate vision pledges to create a new connected age of people, things and information with efficient, compact and precision technologies.

At CeBIT, Epson demonstrates how it is achieving this vision by using the latest in office inkjet printers, projectors and Moverio smart eyewear to demonstrate how technology will shape the office of the future. With its original solutions including state-of-the-art inkjet technology, spectacular projection demonstrations and innovative augmented reality, Epson shows visitors the strength and versatility of Japanese technologies, displays its commitment to engineering environmentally-conscious products and confirms its position as a leading supplier of solutions for enterprise.

#### No.20 Falcon Denshi K.K.

Service: 3D Vision Inspection, Taping, Marking, Data Programming Service on various programmable IC such as flash ROM, EEPROM, MCU, Logic

Products: Device Programmers, Auto Programming System, 3D Vision Inspection System, Taping System, Marking System

#### No.21 Forum8 Co., Ltd.

VR systems based on real-time interactive 3D VR simulation and modelling software UC-win/Road will be exhibited. FORUM8's achievements in the development of VR systems, driving simulators, system for autonomous driving research, system that links UC-win/Road and UAV together, Cloud-based VR system, IoT systems, and embedded systems, all of which are integrated with and accelerated by versatile real-time VR functions and applicable for a wide range of projects will be introduced to a global audience. HMD hands on demonstration using UC-win/Road Oculus Rift Plugin will run daily in the booth.

## No.22 Fuji Electric Co., Ltd.

Through our innovation in energy technology, we contribute to the creation of responsible and sustainable societies. Realization of cost reduction by "autonomous synchronous production" utilizing IoT create value for customers by strength of field devices and CPS engine.

#### No.23 Fuji Heavy Industries Ltd.

Fuji Heavy Industries, the manufacturer of Subaru automobiles, will showcase its EyeSight driver assist technology. Acting as a driver's "second pair of eyes", the system uses stereo camera technology to monitor the road ahead. By processing images captured by two cameras, EyeSight recognizes other vehicles, pedestrians, cyclists, and motorcyclists in the vehicle's path. When the system detects potential danger, it alerts the driver with sound and visual warnings and even applies the brakes when necessary to help avoid or reduce the severity of the accident. Total sales of EyeSight-equipped Subaru vehicles surpass one million units worldwide.

#### No.24 FUJI SOFT INCORPORATED

Fujisoft, a company providing both software and hardware for the new era.

We will be showcasing: Parlo, an A.I. integrated humanoid robot with our latest technologies, IoTGateways with A.I. integrated FPGAs, Automotive Software development focused on IoT securities, Mobile Solutions.

## No.25 Fujitsu Ltd.

The theme of "Human Centric Innovation – Digital Co-Creation" lets you experience how Fujitsu is creating new value together with our customers and partners, using our latest digital technologies, such as AI, Robotics, IoT, Big Data, Cloud, and mobility in society and business.

#### No.26 Hakuhodo DY Media Partners Inc.

"Maternal & Child Health Handbook" was born in Japan in 1942, and most of Japanese have been using it. It's getting used worldwide nowadays. We also manage the digital version, "Maternal & Child Health Handbook App".

The beginning of the project, Hakuhodo DY media partners partnered with NTT docomo and developed a service named "Nimpu-Techo" for expecting mothers. The service started in 2013, and has won immense trust from both the expecting mothers and their obstetricians. As Hot News, in October 2016, it was decided that the paper "Boshi-techo" (mother and child notebook), issued by Japanese local governments was to collaborate with our "Nimpu-Techo" app.

#### No.27 Hitachi, Ltd.

In the midst of major changes in industry and society as a whole, Hitachi aims at becoming an innovation partner for the IoT (the Internet of Things) era for all of you.

Hitachi shows how we can contribute to the creation of new value which resolves the issues being faced by society and improve the quality of life of people with its Social Innovation Business that evolved by digital technologies.

# No.28 Honda Motor Co., Ltd.

Honda will present a new personal mobility device, UNI-CUB. Honda developed UNI-CUB under the theme of "harmony with people" to realize a personal mobility device which can be used in spaces where other people are moving around.

#### **No.29 ICT Agriculture**

We introduce advanced Japanese ICT agricultural technology which is being promoted by Japanese industry, academia and government together.

ICT can make safer, more secure and delicious ingredients available with the same quality as Japan for healthy longevity Japanese food everywhere in the world.

Sponsorship: Mitsubishi Plastics, Inc., Panasonic Corporation, SPREAD Co.,Ltd., Nagoya University, Cabinet Office, Ministry of Agriculture, Forestry and Fisheries, Ministry of Economy, Trade and Industry

#### No.30 Infinitegra, Inc.

Try our attractive camera solution (thermal, super high sensitive and so on) for IoT and wearable system.

# No.31 Japan Broadcasting Corp.

NHK, Japan's public broadcaster, is presenting 8K Super Hi-Vision including 22.2 multichannel sound. The 8K theatre will showcase various programs including Japanese culture, music, and sports.

We believe 8K technologies can contribute to not only media and ICT industries, but also a wide field of application such as medical imaging, art, and education.

#### No.32 JOLED Inc.

JOLED started in January 2015, combining OLED R&D team from Panasonic and Sony.

Our innovative devices can drive our world "exciting and impressive", and we are aiming to be a leading company at middle size OLED displays by using our high resolution printing technologies. JOLED demonstrate 19.3 inch 4K / 21.6 inch 4K OLED displays, 12.2 inch FHD flexible OLED display and so on. We propose new user experiences in the area of medical, graphic and gaming monitors.

## No.33 KANEKO Manufacturing Co., Ltd.

"Multi-view Glasses-free 3D Endoscopic System" allows everyone standing in front of the monitor to share 3D effects as wide as 150 degree without wearing 3D glasses in real time. The 3D reconstructor, KANEKO developped, enables projection in real time for the first time in the world.

The 3D reconstructor generates 3D depth data from left and right images in real time. This technology creates excellent reality. The expected advantages by this 3D system are;

- 1). Prevent surgical errors by all the staff watching operating field,
- 2). Eliminate the burden of wearing 3D glasses,
- 3). Use for education for medical students.

As succeeded in solving the past problems of 3D real-time display, KANEKO will realize your ideas into shape.

### No.34 KDDI CORPORATION

KDDI introduces service and technology, which are expected to be widely used in the scenes from our daily life such as automobile, agriculture and fishery, to industry and infrastructure. In addition to VR Experience and Smart Drone, we exhibit Security Technology for Internet-of-Things (IoT), Smart Glass-enabled Remote Operation Support System, Energy Control for Reduction of Energy Consumption and CO2, and a KDDI Group Company's data centre "TELEHOUSE".

## No.35 KID'S PLATES INC

The Dolly360 is a radio controlled camera dolly that is ideal for the 360° filming used for shooting VR. Create an intense experience for a more immersive VR video. In order to reproduce immersive VR experience, it is necessary to shoot steadily without blurring with the height of the person's eyes. Also, it is also possible to shoot indoors and in densely populated areas. Until now it was a challenge to take photographers and shoot at the height of their eyes. Dolly 360 solves that problem.

### No.36 Kubota Corp.

KUBOTA's new solution system for agriculture, "Kubota Smart Agriculture System" (called KSAS) is a new "farming service support system" which realizes "efficient farming" for large scale farmers by visualizing farm management data through utilizing advanced farming machines and ICT.

Also, KSAS allows the usage of pesticides and fertilizers to be accurately recorded, which ensures clear traceability and therefore has potential as a means of securing safety and confidence in food quality. Furthermore, we are developing agricultural machines providing autonomous driving technology and drones providing pesticide spraying system in order to realize more efficient farming.

#### No.37 Lyric Arts Inc.

Lyric speaker is the next generation of speakers which displays lyrics in sync with the music. When you choose a song on your mobile phone, the lyrics show up on the translucent screen. If it is a mild song like a ballad, the fonts and movements become soft. If it is an energetic song like Rock, they become strong and powerful. Music analysis technologies developed by National Institute of Advanced Industrial Science and Technology (AIST) automatically analyze the song's mood and structure, and the built-in expression engine creates motion graphics to each song that's played.

#### No.38 Magellan Systems Japan, Inc.

We are the only company in Japan that has technologies that independently provide IP and module (H/W) by developing and optimizing according to customer's needs, regarding satellite positioning technology typified by GPS and related element technologies.

In particular, we are proud of the world's best position sensitivity and high positioning accuracy. Currently, we are strongly promoting the development of Next generation high precision multi-frequency multi-GNSS receiver that supports OZSS.

That receiver reduces the implementation cost compared to conventional high precision RTK-PPP receiver. It can easily apply to especially autonomous drive of farm machine, construction machine and car.

## No.39 Miraisens, Inc.

Miraisens provides innovative user interface devices with realistic haptic feedback based on the original patented technology "3DHaptics". The technology lets you experience the various kind of touch sensation such as Force feeling, Pressure feeling and Tactile feeling by producing perceptual illusion in the brain via specially designed actuator-driven vibration. MIRAISENS expects to apply this technology not only to video gaming (VR/AR contents), but also to mobile, IoT, robotics, medical and automotive.

## No.40 Mitsubishi Electric Corp.

Mitsubishi Electric will present its latest technologies contributing to connect people in the society of the future under the theme "Create the Connected Society — with Mitsubishi Electric's Cutting-edge Technology". Main exhibits are:

- Mobile Mapping System for gathering 3D positioning data to allow for the creation of highly accurate 3D maps needed for autonomous driving
- the Quasi-Zenith Satellite System, which provides seamless and highly accurate centimeter-level positioning information
- the EMIRAI 3.1 xDAS Assisted-driving Concept Car featuring advanced driver assistance technologies
- the world's first voice-activated drawing function that displays spoken words where finger is traced on screen

#### **No.41 National Institute of Informatics**

NII Biometric Security (NII-BioSec) is an R&D project of the NII, in which we are covering the entire range from basic research to social implementations with the aim of protecting people's biometric information against threats that are growing due to developments in advanced sensor technology and media processing capabilities. We introduce PrivacyVisor, which interferes with face recognition of people whose images are captured and displayed without permission, and BiometricJammer, which interferes with the replication of a person's fingerprints.

#### No.42 National Institute of Information and Communications Technology (NICT)

NICT shows 1) Small Optical TrAnsponder (SOTA): state of the art satellite optical communications module,

- 2) Flexible Factory Project: wireless environment evaluations and packet transmission tests for manufacturing,
- 3) VoiceTra: easy-to-use speech translation app that translates your spoken words into different languages,
- 4) wearable electroencephalography (EEG) system that enables EEG measurement in electrically noisy environments by using a high quality active-electrode without conductive paste, 5) DefMuscle: new development tool for musculoskeletal model, 6) NICTER: Network Incidentanalysis Center for Tactical Emergency Response and its two eligible cybersecurity solutions.

## No.43 NEC Corp.

As a social value innovator in the digital economy, NEC will present a range of leading technologies and solutions that drive digital transformation. NEC will display advances in public safety and smart city solutions that integrate key technologies, including the world's No.1 face recognition, video analytics, artificial intelligence (AI), IoT, cloud and high performance computing.

NEC is committed to leveraging its strengths in these areas to help customers and partners succeed in today's digital transformation.

### No.44 New Energy And Industrial Technology Development Organization (NEDO)

NEDO (New Energy and Industrial Technology Development Organization), a Japanese governmental organization, will showcase the results of its technology development efforts such as IoT technologies including sensors and smart devices, robot, AI technologies and smart community projects in Germany. NEDO aims to create new global businesses by solving problems that affect countries around the world.

### No.45 NICHICON CORPORATION

Nichicon was the first in the world to launch onto the market a V2H system that can supply electricity from an EV to a home. We will introduce the functions of V2H systems, the role they will play in realizing a smart society and the changes that will occur to our lives as a result.

## No.46 NIPPON TELEGRAPH AND TELEPHONE CORPORATION

NTT Group acts as a catalyst to promote digital transformations within society, including lifestyle changes and business model innovations. We utilize ICT (Information and Communication Technology) to provide new spectator experiences in sport and to help preserve humankind's precious cultural heritage for future generations. We also contribute to the creation of new customer value through digitization in the fields of agriculture, manufacturing, distribution and urban development.

#### No.47 Nissan Motor Co., Ltd.

Nissan Intelligent Mobility is about building a better future for Nissan customers where cars are their partners, and where drivers are more confident and more connected. Nissan Intelligent Mobility encompasses three core areas of innovation, Intelligent Driving, Intelligent Power, and Intelligent Integration. Nissan launched Seamless Autonomous Mobility system. It partners in-vehicle artificial intelligence (AI) with human support to help autonomous vehicles make decisions in unpredictable situations and build the knowledge of in-vehicle AI. This technology will enable millions of driverless cars to co-exist with human drivers in an accelerated timeline. It is part of Nissan Intelligent Integration.

# No.48 Oki Electric Industry Co., Ltd.

OKI will support customers' digital transformation via IoT platforms including cutting-edge sensing technologies, high-reliability network technologies that have been supporting the Japanese telecom industry, and application for a diverse range of customer needs. At the OKI exhibition booth, we will be introducing optical, audio and visual sensing technologies, AI recommendation with ATMs, AI printing solutions, and AR/VR task support, along with our IoT efforts.

## No.49 Panasonic Corp.

Under the brand slogan "A Better Life, A Better World", Panasonic will showcase our cutting edge technologies of smart factory and energy solutions. In smart factory zone, we'll introduce welding robots and the case of collaboration with Siemens in factory automation solution development. In energy solutions zone, we'll exhibit smart heat pump, fuel cell batteries and hydrogen fuel cell technologies. In addition, Panasonic's activity for Future Living Berlin will be also introduced.

## No.50 Plat-Ease Corp.

Plat-Ease Corporation offers comprehensive metadata solutions and services to broadcasting and video distribution industries. Our system products include broadcasting traffic control, program promotion, ad sales, ad examination for proper expression, viewing rate report, channel subscription management and more. Our metadata operation center in Tokyo with dedicated consultants and operators handles a wide variety of outsourced works such as metadata editing, playlist making, and video transcoding. The satellite office in Tokushima serves as a backup operation center for BCP, and provides a strong base that is capable of providing video archiving at 4K and 8K.

## No.51 Rakuten Institute of Technology, Rakuten, Inc.

Rakuten Institute of Technology enhances new paradigms of "reality" and "internet" in our daily lives.

- AR-HITOKE: Visualizing Popularity of Brick and Mortar Shops with AR to Support Purchase Decisions
- WallSHOP: Personalized Shopping Experience with Public Digital Signage using Mobile Devices

## No.52 Ricoh Company, Ltd.

Our visual communication products provide flexibility in workstyle and solutions to accommodate new ways of sharing information, which contributes to your business sustainability.

## No.53 SEIREN CO.,LTD.

Seiren has combined the textile processing technology and IT, and has developed a unique digital production system, "Viscotecs", which integrates the planning, manufacturing and sales of the textile products by digital data. In the "Personal Order System" realized by Viscotects, once the customers select the products by using the virtual fitting, the production starts through the Internet.

In CeBIT 2017, we introduce our Personal Order "Viscotecs make your brand" actually operated at the stores in Japan.

#### No.54 SORACOM, INC.

SORACOM is a company that provides IoT (Internet of Things) platform of data communication by delivering scalable and elastic cloud technologies running on Amazon Web Services (AWS). It provides reduced time-to-market for M2M/IoT services, and extends the business by paying as you grow cost structures.

## No.55 SOURCENEXT CORPORATION

SOURCENEXT is Japan's top software / app publisher which develops and distributes various titles (over 500 PC software and 300 apps) ranging from security software to the No.1 selling postcard creation software. Starting this year, we started our full-fledged penetration into the overseas market, starting with "iGotcha" a smartphone app which automatically transcribes your voice messages and notifies you via various notifications. Supporting translations into 11 different languages such as English, Spanish and Mandarin, it also allows you to automatically forward notifications for received voice messages to SMS, Facebook Messenger and other supported apps.

## No.56 SPREAD Co., Ltd.

"Techno Farm<sup>TM</sup>" is the most advanced vegetable production system, which can produce 30,000 heads/3 tons of lettuce per day. This hydroponic indoor farming technology allows stable year-round production free from the influence of the climate and the risk of contamination from foreign materials. SPREAD will showcase the innovations and information system of "Techno Farm<sup>TM</sup>". SPREAD is seeking potential international partners to collaborate on this system.

## No.57 Tokushima Prefectural Government

Tokushima Prefecture has an excellent high speed large-capacity broadband environment in all of Japan. Many ICT companies headquartered in large cities have established satellite offices in Tokushima.

A satellite office is where workers can perform their jobs without going to their usual office. The employees complete the same jobs as they would back in their headquarters by using the internet and e-mail.

The satellite office also serves as a backup function when any problems happen such as disasters.

The companies that have established satellite offices in Tokushima are highly productive. The employees are able to work there, while fully enjoying the great outdoors, and an ideal and peaceful rural life.

### No.58 Toppan Printing Co., Ltd.

TOPPAN was founded in 1900 and has expanded into wide-ranging fields such as securities printing, publication, commercial printing, various packaging materials and electronic components. In our booth, we are exhibiting Electronic Paper Displays (EPD) and RFID solutions, e.g. Batteryless EPD, EPD for manufacturing work orders, NFC tags and High security RFID labels. TOPPAN is the perfect partner for your IoT projects.

## No.59 Toshiba Corp.

By using Toshiba IoT Architecture "SPINEX" to support energy solutions,

Toshiba is reducing CO2 emissions and minimizing environmental impacts.

Toshiba's exhibits introduce our energy solutions in applying IoT technologies.

Toshiba will also showcase our advances in applying deep learning to large-scale IoT data processing and AI-based image analysis.

### No.60 Toyota Motor Corp.

①Ha:mo

Ha:mo is a next-generation transportation system that seamlessly provides comfortable mobility and resolves urban transportation problems as it joins together an optimal combination of personal vehicles and public transportation.

②ITS Connect

Toyota's launched ITS Connect safety package uses vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication to provide drivers with the kind of information that cannot be picked up by on-board sensors, and thereby aids safe driving.

#### No.61 Trend Micro Inc.

As an expert of cyber security, Trend Micro has delivered innovative security solutions for more than 25 years. Cyber security has been more critical, as cars and consumer electronics are smarter. We will provide IoT security solutions to protect our customers from the risks posed by the new IoT world. We introduce and demonstrate our new solutions for cars and home networks at our booth.

#### No.62 Unicast Inc.

We provide "Sekkyaku-guide", communication solution (robot application) connecting human and robots. We have 30 introduction cases (for bank, hotel, airport, event exhibition etc...) in Japan.

We're planning to exhibit the solution using "Pepper" and "Sota" (Desktop size robot).

Especially, the solution using "Sota" will be the first show at the exhibition, and it's expected to be used in Telemedicine.

## No.63 Verification Technology, Inc.

New Products

VARON Verification tool for Architecture

Performance confirmation between architecture and RTL implementation.

VSTAR Debugger with event for FPGA

Continuous sequence checker / event checker by new feature.

New products "VSTAR"/"VARON" verify LSI(ASIC/ASSP/FPGA) designs in very short time.

(ASIC: Application Specific Integrated Circuit, ASSP: Application Specific Standard

Produce, FPGA: Field Programmable Gate)

Service

High quality and wide coverage verification service in accordance with function safety standard (IEC61508, ISO26262) for LSI, in a short period of time and at low cost. And construction of verification environment with standard IPs by definition of irregular case.

#### No.64 Walk-Mate Lab Co., Ltd

We have been developing a gait support wearable robot, named WALK-MATE ROBOT. This robot aims to mutually synchronize with the walking rhythm of the user. As a result of this rhythm synchronization, the walking can be stabilized. WALK-MATE means the robot can walk with human in timing as if they are real human. And this system developed based on the result of basic research at Miyake laboratory of the Tokyo Institute of Technology.

## No.65 Works Applications Co., Ltd.

AI WORKS is a next-generation AI-infused enterprise system suite that combines productivity tools such as spreadsheet, email, chat, and drive and AI in one place. It studies and analyzes vast amount of operational log data generated from daily operations and makes intelligent predictions based on the task at hand and user's position. AI WORKS helps businesses transforming their operations by offering every employee a personal assistant.

#### No.66 Yahoo Japan Corp.

We provide internet users necessary and beneficial information through our internet portal site "Yahoo! JAPAN", which is one of the biggest internet service in Japan with massive page views and unique users. We also provide advertisers and partners all over the world the best marketing solution and opportunity through our website.

### No.67 Yokohama Industrial Development Corporation

IoT products and services of companies in Yokohama

## Infrastructure/Factory

#### No.68 Activelink Co., Ltd.

Power Assist Suit AWN-04

AWN-04 is the power assist suit specialized for reducing the burden of the lower back. When the operator lift up or put down the heavy things, AWN-04 assists the operator's movement by driving the motors.

## No.69 alfaTKG Co., Ltd.

We are an international group of companies which specializes in "small and medium-sized manufacturing industry IoT system" based in Nihonbashi, Tokyo.

#### No.70 AMADA HOLDINGS CO.,LTD.

Amada will exhibit a fully automated, robotic metal bending system using Amada's IoT solution corresponding to Industrie 4.0. Amada is a comprehensive manufacturer of metalworking machinery.

## No.71 Atomsystem Co., Ltd.

Our product AtomWMS & StockLite create additional value which utilize several IoT solution.

## No.72 Daikin Europe N.V.

Discover our reliable, cost-effective cooling for IT infrastructure and integrated management and cloud control solutions.

Daikin exhibits it's state-of-the-art touchscreens, cloud controls and BMS control systems and shows how you can make your building management easier integrating not only Daikins' HVAC range of products but also third party devices.

## No.73 DMG MORI Co.,Ltd.

DMG MORI provides our customers around the world with machine tools and total solutions such as automation systems to increase customers' productivity.

We try to propose best solutions for all the challenges our customers face at their production sites to be the No.1 machine tool company for our customers. We support our customers worldwide to maximize machines' performance.

### No.74 FANUC Corp.

FIELD system is IoT (Internet of Things) platform for factory automation. FIELD system means "FANUC Intelligent Edge Link & Drive".

## No.75 FLEXSCHE Corp.

Production scheduler "FLEXSCHE" is a software product to be applied for a planning business (process planning, manufacturing planning, workload planning, inventory planning, personnel assignment planning, etc.) in the manufacturing industry.

To bring out the full potential of the factory and then deal with the stream of requirements from customers, continuous struggle against time is unavoidable. While the environment surrounding the manufacturing industry undergoes major changes, it is inherently difficult to continue traditional production activities based on rule of thumb planning and static information geared towards "the present". FLEXSCHE becomes a reassuring tool for directly solving such troubles of manufacturing sites.

#### No.76 Fujikin Inc.

Under the slogan, "Internet 'Beyond the Flow' of Things," we will exhibit precision flow control devices, such as our state-of-the-art Electronic Valve, as well as our innovative products for the life-sciences field that have recently been launched in Japan.

#### No.77 GS Yuasa International Ltd.

Today, in addition to the usage of energy, energy storage technologies are becoming increasingly diversified. We are pleased to introduce to you our products that can be utilized in new energy fields, such as photovoltaic power and lithium-ion batteries—a new business for GS Yuasa.

## No.78 Intermedia laboratory Inc.

Devices communicate with smartphones and other terminal devices with touch screen using light signal and electric capacitance code without any radio wave.

G-stamp is a variable electric stamp generator with dot code reader to bridge printed material to digital contents. G-Card is a card type device for one-time-password-authentication on a touch panel screen.

## No.79 Information Services International-Dentsu, Ltd.

ISID assists new IoT businesses via original and unique failure diagnosis and prognosis algorithms on GE Predix platform.

## No.80 Japan Novel Corp.

Quality Commander conducts the test of touch screen application, such as a mobile phone, tablet, car navigation and so on. Robot arm and image processing technology perform the quality test without any mistake. It contributes to reduce the cost of test and to improve the quality of your application.

Ouality Commander will contribute to improve your device quality.

## No.81 JM Technology Inc.

Introduce the training program of educating the talants for CDO of the manufacturing company at the next generation.

#### No.82 Kabuku Inc.

Kabuku provides two complementary manufacturing solutions: MMS Connect is the platform that offers an one-stop distributed digital manufacturing service to industrial clients, while MMS is the cloud-based business management and automation software for 3D printing Service bureaus, job shops and contact manufacturers.

#### No.83 Kawada Robotics Corp.

"NEXTAGE" the dual-arm industrial robot

Under the concept of "coexistence with people, "this industrial robot has been developed for ensuring human safety and improving the productivity of manufacturing sites. This robot acknowledges the surrounding environments and work pieces with high accuracy so that it is versatile enough to handle multi-product variable production.

## No.84 Kawasaki Heavy Industries, Ltd.

The industry's smallest and lightest 'F series' robot controller enables a network to form where the robots and all devices are connected.

We intend a zero downtime of the system by monitoring the operations of the robots connected to the network and analyzing big data to predict potential failures.

#### No.85 Kobe Steel, Ltd.

The Kobe Steel Group contributes to enhancing lifestyles and improving society in the three core business areas of materials, machinery and electric power.

At CeBIT 2017, we will present the latest IoT solutions developed for welding systems, industrial machinery, construction machinery, and energy from waste plants.

Our advanced monitoring applications will significantly improve our customers' productivity and provide useful functions for Smart Factories.

#### No.86 Koken Ltd.

KOKEN has been pursuing "Technology Innovation" to contribute to our business domains of "Cleanliness, Health and Safety". We are continuously taking on the challenges presented by each of these three business fields, utilizing our highly original technology as the core for business development. This time we exhibit the product called KOACH, which can create zone with air cleanliness level rated at ISO Class 1 without surrounding walls with low a clean running cost. KOACH have many advantages to help improve quality, increase yield and reduce the cost for customers.

#### No.87 Komatsu Ltd.

Bring innovation to construction site by IoT in the field of civil engineering works.

The contents are exhibited in our booth of CeBIT 2017, such as i-Construction promoted by Japanese government, Smart Construction which is one of service by Komatsu, ICT excavator which is one of important component of Smart Construction, and satellite positioning system supporting above.

A special area is prepared, which you can feel real ICT construction.

### No.88 Kyoto Tool Co., Ltd.

To provide a work traceability system which workability, secures safety, stability, and economy with measuring instruments, wearable devices and RFID.

#### No.89 LEXER RESEARCH Inc.

LEXER provides cyber physical system by the concept 'Simulation Integrated Manufacturing(SIM)' with Production Simulator 'GD.findi'. The concept of 'SIM' especially speaking, this CPS concept will dynamically optimize for overall production plan in shop floor toward their own aim for production concept with observing supply chain status by IoT and timely indicating work plan to target station or target worker real time. This system will synchronize shop floor as physical space and virtual factory as cyber space. Once converted from heterogeneous space into homogeneous space using IoT and virtualizing technology, optimization of production plan will be realized with virtual computing such like AI based on simulation, analysis and learning technology.

## No.90 LOBTEX CO., Ltd.

We offer a full range of fastening technology by Blind Rivet/Blind Rivet Nut and Cordless Riveter for Blind Rivet which can realize the process control.

## No.91 Nippon Steel & Sumitomo Metal Corp.

The Nippon Steel and Sumitomo Metal Corporation (NSSMC) Group aims to be the best steelmaker with world-leading capabilities for providing excellent products and services to society. We make continuous efforts at being cost competitive and globally responsive. We have refined the steelmaking process so as to produce a wide variety of high quality steel products non-stop around the clock by investing in world-leading technologies and manufacturing facilities. We are presenting our advanced IT solution initiatives for steelmaking. They are human-centered in areas where operational productivity and safety can be improved and steelmaking processes can be visualized.

### No.92 Okuma Corp.

The next generation manufacturing by Okuma Smart Factory.

From the small office only 3m by 4m, please try to be the "Factory-Free" manager who controls the factories all around the world. From all over the world, by processing the work in the client's local area, Okuma Smart Factory will realize "local production for local consumption" which enables "ultra-short delivery" & "cost reduction in transportation". Okuma Smart Factory proposes "Sharing economy" by using machines more effectively from all over the world. Please visit and feel Okuma's cyber physical system, network and AI technology for Okuma Smart Factory.

#### No.93 Prodrone Co., Ltd.

PRODRONE is manufacturing revolutionary drones for professional use. As Japan's top developer and manufacturer of industrial drones, we are leading hardware and software technologies for revolutionary industrial drones. In September 2016, we succeeded in developing a dual robot arm large-format drone for the first time in the world. Widely ranging from all-weather waterproof drones to infrastructure inspection drones to safety units for drones, we are engaged in the development and manufacture of drones and solutions that can be utilized in various scenes. PRODRONE is the very company that can bring into reality what other companies are unable to attain.

#### No.94 Ouadrac Co., Ltd.

Our communication technology is ideal in connecting large number of devices on IoT with improved SNR achieved regardless of the type, method or means of the communication. Our technology is called 3C and 4C.

## No.95 RIMCOF (R&D Institute of Metals and Composites for Future Industries)

RIMCOF and three Japanese aircraft manufacturers, which are Mitsubishi Heavy Industries, Ltd.(MHI), Kawasaki Heavy Industries, Ltd.(KHI) and Fuji Heavy Industries, Ltd.(FHI), have been developing SHM (structure health monitoring) systems for composite structures of aircraft since 1998. Our SHM systems monitor strain, impact and various kind of damage on aircraft structure by optical fiber sensors, then reduce the maintenance cost of aircraft. Furthermore, since 2006, Airbus and Japanese manufacturers (RIMCOF, MHI, KHI and FHI) have been conducting cooperative research on SHM through "JASTAC". We are now working toward practical use of our SHM systems in 5-10 years.

## **No.96 SATO Holdings Corporation**

SATO is an integrator of engineered Auto-ID solutions that provides value for customers in the form of accuracy, labor and resource savings, peace of mind and environmental protection. At CeBIT we will exhibit our best Last Inch solutions leveraging our global network and on-site integration capabilities that unleash the power of IoT. These include our smart fitting room and sales associate application Vision Retail Platform, the DataLase inline digital printing solution which enables printing of variable information at high speeds and high volumes, and our PJM RFID cabinet for accurate, high speed inventory management.

## No.97 SHIMA SEIKI MFG., LTD.

SHIMA SEIKI MFG., LTD. is a leading manufacturer in the computerized flatbed knitting machine industry, best known as the pioneer in WHOLEGARMENT® technology wherein an entire knitted garment is produced on the knitting machine without the need for sewing afterward. With the SDS-ONE APEX3 3D design system at its core, compete systems integration from planning, production to sales promotion is achieved through various IoT and smart manufacturing solutions.

#### No.98 SURUGA SEIKI Co., Ltd

Our new products of IoT precision positioners utilizing sensor technology and AI provide factory automation with most efficient motion controls and preventive maintenance services.

#### No.99 Takaha Kiko Co., Ltd.

DC SOLENOID is an actuator. Applying a current to the coil, the plunger makes a liner motion. Solenoids are used for various things, for example electronic locks, machines, and car etc..

We manufacture a DC SOLENOID and almost component parts such as cutting, press, and plastic molding. These systems enable speedy manufacturing and development. Our online shop has 66 type solenoids and Same-Day Delivery. You can purchase only 1 pcs solenoid as a prototype. We flexibly respond to modify of cable wires and cores etc.. Our original solenoid contest "SOLECON" provide ideas for IoT.

#### No.100 Toyo Business Engineering Corp.

Our software is a digitalized solution to improve the operations at factories by monitoring status of machines and movement of workers with IoT.

#### No.101 Yamaha Motor Co., Ltd.

Yamaha Motor is dedicated to offering high-quality products that move and inspire people, and are born from original and innovative concepts, utilize outstanding technologies and have designs expressing "Refined Dynamism." We deliver the special excitement we call *Kando* to people all over the world through a wide range of products and technologies, from our motorcycles and marine products to industrial machinery, robots and drones.

## No.102 YASKAWA Electric Corp.

Mini car assembly demonstration with BTO system that combines 6 micro robots and multi carrier module equipment.

## **Element**

## No.103 Alps Electric Co., Ltd.

ALPS ELECTRIC CO., LTD. is a leading global manufacturer of electronic devices, supplying some 40,000 different components to around 2,000 companies that produce automobiles, home appliances, mobile devices and industrial machinery all over the world.

We introduce devices and solutions for IoT based on our sensor and communication technology cultivated over many years, and examples of collaboration with European companies.

## No.104 Explorer Inc.

Explorer Inc., exploiting its deep experience in design and development, delivers a range of hardware and software solutions for low-latency image processing products. These include many Explorer-branded high-end video and digital image processing equipment, such as 4/8K codecs.

We provide hardware and software development services, as well as procurement and manufacturing. We offer a total solution, from product definition through design, manufacture, test, and shipment, or any combination, as needed.

We provide vertical IoT solutions from sensors to analytics. Our IoT solutions can also be the basis for development services to contribute to our customer's innovation and growth.

# No.105 Fujikura Ltd.

Fujikura group will exhibit sensor systems, data center solutions, connected-car solutions supporting IoT and communication infrastructure with our "Tsunagu (meaning "connecting" in Japanese)" technologies. The theme for our booth is "connecting people to people as well as people to things" and "connecting the past, present and the future" with our technologies. In order to clearify this theme, we will be displaying more interactive exhibits than static exhibits. We are sincerely looking forward to meeting you at our booth.

#### No.106 Google Japan G.K.

Machine learning, which is currently a hot topic, has made huge progress largely due to researchers and developers sharing their research outcomes openly with the community.

Google also contributes to the machine learning community by providing services such as the open sourcing of "TensorFlow," a machine learning library and such. Our booth with introduce developers Japanese small businesses that have utilized this technology and created innovative products.

#### < Element >

#### No.107 HIROSE ELECTRIC CO.,LTD.

HIROSE Electric, as one of the world's leaders in the connectivity industry, specializes in the challenging development and manufacture of electronic connectors in a wide range of industries, including industrial, automotive, information & communication, medical and consumer electronics particularly for the smartphone. And will pass it's 80th anniversary this year.

## No.108 IQP Japan Corporation

IQP is a first-in-kind Code Free App Development system and a runtime environment for delivering Cross Platform Enterprise & IoT Applications.

#### No.109 Its., Inc.

We provide secure environment for IOT using iris authentification technology

### No.110 Murata Manufacturing Co., Ltd.

Murata Manufacturing Co., Ltd. is a worldwide leader in the design, manufacture and sale of ceramic-based passive electronic components & solutions, communication modules and power supply modules. In this CeBIT, we will show some ultra small components and a case of solution that are combined with sensors and communication modules.

## No.111 Nidec Copal Corp.

Our Tactile actuators can provide advanced tactile response in user interfaces such as Touch control Panels, Game Consoles and Automotive applications.

We will exhibit a related demonstration (Smart Kitchen etc.).

## No.112 Nihon Micron Co., Ltd.

Our product range with compact, thinner, high density, excellent heat dissipation, excellent dielectric characteristic is indispensable to such advanced market demands. All of our high additional value products are produced by ideal complex of new creative technology and highest level of high density and high precision processing technology which we learned by long experience in substrate manufacturing.

#### No.113 NIPPON MEKTRON, LTD.

Nippon Mektron, Ltd. and "Mektec" group are the world leading companies in Flexible Printed Circuit (FPC) industry. We will showcase FPC for Wearable and New products developed from our core FPC technology. As the highlight of our exhibit, Nippon Mektron in collaboration with Sekitani Lab., The Institute of Scientific and Industrial Research, Osaka University will be demonstrating robot operation by human brain wave monitoring using Mektec Stretchable FPC as the electrode. We will also introduce a rubber electrode for bio-signals made by NOK Corp.

## No.114 Renesas Electronics Corp.

Renesas Electronics Corporation was established by its former parent companies Mitsubishi, Hitachi and NEC in the year 2010. Renesas Electronics delivers trusted embedded design innovation with complete semiconductor solutions that enable billions of connected, intelligent devices to enhance the way people work and live—securely and safely. Doing so, Renesas is at the core of technology innovation. From its wide range of applications, Renesas Electronics Europe will show leading-edge solutions for applications in the digital society, such as Autonomous Driving, Smart Home, Industry 4.0 and the IoT.

#### No.115 ROHM Co., Ltd.

As a leading semiconductor manufacturer, ROHM develops and produces a variety of products essential for the IoT sector, including wireless communication modules, sensors, and power devices.

## No.116 Sony Semiconductor Solutions Corp.

Imaging and Sensing Solutions; the Key Technology for IoT World.

### <Element>

## No.117 Sumitomo Electric Industries, Ltd.

①Optical fibers/cables and telecommunication-related products for network construction ②Devices used in broadband, data-heavy wireless communications systems such as mobile communication, satellite communication, communication between base stations, and high-resolution weather observation and air traffic control radar ③Full color laser module comprising red, green and blue semiconductor laser diodes

## No.118 TDK Corp.

In the IoT framework, various objects and devices are connected via networks, allowing for information exchange and control. The world is evolving from the era of the Internet, which connected people to each other and to applications, to the era of networks: connecting people with physical things and these things with each other.

At CeBIT2017, TDK will introduce products and technologies that can contribute to the further evolution of IoT, such as automotive magnetic sensors, which are essential for the IoT, and SESUB (Semiconductor Embedded SUBstrate) technology, which realizes the world's smallest Bluetooth modules.