Inter BEE

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REVIEW 2016

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INTER BEE ONLINE
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Inter BEE 2016

Inter BEE 2016, the "(52nd) International Broadcast Equipment 2016" was held over a three-day period from Wednesday 16th November to Friday 18th November at Makuhari Messe, Chiba City with the support of five ministries/associations and the cooperation of 37 organizations.

■ Exhibition slogan
  "WHAT WILL YOU DO NEXT?
  - Conveying the possibilities of New Media to the world"

The excitement of such possibilities was simultaneously conveyed from a satellite relay from Tokyo to the world for the first time in 1964 – the year prior to the 1st Inter BEE exhibition.

Inter BEE, which has showcased broadcasting and media technical innovations for over half a century since 1965, was held under the slogan: "Conveying the possibilities of New Media to the world" in preparation for 2020.

■ Japan's foremost "Comprehensive International Media Exhibition"

With the support of the Ministry of Internal Affairs and Communications, the Ministry of Economy, Trade and Industry, NHK, the National Association of Commercial Broadcasters in Japan, and the Association of Radio Industries and Businesses as well as the cooperation of many related organizations, the Inter BEE 2016 exhibition was organized into four exhibit categories: "Professional Audio Equipment," "Video Expression/Professional Lighting," "Video Production/Broadcast Equipment" and "ICT/Cross-Media", among which the latest innovations in broadcasting, video, audio, lighting, and media business from Japan and overseas were gathered under one roof for this "Comprehensive International Media Exhibition". Inter BEE is held annually, providing an opportunity for exhibitors and visitors alike to disseminate and exchange information.

Since last year, Inter BEE has been approved under the United States Department of Commerce International Trade Administration's "Trade Fair Certification Program", which is accelerating internationalization activities. It also aims to drive IoT trends - a technology expected to trigger social changes in the future - and advance even larger trends through such cooperation.

■ More and varied projects to extend the exhibition's scope

"INTER BEE IGNITION" is a new project that combines potential growth areas of virtual reality (VR), augmented reality (AR), new video expression technology such as holograms, and live entertainment technology.

"INTER BEE CONNECTED" brings together the latest trends in media business such as key stations' network strategies, viewing measurement technology, program multi-use, OTT, and live streaming.

At the "INTER BEE EXPERIENCE", there was an SR speaker demo at the event hall and visitors were able to try out headphones and microphones.

At the "INTER BEE CREATIVE", behind-the-scenes introductions of productions were given by movie directors and video creators working on the front line, and there were presentations introducing the latest production tools.

Exhibitors
Largest number of exhibitors ever

In addition to the penetration of 4K and 8K technology, focus has been placed on HDR and there are hopes for IP transmission and cloud services.
As a result, the number of new exhibitors increased and the new possibilities of media were introduced.

Exhibitors: **1,090** (Record-high) companies

Overseas exhibitors: **593** companies

Trading Visitors
Largest number of visitors ever

Together with the spread of media business, a new visitor segment emerged, enabling a diversity of exchange with exhibitors.
The number of registered press was the largest ever, so the event was widely covered both here and abroad.

Visitors: **38,047** (Record-high) people

Members of the press: **451** (Record-high) people

International
Eyes of the world on the latest technology and Japanese trends

Activities combining VR and AR technologies and entertainment in anticipation of the 2020 Tokyo Olympics and Paralympics gained great interest from overseas.

Overseas exhibitors: **34** countries/regions

Overseas visitors: **37** countries/regions

Outline

■Name
International Broadcast Equipment Exhibition 2016
(a.k.a. Inter BEE 2016)

■Period
Wednesday, November 16th – Friday, November 18th (3 days)

■Exhibition hours
November 16th (Wednesday) 10:00 a.m. to 5:30 p.m.(*10:00 a.m. to 6:00 p.m.)
November 17th (Thursday) 10:00 a.m. to 5:30 p.m.(*10:00 a.m. to 6:00 p.m.)
November 18th (Friday) 10:00 a.m. to 5:00 p.m.(*10:00 a.m. to 4:30 p.m.)
*Schedule for SR Speakers Demo & Presentation (Event Hall)

■Location
Makuhari Messe
2-1, Nakase, Mihama-ku, Chiba City, Chiba Prefecture 261-0023, Japan

■Organizer
Japan Electronics and Information Technology Industries Association

■Supported by
Ministry of Internal Affairs and Communications (MIC)
Ministry of Economy, Trade and Industry (METI) *Listed by date established
Japan Broadcasting Corporation (NHK)
The Japan Commercial Broadcasters Association (JBA)
The Association of Radio Industries and Businesses (ARIB) *No particular order

■Partners
Advanced Imaging Society Japan Committee
Association of Media in Digital
Camera & Imaging Products Association
Digital Content Association of Japan
Digital Signage Consortium
IPDC Forum
IPTV FORUM JAPAN
JAPAN AD.CONTENTS ASSOCIATION
Japan Association of Audiovisual Producers, Inc.
Japan Association of Lighting Engineers & Designers
Japan Association of Professional Recording Studios
Japan Association of Video Communication
Japan Audio Society
Japan Cable and Telecommunications Association
Japan Cable Television Engineering Association
JAPAN POST PRODUCTION ASSOCIATION
Japan PublicViewing Association
Japan Satellite Broadcasting Association
JAPAN STAGE SOUND BUSINESS COOPERATIVE
Japanese Society of Cinematographers
JSL
Mobile Broadband Association
MOTION PICTURE and TELEVISION ENGIREERING SOCIETY of japan, Inc.
MULTISCREEN BROADCASTING STUDY GROUP
National Theatrical & Television Lighting Industrial Cooperative
Next Generation contents Distribution Forum
Projection Mapping Association of Japan
Radio Engineering & Electronics Association
Specified Radio microphone User's Federation
Stage Sound Association of Japan
State of the Art Technologies Expression Association
The Association for Promotion of Advanced Broadcasting Services
The Association of Japanese Animations
The Institute of Image Information and Television Engineers
Theatre and Entertainment Technology Association, Japan
3D Consortium
Visual Industry Promotion Organization

■Certified by United States Department of Commerce, International Trade Administration

U.S. COMMERCIAL SERVICE
United States of America
Department of Commerce

DEPARTMENT OF COMMERCE
UNITED STATES OF AMERICA

INTERNATIONAL
T R A D E
A D M I N I S T R A T I O N

AMERICAN EMBASSY
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■Global Partners

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■Managed by
Japan Electronics Show Association (JESA)
5F Ote Center Bldg., 1-1-3, Otemachi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: +81-3-6212-5231

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What will you do next?

Conveying the possibilities of new media to the world

The world's largest sports festival, the Rio Olympics was held in August, 2016. The numerous hotly-contested battles fought during the event were relayed to Japan by 4K/8K test broadcasting on the BS channel, giving us a great thrill at public viewing venues and so on. At the closing ceremony, Japan's Prime Minister, Shinzo Abe, made a surprise appearance, raising expectations for the coming Tokyo Olympics and promoting Japan's diverse video, music and performance contents. The Rio Olympics closed its curtains full of expectations for Tokyo 2020.

So, the baton was finally passed to Tokyo in anticipation of 2020. The warm-up to 2020 has passed and the dash to the finishing line has now speeded up. Approximately 3.6 billion people, almost half the world population, watched TV coverage of the Rio Olympics. In addition to sports fans, the world's eyes were on new technological changes in TV broadcasting showing the live drama unfolding at the stadia.

Rising expectations as baton is passed from Rio to Tokyo

One of the concrete goals of the Japan Revitalization Strategy approved by Abe's cabinet in June, 2016, was to enable 50% of all households to watch the 2020 Tokyo Olympics and Paralympics in 4K and 8K.

Attending the Inter BEE opening ceremony, Mr. Mabito Yoshida, Deputy Director-General, Ministry of Internal Affairs and Communications, touched on the goal to expand use of 4K/8K by 2020 and enthusiastically spoke about "building an environment to achieve that and advance R&D" in his congratulatory speech. Mr. Yutaka Yoshimoto, the Deputy Director-General of the Commerce and Information Policy Bureau of the Ministry of Economy, Trade and Industry, who also gave a congratulatory speech at the opening ceremony, commented "I think that a lot of advancements will be made and on display in four years' time at the Inter BEE venue. I think that today will be like a kind of time machine where we consumers will get a glimpse of the things we might be able to experience in four years' time."

To meet the expectations of such governmental and public organizations, exhibition booths promoting 4K/8K stood out at the Inter BEE venue. Not just recording cameras, a wide range of 4K/8K compatible products such as editing equipment, networks, and recording devices were assembled, leaving a strong impression that the production environment is fully in place. This range of products, ranging from production to viewing, will fly the flag for 2020.

Additionally, the large-screen display installed in the second floor entrance lobby received 8K test broadcasts by NHK and 4K HDR broadcasts by SKY Perfect JSAT. A space was provided for visitors to experience the charm of high definition images such as grand sumo tournament broadcasts. Every day of the event, many visitors stopped in their tracks to view it.

Mr. Mabito Yoshida
Deputy Director-General,
Ministry of Internal Affairs and Communication

Mr. Atsushi Haruguchi
Director of
Engineering Administration Department/
Deputy Chief of Engineering NHK

Mr. Jiro Komaki
Director of the Board,
Senior Managing Executive Officer
Unit President, Broadcasting Business Group,
Multichannel Pay TV Business Unit
SKY Perfect JSAT Corporation

Mr. Jose Manuel Fernandez Marino
Sports Technology Director,
Globo Group Enterprises (TV Globo)

Mr. Yoshikazu Higashi
Deputy Director of
Broadcast Engineering Department,
NHK

Eyes of the world focused on 4K/8K technology

Following on from NHK's 8K test broadcast which started in August, SKY Perfect JSAT began 4K HDR broadcasts in October. Then in December, the month following Inter BEE 2016, BS 4K broadcasts by commercial broadcasters got underway. Inter BEE 2016 was held right in the middle of this momentum toward 4K and 8K broadcasts. 4K/8K broadcasting is an advanced technology from Japan that has attracted global interest, and related conferences such as the keynote speeches were packed with people on all days, showing the level of interest in this field.

"4K/8K Roadmap Progress and Prospects", a keynote speech given on the first day of the exhibition, attracted the interest of people involved in broadcasting from both Japan and abroad. It was given by Mr. Mabito Yoshida, the Deputy Director-General of the Ministry of Internal Affairs and Communications, who lectured on national broadcasting policy trends and prospects in anticipation of 2020. As mentioned previously, he stressed that half of all households being able to watch broadcasts in 4K/8K by 2020 would be a significant indicator of 4K/8K penetration.

Next on the rostrum was Mr. Atsushi Haruguchi, the Director of Engi-

neering Administration Department/ Deputy Chief of Engineering at NHK, who gave a speech titled "Super Hi-Vision Test Broadcasting and Prospects toward the Tokyo Olympics", in which he introduced a detailed timetable and policy for this area. Mr. Jiro Komaki of SKY Perfect JSAT Corporation lectured "About our 4K broadcasting initiatives", expressing confidence in providing 4K broadcasts of sporting and live music events that give viewers a feeling of being right there in person.

Another keynote speech given on the same day was by Mr. Jose Manuel Fernandez Marino, the Sports Technology Director of "TV Globo" - Brazil's largest broadcasting station, who gave a speech titled "Looking back on the Rio 2016 coverage to think about 2020". In his speech he placed high expectations on the realization of SHV broadcasts by 2020. Mr. Yoshikazu Higashi, Deputy Director of the NHK Broadcast Engineering Department, gave a lecture called "Looking back on the SHV content production at Rio 2016", in which he provided a detailed introduction of the Rio Olympics broadcasts.

Golden period for 4K/8K video production equipment

4K/8K related products have entered a golden period, illustrated by the vast array of new 2020-aimed products supporting 4K/8K content production on display at the exhibition venue. Exhibited cameras included "EOS-C700" (Canon), "HDC-4800" (Sony), "VARICAM LT" (Panasonic), "UHK-430" (Ikegami Tsushinki), "FT-ONE-LS" (FOR-A), "AH-4410A" (Astrodesign), "URSA Mini 4.6K" (Blackmagic Design), "LDX86N" (Grass Valley), each promoting high-performance and high-definition image support. Hitachi Kokusai Electric Inc. exhibited the handy-type 8K camera, "SK-UHD8060B", and Astrodesign also exhibited a new-style 8K camera, "AH-4801B".

In addition, a multitude of editing products boasting 4K/8K compatibility were exhibited. A number of companies including Sony, Panasonic and FOR-A proposed workflows that support 4K/8K production and IP conversion. A color grading and finishing system, "Quantel Rio 8K", which supports

8K/60p, was exhibited by Snell Advanced Media (SAM). Blackmagic Design exhibited, among other products, "Teranex AV" – a high-quality standard converter compatible with HD/U HD.

Astrodesign exhibited an 8K workflow with the "HR-7518" 8K SSD recorder at its core. Keisoku Giken exhibited the "KRS-8K" 8K recording system, which can operate four "Ki Pro Ultra" AJA recorders simultaneously, and record and playback 8K/59.94 signals by ProRes codec.

The NTT Group demonstrated the small real-time HEVC 4K low-delay codec, which is installed with their own ASIC and supports multiple formats including 4K 60p.

AIMS (Alliance for IP Media Solutions)
Mr. Michael Cronk
AIMS Chairman of the Board,
Core Technology VP, Grass Valley

NDI (Network Device Interface)
Mr. Will Waters
Director,
Product Marketing & Sales Enablement,
NewTek, Inc.

IP-VRS (IP Video Router System)
Mr. Kazunori Nakamura
Senior Manager,
Marketing & Business Development,
MEDIA GLOBAL LINKS CO., LTD

Mr. Masanori Wada
General Manager Engineering Dept.,
FOR-A Company Limited

ASPEN (Adaptive Sample Picture Encapsulation)
Mr. Mo Goyal
Director,
Product Marketing, Evertz Microsystems Ltd.

NMI (Network Media Interface)
Mr. Teruo Kajiura
Deputy General Manager,
Professional Solutions and Services Group Media Segment
Business Division Products & Solutions Planning Department,
Imaging Products and Solutions Sector, SONY Corporation

Mr. Tetsuya Miyazawa
General Manager,
Imaging Network Business Division,
Panasonic Corporation/ AVC Networks Company

Holding the World-first! IP Live Transmission Production Engineering Summit
A 4K/8K production environment built from influential alliances

IP transmission is said to be invaluable to 4K/8K program production. Because the speed of SDI transmission by existing coaxial cable is 3Gps, even by 3G-SDI, it was necessary to bind four 3G-SDI cables to transmit 4K/60p (12Gbps). However, due to cable-laying problems as well as to be consistent with the shift to a file-based production environment, IP transmission has been promoted.

IP transmission has many benefits. It is hoped that if communication technology continues to advance in the future, transmission speeds can be continuously enhanced and richer transmission will become possible. Additionally, the price of machinery may reduce, because the communication equipment has many users.

However, IP transmission at live broadcast program production sites such as sports broadcasts and concerts has been called the final barrier, because the hurdle stopping even greater realization, such as no delays, is so high.

Meanwhile, several IP transmission standards have now been proposed and company collaboration is advancing. Indeed, at the Inter BEE exhibition venue, there were demonstrations emphasizing collaboration with these alliance partners.

Grass Valley's IP solution corner exhibited a next-generation routing platform, "GV Node", which supports both SDI and IP enabling IP processing and routing in real-time. Sony proposed the efficient and high value-added "IP Live Production System", which transmits IP signals by optical cable and controls the entire system centrally via a network. Sony conducted a demonstration to connect all-IP sub-studios to the booths of companies belonging to the IP Live alliance proposed by Sony. Panasonic is actively involved in AIMS Japan which was started in 2016, such as taking on the burden of the board chair. It exhibited IP switchers and full-IP multi-channel delivery systems for cable TV. FOR-A gave a reference exhibition of an IP gateway that supports various kinds of IP stream mutual conversion. NEC has joined AIMS and IP Live, and connected to Sony's booth on this occasions to provide an IP transmission demonstration using equipment installed with NMI.

The panel discussion held on the final day of Inter BEE 2016, themed "World-first! IP Live Transmission Production Engineering Summit", discussed the various IP live transmission systems and future developments. There are currently five company alliances proposing transmission standards: AIMS which is led by Grass Valley; ASPEN led by Everts; NMI led by Sony; IP-VRS proposed by Media Links; and NDI proposed by NewTek. It was a world-first for representatives from these five groups to all gather under the same roof.

Firstly, representatives from AIMS, ASPEN, NMI, IP-VRS and NDI took the rostrum to explain their respective proposals. Each of these representatives emphasized the expandability of the system, reduced total costs, and the ability to flexibly handle new services as merits for transition.

After the proposals were explained, Mr. Tetsuya Miyazawa of Panasonic joined as a panelist and a panel discussion was held with Mr. Masanori Wada, the General Manager of the IP Development Division at FOR-A, acting as the moderator.

As 4K/8K program production continues to develop, converting to IP could be called a foregone conclusion. However, users would rather avoid a situation where multiple systems are coexisting in a central system. By promoting such discussion including the opinions of users in a public place, the development of a 4K/8K production environment for 2020 will speed-up if the fortunes of these ongoing powerful alliances can be integrated.

Various Cuts of the Jungle with One Computer Graphics Set:

Computer Graphic Jungle Created from Vast Materials Shot

The *Jungle Book* is a Disney movie that was released in the summer of 2016. This movie depicts the affection and conflict between a young boy raised in a vast jungle and animals. Almost all the scenes in the movie take place in the jungle. Surprisingly, however, almost everything apart from Mowgli – the boy who is the protagonist of this movie – is made with computer graphics. Everything is computer graphics – from the background featuring trees in a dense forest, the ground where pebbles roll and clear streams to the animals such as wolves, tigers and bears. We spoke to the makers of this vast jungle – Ms. Audrey Ferrara, MPC's environmental supervisor, and Mr. Adam Valdez, MPC's VFX supervisor.

Ms. Audrey Ferrara
Environmental Supervisor
Moving Picture Company

Mr. Adam Valdez
VFX Supervisor
Moving Picture Company

Jungle Created from Vast Materials

Many animals and plants were photographed in India as a reference for the CG work, based on an image board in order to create a jungle that doesn't actually exist. Everything was photographed carefully in detail – down to the leaves and the mosses.

The jungle was then built by computer graphics artists based on those photographs. The forests, rivers and rocky areas tailored to the cuts that the filmmakers wanted to shoot become one giant set.

This movie was made entirely with computer graphics – down to the twigs, leaves and pebbles underfoot. We asked Ms. Ferrara and Mr. Valdez about what hardships and ingenuity were involved in this production.

Ms. Ferrara: "I was overwhelmed by the amount of work that needed doing at first. We had to make many CG sets. There was so much to do I was really overwhelmed at first but also excited by the idea. However, we were somehow able to reach the end as if by magic, and we are all very proud of the MPC teams work!"

Mr. Valdez: "I thought it was very important to have a careful plan to make things look real. The depiction of the boy together with the animal characters in the jungle had to be very natural. Therefore, we planned and prepared carefully. We needed a sense that the boy was in this world. It was very important to make sure the lighting on the boy matched the lighting of the CG environments and animals, so when he looked at something and touched it or straddled an animal it looked real to the audience. Creating this sense of reality was the hardest thing we had to do. Therefore, it was important to carefully plan it all."

Technique of Making an Entire World

Post production took over a year and involved more than 800 computer graphics artists working at MPC in London and MPC Bangalore, India. Reference photography took place in 43 locations in India. Finally, 58 CG jungle sets were created called the master set. The total area of this set extended to 30 km².

Extremely photorealistic visuals were created by MPC's VFX artists, based on the vast quantity of photography shot in India. Leaves, rocks, twigs and trees were all reproduced digitally and placed throughout the digital environments. Adding fine details (e.g. light and the subtle swaying of the plants) here produced a movie that depicted an overwhelming sense of reality. We spoke to Ms. Ferrara and Mr. Valdez about what they wanted to try and do next, after overcoming the challenges in this movie.

Ms. Ferrara: "I want to make something even more photorealistic than this movie in my next project. That is because I can see a number of challenges I would like to work on when I look back at this movie. I want to make a movie that doesn't make me think 'if I had planned that out a little more' when I look back at it."

Mr. Valdez: "I have taken various inspiration from the game industry this time. Extremely advanced technologies are used in games in which an entire world is created. I realized that this is quite difficult when we attempt to follow this method. I would like to make movies with persuasiveness using the technologies of games (e.g. real-time graphics) in the future. For example, I would like the lighting to have more of a scientific basis."

Diving into much-loved tokusatsu -
From filming with miniatures to CG
Tracing 30 years of Shinji Higuchi

Mr. Shinji Higuchi
Movie Director / Special Effect Director

History of Tokusatsu and Mr. Higuchi

"Tokusatsu" combines special methods to enable images that cannot normally be filmed. "*Godzilla*", produced in 1954, was a breakthrough in Japanese movies. Higuchi grew up watching a multitude of movies and TV programs inspired by Godzilla, and read-up on the making of such works in magazines. Through this interest, it came to him, that "some amazing person was making these movies", and he eventually played an active role in his passion by working part-time at the filming of a Godzilla movie when he was 18.

He also took part in the amateur movie company, DAICON FILM. He then joined GAINAX, which was formed by the same members. He then became a freelance movie maker, making movies including the Heisei era "*Gamera*" series, "*Sakuya: yōkaiden*", (Sakuya: Slayer of Demons), "*Shurayuki Hime*" (Lady Snowblood), "*Pistol Opera*", "*Lorelei*", "*Kakushi Toride no San Akunin*" (Hidden Fortress: The Last Princess), and "*Nobo no Shiro*" (The Floating Castle).

While making such movies over a 30 year period, his technique changed from tokusatsu using miniatures to CG (computer graphics) VFX (visual effects).

Mr. Higuchi says that while taking on challenges such as "making a movie like Star Wars", "producing a lived-in feel that makes miniatures look just like the real thing", "shooting with real scenery rather than relying on models", his technique became "CG without miniatures" as a way to save manpower.

Lacking an ample budget, Higuchi unconsciously tread a dangerous course while seeking what could be done using this technique.

Expression I want to aim for in the future

After his speech, we asked Mr. Higuchi about tokusatsu and future plans.
− Looking back, how did it go?
Higuchi: The speech was for one hour and a half so my intention was to bring as many video materials as possible. But I finished explaining my life's work quicker than expected, which saddened me (laughs).
− In the current era where CG video expression has become the norm, "*Kyoshinhei Tôkyô ni Arawaru***" (Giant God Warrior Appears in Tokyo), which included tokusatu techniques, was well-received.**
Higuchi: I wanted to go about it properly, but tokusatsu using miniatures has now become the most expensive method. Old techniques can be made less expensive, but a cheap look is unacceptable – these are my main concerns. On more and more occasions, we were saying, "So wouldn't it be cheaper to do it with CG". How do we create value by choosing tokusatsu despite the advantages of CG? We have to create this value.
− What new challenges do you want to take up in the future?
Higuchi: I want to develop these works by working with younger people and people from abroad. I can't achieve anything alone. Over the last 10 years, during which I set up in business myself and tried various things out, I have come to see basically what's what. Maybe I could just develop that further, but I would rather come into contact with different kinds of people in new fields – find new expression, and so on. I think that the NHK drama, "*Guardian of the Spirit*", I am currently working on could be such a project.

Mr. Shinji Higuchi, the film director, is the talk of Japanese movies for his work on "*Shingeki no Kyojin*" (Attack on Titan; 2015) and "*Shin Godzilla*" (New Godzilla; 2016). As a young boy growing up during the golden period of kaiju (monster) movies, how did he gain his admiration for tokusatsu (special effects) and where has this admiration led him? Revealing that background in his INTER BEE CREATIVE Keynote Speech, we asked him to look back and talk about his future aims.

Unexplored territory
– taking on the challenge to make a TV drama in 4K/HDR Improving and determining accuracy in 3 steps -

NHK is a pioneer of TV, producing content that is ahead of the pack. It was publicly announced in 2014 that the NHK taiga fantasy drama, "Guardian of the Spirit", was to be filmed and produced in 4K. Season 1 was broadcast in HD in March 2016, and an experimental 4K broadcast went out in autumn. The next step for "Guardian of the Spirit" will be HDR. Differing approaches have been taken for the already-produced season 1, and seasons 2 and 3, which are due to be broadcast in spring and winter 2017 respectively, and HDR is eagerly being introduced into TV dramas. We asked Mr. Kosaku Maeda of NHK Broadcast Engineering Department and Mr. Yuta Maruyama of NHK Engineering Administration Department about what kind of approaches will be taken in the future.

First step: converting from SDR to HDR

There were no plans to make "*Guardian of the Spirit*" in HDR at the production announcement stage. The decision to make it in HDR just before Season 1 was aired was down to the belief of engineering staff such as Mr. Maeda that "we have to do it now", and the strong desire to make it in HDR when exhibiting it as a sample of 4K drama at MIPCOM in France.

"First, a test was conducted. The color and feel was extremely realistic, and we found that color is added to blown-out highlights in SDR. Conversely, we discovered that doing it by the conventional method would be difficult as light attenuation was clearly found and differences in brightness and darkness were highly visible. Creating suitable video in SDR was the primary concern. Therefore, we decided to make a HDR version in three steps." (Mr. Maeda)

The plan was as follows: "season 1: convert from 4K/SDR videos without subtitles to 4K/HDR by grading; season 2: filming in both 4K/SDR and 4K/HDR formats; and season 3: filming in 4K/HDR and making a 4K/SDR video for broadcasting purposes."

Mr. Maruyama was in charge of converting to HDR for season 1. Because the HDR conversion time was limited to one month due to the seasons 2 and 3 filming schedules, grading was performed in 4K/SDR. Based on that, the highlighted part was extended, color was adjusted, and grading for HDR was performed. However, in the case of processing failures and things that needed treatment, they went back to the S-Log 3 filming data and regraded the HDR images.

"We were able to achieve a three-dimensional effect and great array of color. However, because things like metallic luster are really beautiful in HDR you want to show them, but eyes focus on that rather than the actors, the real stars of the piece. So, getting that balance right is important." (Mr. Maruyama)

Aiming for better HDR through accumulated knowledge

For season 2, a VE for HDR and an HDR monitor were prepared for shooting simultaneously in SDR and HDR. However, this was still unexplored territory, so decisions were made based on impressions of SDR.

"There was ample light at the filming location, so the evening scenery and color of the sky were greatly different to impressions of SDR. The VE worked hard to prevent changing the world appearance in HDR and SDR. Conversely, extremely exciting movie-making can be achieved in HDR." (Mr. Maeda)

He also says that painstakingly portraying the intensity of fine light is also exciting. For example, smoke just becomes a uniform haze in SDR, whereas in HDR, the light and shade of each and every particle is shown. Also, people's skin and differences in clothing materials are also very clear, so there is a strong sense of presence.

Based on these experiences, a trial to create SDR from HDR will be performed for season 3. Mr. Maeda says, "We'll probably shoot it making use of bright and dark parts, which is a different approach to before. Also, the way to accentuate shade and light as used for SDR may fail when converting from HDR to SDR, so we will probably have to regrade it."

For season 3, we intend to put to use the knowledge accumulated through five months of filming season 2.

Mr. Kosaku Maeda
Technical Operations & Engineering Center,
Technical Planning & Management Division,
Broadcast Engineering Department,
NHK

Mr. Yuta Maruyama
Program Engineering Division,
Engineering Administration Department
NHK

From left
Mr. Kei Wakabayashi
Editor in Chief, WIRED Japan
Moderator: **Ms. Mariko Nishimura**
Chief Editor, SENSORS.jp
CEO, HEART CATCH Inc.

Mr. Naotaka Fujii
Representative Director, Hacosco Inc.
Mr. Atsushi Wakimoto
General Manager, Cultural Division,
Computer Graphic Arts Society (CG-ARTS)
Secretariat Director, Japan Media Arts Festival
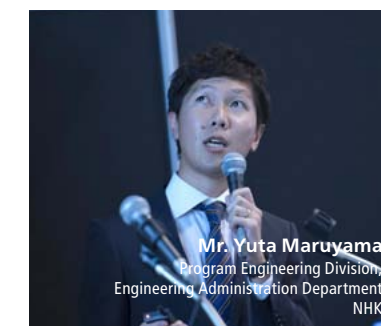
Mr. Ichiya Nakamura
Professor, Graduate School of Media Design
Keio University

The Creation of New Smart Media Services Looking toward 2020
The Day the Border between Broadcasts and Communications Disappears

In "INTER BEE IGNITION - Outlook 2020," one of the INTER BEE IGNITION keynote lectures, Mr. Ichiya Nakamura, Professor of Keio University Graduate School of Media Design, delivered a lecture titled "2020 × Pop & Tech." A panel discussion was held on the theme of "Future of Media & Entertainment Opened Up by Technology." The moderator was Ms. Mariko Nishimura, Chief Editor of SENSORS.jp and CEO of HEART CATCH Inc. The three panelists were Mr. Kei Wakabayashi, Editor in Chief of WIRED Japan, Mr. Naotaka Fujii, Representative Director of Hacosco Inc., and Mr. Atsushi Wakimoto, General Manager of Cultural Division, Computer Graphic Arts Society (CG-ARTS) and Secretariat Director of Japan Media Arts Festival.

Social Media Continues to Grow

Looking toward 2020, Mr. Nakamura spoke about the future direction, current situation, and future prospects of visual media, including media for Japanese pop culture. According to him, on the assumption that "an ideal environment will have been provided for smart media in Japan by 2020", it is important to create a situation in which "technologies such as smartphones, signage, and 4k/8k public viewing are used anywhere and at any time."

He said, "Social media has achieved rapid growth in terms of business and traffic from around 2010. As for visual media, online video services for smartphones and televisions have started to grow in earnest this year. Recently, as a distinctive feature of this aspect, each broadcaster typically has had their own strategy. Online video business has been expanding steadily, and 10 million people had used these paid services at the end of last year. This number is expected to reach 15 million by 2018."

In addition, digital signage service, which can be called a new video service, is expected to expand further. In May of 2016, the Next Generation Contents Distribution Forum (NexCDi-F) was established, which will build the foundation for advanced video services looking toward 2020. "A cross section of Japanese government departments, especially Cabinet Office's Intellectual Property Headquarters, is developing media strategies, which are expected to result in the promotion of the secondary use of online videos and business expansion into overseas countries," Mr. Nakamura noted.

Technology and Content Help Each Other

Making "Future of Media & Entertainment Opened Up by Technology" a central theme, the panelists stated their opinions from their perspective about the future of the entertainment industry and deepened the discussion.

In this panel discussion, Mr. Wakimoto pointed the necessity of cutting-edge technology as a content element by citing the example of automatons developed in the Edo Period, however, he also pointed that the technology is not the only factor to establish the entertainment. Mr. Wakabayashi said, "For example, movies surprise people with their technology only when it has first been introduced. However, as time goes by, the technology itself is replaced by new technology. In the current situation, where technological innovation is occurring more and more rapidly, the life cycle of technology has become shorter. Excitement over innovations, high-resolution of 8k for example, will be over in a blink of an eye."

Killer Content Maximizes the Power of Sophisticated Technology

The panelists entered into a discussion about "killer content" that maximizes the power of sophisticated technology, which will help create business and cultures. Examples included Jimi Hendrix, who was absolutely essential for the popularity of electric guitars, and Michael Jackson, whose music videos popularized MTV. In addition, while highlighting the importance of killer content, they pointed out that standardization prevents content from developing further.

Mr. Fujii suggested that people add the word "artist" to their job title and believed that this addition would help them to make their consciousness free from tradition and to develop products or services in a creative manner. "Even if you are an ordinary office worker, the title of artist will earn you recognition as an artist. By getting the feedback from society, motivated people can gain encouragement." he added.

Mr. Yoichi Ochiai
Media artist
Assistant Professor, University of Tsukuba

The Future in which the relationship between content/media and humans changed by 4K/8K and Artificial Intelligence

Powered by SENSORS

As a new plan at Inter BEE 2016, the "INTER BEE IGNITION" media art session was held on the morning and evening of the 17th, outlining new media potential in presentations and exhibits. Through cooperation with SENSORS, the morning session was directed by Ms. Mariko Nishimura, Editor-in-Chief of SENSORS.jp, and the evening session was overseen by Assistant Editor-in-Chief Mr. Takato Ichiki.

Mr. Yoichi Ochiai, media artist and Assistant Professor at the University of Tsukuba, took to the stage in the morning session and spoke at length about the future of media. The afternoon panel was made up of Mr. Tomokazu Yamada, Filmmaker and Film director; Mr. Takayuki Suzuki, President & EnterTech Accelerator of ParadeAll; and Mr. Kenichi Yoda from the Business Management, Business Development Division, Corporate Planning, President's Office at Nippon Television Network. The panelists dug into current trends, challenges and future prospects under the title of "New ways of enjoying music - the future of live entertainment".

A Modern Magician Speaks of the Future of Media

Ms. Nishimura opened the morning session by stating: "I would like us to consider the 'power' of content and media, and I hope to deepen the discussion of our vision of the future of television."

Mr. Ochiai is producing various works as a media artist. At this session, he introduced some of his latest pieces. One of these works Mr. Ochiai describes as follows: "Recently, I have formed a company and produced a new speaker product. This is an ultra-directional speaker whose sound can be heard only within small spaces measuring 5cm x 5cm. Using this speaker, I produced a piece at a disused junior high school in which the sound of the school could be heard only within a limited space. The keyword here was a 'ghostly' sense whereby normal school sounds could be heard even though the school itself was closed."

This is a form of art that incorporates mechanisms to give a sense of context in normal places and in unlikely places. Besides this too, he is also working on productions that display 3D images with plasma in vacant spaces and which give a sense of texture to spaces.

In the 8K Era, Displays Will Change into "Windows"

Through works such as these, Mr. Ochiai says that he is researching the gap between images and materials from a human perspective. Mr. Ochiai's point of view is such that 4K and 8K images are not merely for the viewing of television broadcasting and content: "Once we reach 8K, this becomes a 'window'. If you have an 8K monitor in your room, you could probably live comfortably without windows because the 8K monitor could project your preferred scenery. And if a person were to be projected there, you could also enjoy real conversation." Mr. Ochiai points out that the forms of communities will change with the arrival of 8K images, as they present reality without the need for concentration.

Mr. Takato Ichiki
NTV SENSORS Editor
Mr. Takayuki Suzuki
President & EnterTech Accelerator, ParadeAll, Inc.

Mr. Tomokazu Yamada
Filmmaker and Film Director
Mr. Kenichi Yoda
Business Management, Business Development Division,
Corporate Planning, President's Office,
Nippon Television Network Corporation

Moving towards Producing Spaces for Music

According to Mr. Yamada, who took to the stage in the afternoon panel discussion, "The era in which worlds produced by music video direction are consumed only through music videos is ending, and we are now moving towards producing actual spaces for music. The boundary lines between reality and unreality are progressively disappearing." Mr. Yoda, who took charge of directing an event incorporating VR in an arena-class venue mark the 30th anniversary year of Dragon Quest, explains that "Japan's music-related artists have such status that they tend to perform nation-wide tours or tours of dome stadiums, but I think that a breakthrough has been made in devoting our energies to this kind of permanent production. Transmitting and monetizing Japanese culture will not only lead to new productions, but will also produce stable employment and lead to development of the industry."

From left in the photograph:
Mr. Jim Chabin
Chairman, Advanced Imaging Society
Mr. Guy Primus
The Virtual Reality Company CEO
Mr. Takashi Kawai
Japan Committee Chair, Advanced Imaging Society
Professor, Faculty of Science and Engineering, Waseda University

2017: Year One of VR
VR will create new value in entertainment and change business in all industries

Virtual reality (VR), augmented reality (AR), holograms and other advanced video technologies are attracting increasing attention. Against this background, a new project called INTER BEE IGNITION was held at Inter BEE 2016 to explore new media possibilities. The Advanced Imaging Society based in the United States also transferred an event it had previously held on its own unchanged to Inter BEE.

The Japan Committee of the Advanced Imaging Society held the ceremony for the Lumiere Japan Awards during this event. In addition, the Advanced Imaging University Seminar was given by Mr. Jim Chabin, Chairman of the Advanced Imaging Society; Mr. Guy Primus, who serves as the CEO in The Virtual Reality Company that was responsible for the VR production in *The Martian* movie by the director Ridley Scott; and Mr. Takashi Kawai, who is a professor in the Faculty of Science and Engineering at Waseda University while also serving as the Japan Committee Chair of the Advanced Imaging Society.

The men talked about the position of the VR business in the video industry and their vision for the future in addition to the latest situation for VR that is being tackled by the movie industry in the United States in this seminar. We spoke to these three men who took the podium at this seminar: What kind of impact will VR have on the video industry? What is indispensable for the development of the VR business?
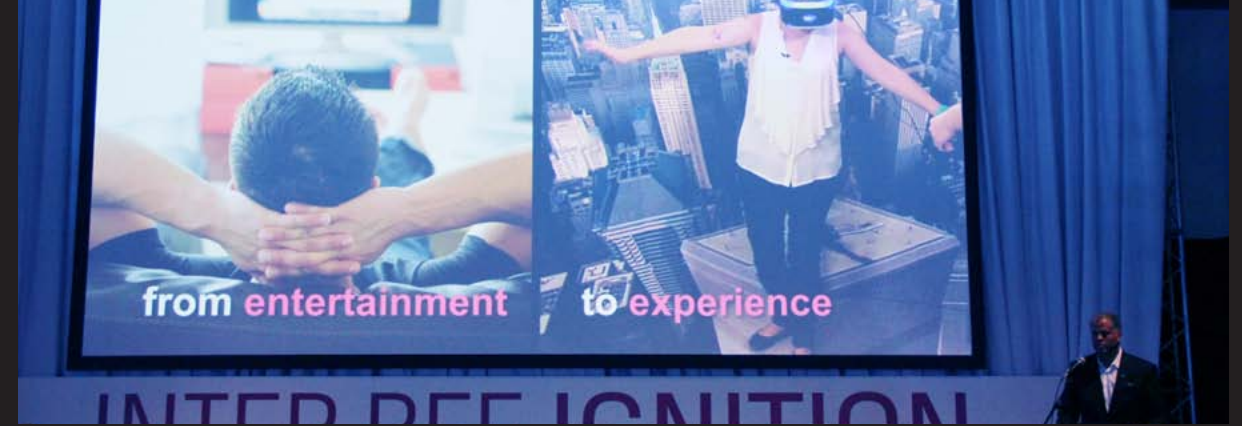
VR will spread to all industries

How do you see the current situation for VR that is attracting increasing attention in both the United States and Japan?

Mr. Chabin: VR has the greatest potential among existing platforms. I expect VR will also have a massive effect on education and training in the industrial field by taking advantage of its rich expressive power in addition to the movie and entertainment fields. This is not just a movie theater issue like with 3D; we are in contact with companies outside the movie industry, such as Intel, Google and Hewlett-Packard. I expect this will increase the range of the industry.

This will no doubt become a global trend. It is possible to see companies in the United States, Europe, Japan and China coming to utilize VR. This is at a completely different level of the excitement over 3D. It is very important that companies which think seriously about how to make people happy and entertain people with VR like The Virtual Company where Mr. Guy Primus serves as CEO steadily enter this industry and take on new challenges in VR.

The life of content is the story

Will VR become established as a new form of content instead of proving a passing phase?

Mr. Primus: VR is a ground-breaking technology that enables new video expressions. However, attractive content is not created with technology alone. The stories of works are the most important thing to establish VR as a new form of content. The existence of excellent storytellers is indispensable.

There are excellent storytellers with a proven track record in major movie companies. We employ Robert Stromberg, who was involved in the production of the *Avatar* movie by the director James Cameron, as one of the heads in our company. It is reassuring to have one of the big names in the industry. There are high expectations from the industry as a whole.

Mr. Kawai: It is impossible not to think about 3D stereoscopic viewing when talking about VR. It is possible to see 3D stereoscopic viewing in movie theaters, but this has not yet spread widely in homes.

It is necessary to think about what the industry as a whole should do to popularize VR upon analyzing 3D stereoscopic viewing so that we do not go down the same path as that technology. It is not true that any content in VR is good. I think it is important to thoroughly think about whether a work is suitable for VR.

Investigations and research are essential to master VR

What is important to develop the VR market?

Mr. Primus: It is not that straightforward to produce really attractive VR content. It is important to use VR after investigating and researching its features and the optimum production techniques.

Mr. Chabin: Game machines like the PlayStation that allow people to enjoy VR software have spread widely. I think that 2017 will be year one of VR and welcome in a massive increase in popularity of VR. VR is sustainable and will become a powerful foundation of business. I would like to encourage many companies to proactively invest in this technology.

Mr. Kawai: We have already started to find various problems that need addressing when we perceived VR from the viewpoint of the user. The understanding of the basic cognitive characteristics of VR is one of these. I wonder what impact VR will have on the behavior of people from the viewpoint of human engineering that is my specialty. I would like to think about this including both the positive and negative aspects.

For example, in terms of the positive aspects, I wonder what kind of value VR will give users and society. I think it is very important to continue clarifying this. I would like to carefully organize/analyze content and turn the tacit knowledge possessed by creators into tools to contribute to the creation of an environment in which it is possible to make even higher quality content.

Provision of a New Way to Enjoy Sports:
From Minor Sports to Major Sports

Mr. John Gleasure
Chief Content Officer (CCO)
UK Performance Group "DAZN"

Mr. John Gleasure, Chief Content Officer (CCO) of the UK Performance Group "DAZN," took the podium and delivered a talk titled "Expansion by DAZN into the Japanese Market and Future Business Prospects" for the INTER BEE CONNECTED keynote speech on November 16. The Performance Group is a digital sport content & media group that provides sport-related content production and services based in the UK. This group acquired the right to broadcast the J League in July and then started a specialist sport live streaming service called "DAZN" in Japan on August 19, 2016. We spoke to Mr. Gleasure about the expansion of DAZN into the Japanese market when he visited Japan.

Acquisition of the Number of Members Exceeding the Number of Paid Broadcasting Subscribers in Japan within Four Years

The sport live stream service "DAZN" is a multi-device OTT service for televisions, PCs and smartphones/tablets. We started this service in Germany, Austria and Switzerland from August this year after undergoing market research over three years. We then launched this service toward the Japanese market on August 19. Our service model is a subscription model. We provide this service for 1,750 yen per month in Japan. I can't say how many members we have at the moment. However, we have already exceeded our global membership target for the year. I think it will be possible to acquire more subscribers across the planet than there are currently subscribers for paid broadcasting in Japan within four years. There are various kinds of sports in Japan. I think the potential size of DAZN is huge.

Real Thrill of Watching Sport on a Large Screen with the Convenience of Mobile

DAZN was originally intended to be a service that you could watch on a large screen. Therefore, we focused our efforts on enhancing services when being watched on a television. In addition to this, we also provide it on devices that can be used by IPs so it is possible to use and view the tools the user wishes to use in the places they wish to watch them.

It is possible to watch this service on televisions equipped with a browser and Blu-ray players. Sony, Panasonic, LG and other manufacturers offer compatible models. Furthermore, it is also possible to watch DAZN with Amazon Fire TV and Fire TV Stick. This service supports both Android and iOS smartphones and tablets. It is also possible to watch it on a PC.

We have developed various services for viewing locations and times. For example, after watching a J League match at the stadium, you can watch the clips you are interested again on your smartphone or tablet while traveling home as a mobile service. We have also made the UI simple so that it can be used intuitively.

Focus on Sport with Enthusiastic Fans

DAZN provides a new way to watch sport for sport fans in Japan with diverse services and an abundance of content.

We are considering expanding the range of sports we provide – from minor sports to major sports. In terms of Japanese sports, we have the home games of the Yokohama DeNA Baystars and the Hiroshima Toyo Carp in professional baseball, the J League, Bundesliga, the Serie A, the FIFA World Cup 2018, Japan Rugby Top League, volleyball's V League and more. We also deliver sports that are popular internationally, such as the NBA, NFL, NHL, Formula 1, golf, darts, badminton, horse-riding and more.

There are many sports that have enthusiastic fans, but which are not broadcast on terrestrial television for the mass audience. We want to pick up sports that you cannot see on the television for such enthusiastic fans. We have already acquired the right to broadcast squash.

There will no doubt be various developments in the sports world in Japan toward the Tokyo Olympic Games in 2020. The Rugby World Cup will also be held in 2019. We would like to consider acquiring the right to broadcast sports that will be a part of the Olympics (e.g. tennis, basketball, rugby and horse-riding) while talking to content holders regardless of the number of people who follow those sports.
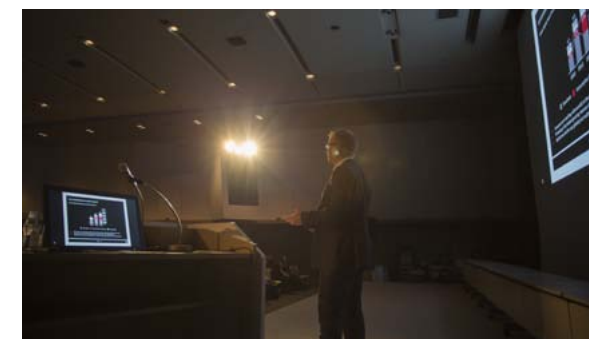
Video Delivery, Advancing to New Stages Competition is Intensifying with More and More Participants from Overseas

Mr. Yasuyuki Tazawa
Director, Content Distribution Business
Tokyo Broadcasting System Television, Inc.

Mr. Hiroshi Ohba
Co-Director, Digital Business Center
TV Asahi Corporation

Mr. Masahito Ota
Senior Director, Cyber Business Strategy
Nippon Television Network Corporation

From left:

Mr. Kazuo Nomura
Deputy Director, Content Creation and Distribution Department
Fuji Television Network, Inc.

Mr. Shinjiro Ninagawa
Director, TV Tokyo Communications Corporation

On the second day of scheduled sessions in this third annual INTER BEE CONNECTED event, the segment "Video Delivery of Key Stations in 2016", which is included every year and is always a highlight, was held. This has become a discussion event that truly represents INTER BEE CONNECTED, and welcomed its audience to a meeting hall equipped with a seating space expanded over that of the previous year. Even then, it was so popular that a larger number of people than ever attended, filling the capacity of 210 seats completely with some even watching the discussion while standing. With catch-up services from each station fully assembled together with the shared portal TVer in 2015, the session clearly showed that this year was one in which each station moved into new stages of their development.

To begin, the session's moderator Mr. Mikio Tsukamoto from Wise Media showed slides depicting the activities carried out over the year to summarize the premises for the following discussion. In September of last year, Netflix and Amazon launched SVOD services, and in this year several new types of video services began, including flat-rate sports program video delivery by DAZN and Sportsnavi Live, and the launch of AbemaTV. Continuing on from this, each key station gave a presentation on its recent activities.

Mr. Mikio Tsukamoto
Media Strategist
Representative Director,
Wise Media, Inc.

Reports by Individual Stations on their Latest Video Business Strategies

Mr. Kazuo Nomura from Fuji Television explained about this year's expansion of the service content of FOD (Fuji TV on Demand). In addition to a substantial increase in the number of programs subject to its catch-up service "Fuji TV Plus 7" from 14 to 24, the service has also been equipped with a function for separating out displayed advertisements. While enhancing its electronic document business, the company has made a full-scale entry into SVOD, and has greatly expanded its service content with measures including the submission of original programs. It has also started undertakings into VR, and is becoming a video delivery company able to offer a wide variety of entertainment options.

Next, Mr. Shinjiro Ninagawa from TV Tokyo Communications made a presentation on the deployment of his company's video delivery business, centered on the idea of being "TV-Tokyoish". He explained points including the company's plan to maximize its reach by locating more and more contents in positions applicable to an all-directional sales policy, and by striving to build a business ecosystem that comprises the steps of "broadcasting ↔ promotion ↔ monetization".

Mr. Yasuyuki Tazawa from TBS explained that TBS substantially redesigned its video delivery service in October, implementing a dramatic change in direction from its previous "branch office principle" of providing programs to services of other companies while owning no services of its own. Completely separate from its catch-up service TBS FREE, it has launched an SVOD service for unlimited premium viewing which allows customers to view content from its extensive archive of drama programs for a monthly fee of 900 yen. Of this amount, 500 yen can be used for "pay-as-you-go" services, making it ultimately very reasonable and leading to extremely rapid growth in its number of users. Mr. Tazawa explained that rather than shifting from its "branch office principle" to a "head office principle", TBS is instead adopting an "all-inclusive head office principle".

Mr. Hiroshi Ohba from TV Asahi began his presentation by explaining that the reason he was not able to clearly explain TV Asahi's strategies at this same event last year was that at the time, various planned projects were in progress but still being kept confidential. This time, he described the overall strategy which could not be divulged last year due to the preparation of AbemaTV. He spoke about TV Asahi's "5-Media Strategy" which combines 5 types of media including the Internet and Media City (event venues including Roppongi Hills and EX Theater) in addition to terrestrial broadcasts, BS, and CS, and which is deploying video delivery ranging from AVOD to TVOD and SVOD, in collaboration with other companies.

Mr. Masahito Ota from Nippon TV took the platform next, making it his third consecutive year to speak at this event. Mr. Ota, who explains Nippon TV's organized strategies in a clear and easily-understandable fashion every year, announced the current state and ideas of the catch-up service TADA and flat-rate video delivery service hulu. His presentation content noted that since hulu's acquisition from a U.S. media company, its membership has been growing smoothly and is expected to increase even further from its status of 1.3 million users as of March of this year. It was also noted that although half of its total users are smart device users, examination of the data for viewing time reveals that television use accounts for a greater amount of time. He further indicated that a large-scale renewal of Nippon TV's video delivery service is currently being prepared.

Mr. Ninagawa from TV Tokyo Communications then once again took the stand to speak about TVer. He reported that even though it is being overshadowed by the strength of AbemaTV, the number of times the TVer application has been downloaded is rising steadily and has exceeded 4 million downloads.

How to Best Apply the Predominance of Television

The latter half of the session was a discussion moderated by Mr. Tsukamoto. Questions were posed on a variety of topics including the ideas people have about SVOD, measures to compete with overseas businesses, and the relationship between video delivery and time-shift viewer ratings. In closing, Mr. Tsukamoto showed slides of data comparing the use of video services, indicating that TVer's MAU (Monthly Active Users) status is currently struggling to expand. Although the question of "What are your future plans involving TVer?" was deftly presented as a decisive question, all of the stations' responses were somewhat ambiguous. Mr. Ota's answer of "It would be difficult to operate with just TVer", hinted at the difficulties that exist with jointly-deployed services.

With the debut of AbemaTV and the successive launches of LINE's live video delivery service and Internet-based video services like CChannel, it is likely that there will be upcoming questions on how to best utilize the predominance of television stations in video delivery, and not only with regard to TVer. This session clearly revealed both the evolution of each of the participating stations and the many difficulties present in this field.

Moderator
Mr. Shotaro Ono
Faculty of Letters 3rd grade,
Keio University

Mr. Yugo Katsuyama
School of Social Sciences 4th grade,
Waseda University

Mr. Yohei Harada
Youth Life Lab Leader
Hakuhodo Brand Design,
Hakuhodo Inc.

Mr. Kazuyuki Maeda
Faculty of Business and Commerce
4th grade,
Keio University

Mr. Toshiki Matsui
Faculty of Business and Commerce
1st grade,
Keio University

Ms. Risa Aburai
Faculty of Law 2nd grade,
Meiji Gakuin University

Watching TV on YouTube

The five students participating in this session consisted of Mr. Ono, Mr. Maeda, and Mr. Matsui from Keio University, Mr. Katsuyama from Waseda University, and Ms. Aburai from Meiji Gakuin University. Mr. Harada, serving as moderator, directed the session by posing questions related to television and media contents to the students in turn, and asking each of them to answer.

In response to the first question "Do you watch TV?" all of the students unexpectedly answered "Yes", with details such as watching TV with their parents since they live at home, or watching TV when they get bored since they live alone. Yet upon closer questioning, further responses including "I don't really know what's on, on which day" or "I hear about interesting programs from friends and then try to look for them on YouTube" showed that they did not have active television-viewing habits and instead often only watched the sections of programs that they wanted to see on YouTube.

Continuing on with questions about TVer, although some of the students were not aware of it, in general it seemed that they knew of its existence. However, asking more detailed questions prompted replies such as "I don't use it since I don't keep up with current programs" and "I don't use TVer since I just watch the parts I want to see on YouTube".

Current University Students Give their Honest Opinions on the Relation between Young People and Television

In the final session held on the first day of INTER BEE CONNECTED, "Moving Further Away from Television? The Ecosystem of Young People", students currently enrolled in universities spoke frankly about their own media lifestyles. It is said that today's young people are experiencing a movement away from television as a prominent part of their lives, but how much is this shift proceeding? Under coordination by

Mr. Yohei Harada of Hakuhodo Brand Design's Youth Life Lab, a panel of students was asked to speak honestly about the mindset of today's youth toward television and the specific details of their lifestyles. From this session, it was evident that although young people do not have negative views toward television in any way, its status is clearly changing to move out of alignment with their daily lives.

Individual Preferences in Viewing with Paid Video Delivery Services

There were extremely large differences among the students regarding new services like AbemaTV and Netflix. While some of their responses praised AbemaTV with opinions including "I was happy that they showed the Japan Series", "I found out about them because of their anime marathons", and "I like that they show live music concerts", there was also a remark that "Many people just have it installed but never use it." Regarding SVOD services, comments such as "People I know who like foreign drama shows use Netflix", "People who like Korean programs watch them on U-NEXT", and "dTV is good since it lets you download when you use it" showed that different services are being used depending on user preferences.

When the students were asked about what drama series they enjoy watching, their responses showed an unexpectedly wide range including "*Nigeru wa Haji da ga Yaku ni Tatsu*", "*Jimi ni Sugoi! Koetsu Girl*", "*Sukina Hito ga Iru Koto*", and "*Yusha Yoshihiko*", with each person being closely dedicated to his or her favorites. The quality of "familiarity" was raised as a factor contributing to favorable reception by young people, with students wanting to watch programs if they feature a place they have been to themselves, and in turn becoming interested in visiting places that they have seen in drama programs.

Strong Sense of being a Minority

When Mr. Harada asked the students if they had any suggestions to give to TV stations, the answers were very intriguing. Broadly summarized, it appears that the main request is for a higher level of participation in TV programs. There were many comments such as "The comedy performance program where viewers could cast votes was a lot of fun", "I'm happy when I can get excited and into a show", and "It would be nice if there were programs that use our opinions for reference", and even just displaying Twitter comments during a program seems to make a large difference in its impression.

Regarding this, Mr. Harada explained that the young people of today have an awareness of themselves as a "minority". They are well aware that the majority of the elements in mainstream culture differ from those in their own lives, giving them the impression that they belong to a minority group. This leads to feelings of dissatisfaction, such as when they see a decrease in the number of programs featuring performing idols and therefore do not know what the latest trends are. Programs that had a position of being specifically targeted toward the young segment have all but disappeared, and it is likely that the feeling of being unable to participate in things that are currently popular is widening the distance between television and young people. However, it was also clearly understood that the students do have a strong interest in dramas and variety programs, and so there is a feeling that gaining favor is mainly dependent on the methods used. It may be said that the most important point is for television stations themselves to have a strong interest in the lives of today's young people.

Newly-added plans and more varied experiences Hopes for the future born from encounters with good sound

Mr. Koichi Hanzawa
Representative
Innovation, Inc.

The INTER BEE EXPERIENCE X-Speaker: SR speaker demo (first and second times were line array speaker demos) event was the third held since the 50th commemorative exhibition. The improved lineup of the newly-added point source speaker category together with the previous compact and medium and large line array speaker categories were a highlight. Additionally, the new EXPERIENCE events, "X-Headphone" and "X-Microphone", were held at the trial listening exhibition area of Exhibition Hall 2, where there was a collection of headphone/microphone products commonly requested by visitors. Ten companies participated in X-Headphone and 7 companies in X-Microphone, and many visitors came to the venue. We asked Mr. Koichi Hanzawa of Innovation, Inc. about his impressions of EXPERIENCE. Mr. Hanzawa has operated as a sound engineer at musical artists' live concerts and taken part in the event for three consecutive years through news reports for the magazine, "PROSOUND".
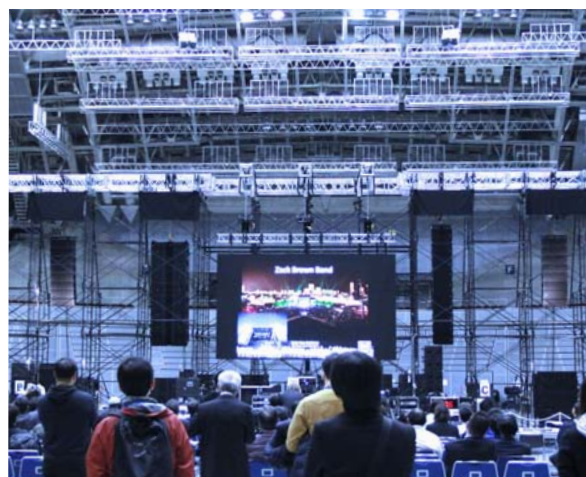
Point source speakers – high rate of operation and wide range of users

Mr. Hanzawa assessed the newly-added point source speaker category: "Inter BEE has widened in scope as an event. There are still many people that need point source speakers." Small to medium speakers like point source speakers have a high operating rate over a year compared to large speakers. Live stage venues use point source speakers together with large speakers. Also, point source speakers are mainly used at non-music related small event venues such as theaters and public spaces. They are used frequently and demand for these speakers is high even now. Mr. Hanzawa says, "Point source-type speakers are compact and easy-to-use. Recently, their performance has improved further and, these days, a fixed level of noise is guaranteed whatever the product. Therefore, I think that the introduction of point source speakers will continue to meet professionals' needs and spread to the consumer segment as well."

Increased number of female visitors and wider range of age groups

The exhibition's profile has risen due to its long history, and the mix of visitors has changed. The number of women has increased and, in addition to the core age group of 30 to 40 year-olds currently active in the field, a large number of 50 to 60 year old participants also visited.

Mr. Hanzawa says, "Perhaps you are imaging how you would use such equipment at your places of work. You, ladies and gentlemen, are the ones producing sound at work, so you surprisingly don't have much time to hear this sound objectively from the standpoint of the audience."

The flow of Inter BEE 2016 was said to be the easiest to understand to date. Mr. Hanzawa says, "I felt that the event was a lot tighter. The overall flow of the event over the three days was smoother and its concepts a lot clearer. It was designed in a way that clearly shows visitors what the exhibition is trying to do even if the visitor is experiencing it for the first time."

From amateurs to professionals that love music

Talking about the "X-Headphone" and "X-Microphone" events newly held at Inter BEE 2016, Mr. Hanzawa says, "It's a valuable place for professionals to try out new products, but it's also important for amateurs and young people studying music and video production to experience these products firsthand." Expressing his hopes for the exhibition, "By encountering good sound and good products, hopefully it will lead to many people deciding to take it up professionally."

Hopes for ideas anticipating future sound creation

Mr. Hanzawa talks about future INTER BEE EXPERIENCE as follows.

"This event has produced great value as a place to test the latest equipment that cannot normally be experienced. In addition to that, I hope that the event will consider idea-proposing projects in the future. Something like - wouldn't it be good if sound production was like this in five years' time? I think that it would be even more interesting if the event functioned as an opportunity to try out and experience completely new ideas."

Mr. Hanzawa says that Inter BEE proposes ideas for the near future, and if the participants hit on a good idea after experiencing these ideas, then that would really embody the ideals of Inter BEE. He goes on to say, "because sound is not something that can be seen, being able to nurture countless images for the listener is attractive." Such nurtured images enrich the mind and the future seen by Mr. Hanzawa may be realized someday soon.

Mr. Erick Kish
Commercial Attaché,
US Embassy, Japan

Supporting US Corporations expanding online video use by providing a platform for international business and technology exchange

Since 2015, Inter BEE has been approved under the United States Department of Commerce International Trade Administration's "TRADE FAIR CERTIFICATION." The exhibition scale has expanded and it is looking to develop even further in the future. New international business and technological cooperation have been behind a variety of industry trends such as 4K/8K, HDR and IP transmission. Private industry and the governments of the U.S. and Japan are actively communicating on such issues, and the U.S. Commercial Service of the U.S. Embassy assumes the role of ensuring that this communication advances smoothly. The ICT industry unit of the U.S. Commercial Service is not only involved in the broadcasting and video industries, it also plays a leading role in the area of emerging industries such as artificial intelligence, big data and drones. We asked Erick Kish, the Commercial Attaché of the Digital Economy and ICT Team, about current video trends and a new phase in video triggered by emerging technology.

Mr. Jonathan M. Heimer
Commercial Counselor and Deputy Senior Commercial Officer
United States Embassy in Tokyo

Emergence of Internet video

At Inter BEE 2016, a special forum was held by the U.S. Commercial Service of the U.S. Embassy at the invited session on the first day of the exhibition (16th November). At this forum, speakers from Glimmerglass Networks who supply optical switching systems for video transmission, Audio Tech who handle products developed by Listen, Inc. including the "Sound-Check" audio measurement system, and Panasas who provide large capacity/high-speed storage took the rostrum to introduce their products and solutions. An invited session was also held on the final day of the exhibition (18th November), which started with an address by Mr. Jonathan M. Heimer, the Commercial Counselor and Deputy Senior Commercial Officer at the United States Embassy. Then representatives from Adobe Systems, who dominate the world market share of video production tools, Amazon, who are aiming to popularize VR, and Vuzix Corporation, who have realized a new form of communication by video transmission using smart glasses, each took the stage to introduce the technological capabilities of their companies who are creating new video business.
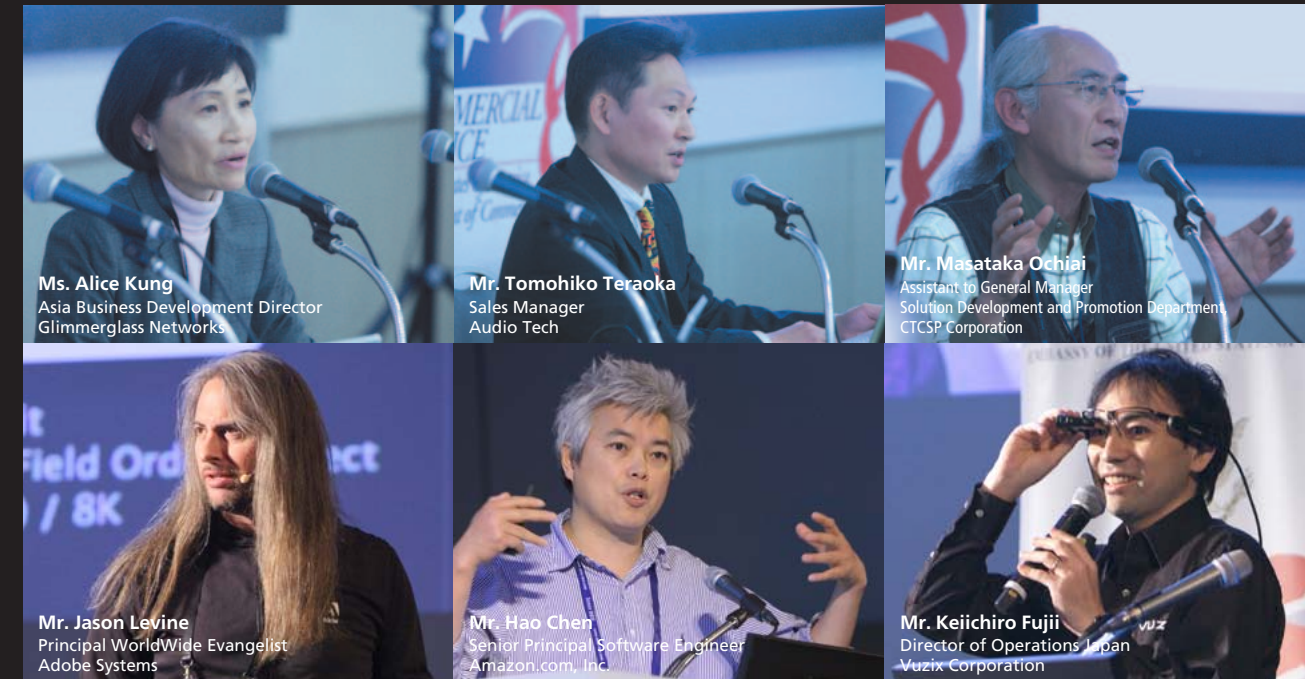
Ms. Alice Kung
Asia Business Development Director
Glimmerglass Networks

Mr. Tomohiko Teraoka
Sales Manager
Audio Tech

Mr. Masataka Ochiai
Assistant to General Manager
Solution Development and Promotion Department
CTCSP Corporation

Mr. Jason Levine
Principal WorldWide Evangelist
Adobe Systems

Mr. Hao Chen
Senior Principal Software Engineer
Amazon.com, Inc

Mr. Keiichiro Fujii
Director of Operations Japan
Vuzix Corporation

USA showcase goals

Mr. Kish evaluated Inter BEE 2016 as "being the largest and most fruitful to date". He goes on to say that "being accredited by the International Trade Administration TRADE FAIR CERTIFICATION last year has already made a difference with the number of overseas participants especially from the U.S. increasing. The ICT Industry Unit of the U.S. Commercial Service, U.S. Embassy is extremely proud to be able to support Inter BEE".

Mr. Kish also said that "Inter BEE could be called a platform to strengthen international cooperation in the broadcasting and video industries." To make use of Inter BEE as such a platform, the ICT Industry Unit of the U.S. Commercial Service introduced and supported several U.S. corporations at the 2016 exhibition including Glimmerglass Networks.

Video transmission heads towards an era of optical fiber

A company that provides optical fiber for online transmission, Glimmerglass Networks is one of those new corporations mentioned above. As needs for online video expand, technology is also evolving from 4K to 8K. With greater need for more and more data to be transmitted efficiently, hopes are placed on the improvement of transmission materials.

Ms. Alice Kung, the Asia Business Development Director of Glimmerglass Networks, talks about the company's products.

"Video is normally transmitted using a coaxial cable, but coaxial cables are extremely susceptible to attenuation, so the transmission length is limited. For example, the length is only 45 meters for 4K and 10 meters for 8K. When using optical fiber, 7000 meters can be transmitted by 4K, making it possible to build an environment ready for high definition video production at live show venues and sporting events as well as T.V. studios."

A record number of over 1,000 companies exhibited at Inter BEE
Inter BEE 2016: Professional audio,
video and communications exhibition
Technological innovation came alive toward Tokyo 2020

The latest technologies for the content industry in a new age came together under one roof

The Japan Electronics and Information Technology Industries Association (JEITA: Toshiaki Higashihara, Chairman / President and Chief Executive Officer of Hitachi, Ltd.) held Inter BEE 2016 – a professional exhibition of audio, video and communications – at Makuhari Messe over three days from November 16 (Wednesday) to 18 (Friday), 2016.

This year saw 1,090 companies/organizations participate in Inter BEE. This further exceeded the previous record set last year for the number of exhibitors (996 companies). A new record was also set for the number of booths with the 1,926 booths this year exceeding the 1,780 booths there were last year. One more hall at Makuhari Messe than last year was

also added to the venue. This meant that the event was held on an unprecedented scale this year. We invited key persons from the Commercial Affairs Department in the Embassy of the United States of America in Japan, International Association of Broadcasting Manufacturers (IABM), Brazilian Society of Television Engineering (SET) and Globo Group Enterprises in addition to our supporters in the Ministry of Internal Affairs and Communications, the Ministry of Economy, Trade and Industry, and the Association of Radio Industries and Businesses to attend the opening ceremony that we held on the first day. The cutting of the ribbon to commemorate the start of Inter BEE took place brilliantly.

Exhibition to create new business toward 2020

Mr. Keiichi Kawakami, Japan Electronics and Information Technology Industries Association, said the following as a greeting from the organizer at the beginning of the opening ceremony.

The Olympics and Paralympics held in Rio de Janeiro in Brazil also greatly excited those of us in Japan. We watched with excitement every day to see the strenuous efforts of the athletes via television broadcasting. It will finally be our turn when the Olympics and Paralympics are held in 2020. I would like Japan to offer technological innovation focused on 2020 and to show the world of the new media possibilities under our slogan of "What will you do next?" at Inter BEE this year.

Mr. Keiichi Kawakami
Executive Senior Vice President
Japan Electronics and Information Technology Industries Association

Mr. Mabito Yoshida
Deputy Director-General
Ministry of Internal Affairs and Communications

Backing of technology is essential in the promotion of policies and systems

Mr. Mabito Yoshida, Deputy Director-General of the Ministry of Internal Affairs and Communications, expressed the following when he stood up to give a greeting from the guests.

Inter BEE is held as an exhibition which brings together many technologies that attract the highest level of audio, video and communication professionals in Japan, as an opportunity for business trading and information exchange, and as an event which brings together the latest technologies together under one roof. In particular, looking at the exhibits and sessions this year, it is possible to see keywords highly related to the measures being promoted by the Ministry of Internal and Communications interspersed everywhere. These include 4K/8K, HDR, convergence of IT and broadcasting, simultaneous distribution on the Internet, and measurement of broadcast viewing.

The Ministry of Internal Affairs and Communications is also conducting various investigations and studies while aiming to promote these in terms of policies and systems. It is especially important that we support technology. In that sense, I am extremely interested in Inter BEE this year because it has brought together the technologies essential to the promotion of broadcasting and IT in Japan.

I hope that the accumulation of everyone's advanced technologies and experiences leading the world's broadcasting and communications will become a great driving force to building a new society to encourage overall economic growth without being limited to the expansion of the broadcasting and IT fields.

Mr. Yutaka Yoshimoto
Deputy Director-General, Commerce and Information Policy Bureau
Ministry of Economy, Trade and Industry

Catch a glimpse of the viewing environment four years in the future at Inter BEE

It became possible to receive terrestrial digital broadcasting in all prefectural government office locations on December 1, 2006. It will be the tenth anniversary this year of the enactment of the Digital Broadcasting Day on that day since then. New technologies have steadily appeared not limited to the conventional boundaries of broadcasting (e.g. 4K/8K and IP conversion) over the past 10 years. Furthermore, VR, AR and more have also appeared. This has made me realize that broadcasting will continue to change ever more in the future.

I am really looking forward to seeing in what forms it will be possible to watch the Olympics and Paralympics in four years. Perhaps television will have moved beyond the boundary of "being watched" and will have headed toward the sharing of experiences. No doubt even more new technologies will emerge.

I think it is very likely that the products and services we will see implemented in four years can be found now in the venue of Inter BEE that showcases the cutting edge and highest peak of technology. I am really looking forward to what I see here today to catch a glimpse of the things that consumers will be able to experience in four years like a time machine in that sense.

Cutting the ribbon with industry stakeholders from Japan and overseas
(From left on the cutting the ribbon podium)

Mr. Masataka Ohnishi
Chairman of Inter BEE 2016 Organizing Committee

Mr. Jose Manuel Fernandez Marino
Globo Group Enterprise

Mr. Peter Bruce
Director, IABM APAC

Mr. Yutaka Yoshimoto
Deputy Director-General, Commerce and Information Policy Bureau
Ministry of Economy, Trade and Industry

Mr. Mabito Yoshida
Deputy Director-General
Ministry of Internal Affairs and Communications

Mr. Erick Kish
Embassy of the United States of America in Japan

Mr. Olimpio Jose Franco
President, SET

Mr. Keiichi Kawakami
Executive Senior Vice President, JEITA

Inter BEE 2016 Reception
Overture to 2020
Toward new solutions with technological power

The "Inter BEE 2016 Reception" was held as the final program on the opening day of the exhibition (16th November). This stylish event was packed with representatives from organizations supporting and associated with Inter BEE, such as the Japan Broadcasting Corporation (NHK), commercial broadcasting stations, and exhibiting companies.

At the beginning of the reception, Mr. Masataka Ohnishi, Chairman of the Inter BEE 2016 Organizing Committee, took the stage to give the sponsors' greeting. Then Mr. Koki Morinaga, Executive Director and Chief of Engineering for Japan Broadcasting Corporation (NHK), and Mr. Fusaki Matsui, Senior Managing Director of the Association of Radio Industries and Business (ARIB), made a congratulatory speech. Mr. Tadahisa Kawaguchi, Chairman of Special Technical Committee of the Japan Commercial Broadcasters Association (JBA) then raised a toast to the ceremony.

"Realizing a world-class broadcasting service for 2020"

NHK started 4K/8K Super Hi-Vision test broadcasting on August 1st and this broadcasting will fully get underway in 2018. Expressing his enthusiasm, Chief Engineer of NHK, Mr. Koki Morinaga's opening comment was, "To spread the use of 4K/8K Super Hi-Vision, we have to work to coordinate software and hardware developments. NHK will strengthen content production work and activities that fully relay the attractiveness of 4K/8K to viewers." In addition, it is said that over 200,000 people were able to see 4K/8K broadcasts of the Rio Olympics and Paralympics at six public viewing venues in Tokyo and Osaka and NHK broadcasting stations all over Japan receiving this content. Mr. Morinaga stated that "such Olympic trials will be a big step toward achieving success at the 2020 Tokyo Olympics and Paralympics."

Amid an increasingly changing broadcasting environment, such as video distribution, NHK has responded to such changes. However, Mr. Morinaga said the most pressing issue to be faced in the future is "how we should develop services that link Internet services targeting individual smartphone and tablet PC users with broadcasts that instantaneously send information to viewers. That will be the key to developing future broadcasting services."

Mr. Koki Morinaga
Executive Director and Chief of Engineering, NHK

"Hopes for technology that have a synergistic effect on video distribution and broadcasting"

Mr. Matsui gave high praise to the number of exhibitors at Inter BEE 2016 exceeding 1,000, stressing "Broadcasting is believed to be a very wide-ranging field. This exhibition not only has a great impact on Japanese broadcasting promotion, but also economic promotion and development."

Looking back on his inspection of the exhibition venue, Mr. Matsui stated, "Although we have 4K/8K, HDR and IP, I wasn't able to see 3D stereoscopic vision, which underwent a major boom several years ago. You could say that the emergence of 4K/8K, which allows users to easily view high-definition images and images with a feeling of depth, has put a damper on 3D stereoscopic vision. Rather than a toss-up between both, I feel that we should examine how we can combine both to produce a synergistic effect." In addition, Mr. Matsui questioned the focus on video distribution, "surely it is down to whether we view by broadcast or radio waves or we choose

"Feeling that new technology such as 4K/8K and Internet distribution will progress rapidly"

Mr. Tadahisa Kawaguchi, Chairman of the Special Technical Committee of the Japan Commercial Broadcasters Association (JBA), commented about the "Technical Report Conference of Commercial Broadcasting" that the Japan Commercial Broadcasters Association hosts in combination with Inter BEE every year. He said, "Over the next three days, on the third floor of the Makuhari Messe International Conference Hall, we will be hosting an event that introduces the latest activities of commercial broadcasters. At this year's (2016) conference there was a greater than average 111 reports, and tomorrow on the 17th November, we are due to hold panel discussions on TV program leading-edge image technology such as CG."

He then declared his hopes for technology to progress toward 2020. He stated, "This year's (2016) Rio Olympics and Paralympics ended without incident. In anticipation of the Tokyo Olympics, I have a feeling that new technology such as the start of actual BS 4K/8K broadcasts and the distribution of Internet content will advance rapidly." Finally, he gave a toast saying "I hope that broadcasting organizations and broadcasting equipment and household appliance manufacturers join forces with people gathered here from associated industries, and do their utmost to drive broadcasting development. I raise a toast to the success of Inter BEE 2016, the development of JEITA and related industries, and to everyone's future success and good health."

Mr. Tadahisa Kawaguchi
Chairman of Special Technical Committee
Japan Commercial Broadcasters Association (JBA)

to broadcast on the Internet. Providing an environment where we can view in 3D or 2D has opened up a different path. Rather than thinking about which will survive, if we can skillfully fuse the Internet, radio waves and ground waves, there is a possibility of each developing together by producing a synergistic effect. I hope that Japan's leading-edge technology will create such a synergistic effect."

Mr. Fusaki Matsui
Senior Managing Director
Association of Radio Industries and Business (ARIB)

ITOCHU Cable Systems promoted
its comprehensive system integration capabilities with
a full product lineup exhibition from video to audio

ITOCHU Cable Systems Corporation has a 30-year history as a system integrator specializing in video and communication related fields. This company experienced a massive change in 2016. This is because the company underwent a business merger in October 2016 with Hoei Sangyo – a company with a history of more than 40 years of being involved in video and audio related system sales to broadcasting stations. Inter BEE 2016 was the first time the company exhibited at Inter BEE as the new ITOCHU Cable Systems after the firm's business merger.

This business merger has led to ITOCHU Cable Systems possessing a greater product lineup than ever before and has enabled system integration in a wide range of fields. We spoke to Mr. Shoji Watanabe, who serves as the General Manager of the Media Solution Division, and Mr. Takeya Shiga, who works in the Sales Support Group in the Technical Support Department of the Hoei Division, in this firm that is undergoing such changes about the highlights and aims of the company's exhibit at Inter BEE.

Mr. Takeya Shiga
Sales Support Group
Technical Support Department
Hoei Division
ITOCHU Cable Systems Corporation

Mr. Shoji Watanabe
General Manager,
Media Solution Division
ITOCHU Cable Systems Corporation

ITOCHU Cable Systems promoted the company's enhanced lineup due to the firm's business merger with Hoei Sangyo

■ Key phrase: "Total solutions"

Mr. Watanabe: We significantly enhanced our product lineup through the business merger between ITOCHU Cable Systems (ICS) and Hoei Sangyo in October 2016. The key phrase of the ITOCHU Cable Systems exhibit at Inter BEE this time was "total solutions." We wanted to emphasize our ability to perform system integration from video and audio editing to delivery with our products in fields that straddle visual, audio and networks.

Mr. Shiga: The Hoei Division that is carrying on the operations of the old Hoei Sangyo is involved in a wide range of product genres. For example, we handle equipment in the audio field in addition to the video field. Furthermore, we also have technology and expertise in terms of studio design and similar. Our aim was to inform people that the solutions which could be provided by ITOCHU Cable Systems had greatly expanded with the addition of these products.

■ Extensive exhibit – from integrated management systems to film scanners

Mr. Watanabe: We most wanted to emphasize our IMC integrated management system as a system integrator that provides total solutions. I don't think I saw any other firms with a system that can offer integrated management of everything from work to broadcasting equipment control in file-based program production. This system can offer complete control on a terminal in terms of what process is being operated and what facility is being used in work according to workflow from the request for program production to primary/secondary recording reservation that automatically assigns recording reservations according to the availability of equipment, the assignment of responsibility, management of the situation from the generation of material files to complete package files, automatic transcoding, and file delivery by FTP. This product has been supplied to a broadcasting satellite station after being customized based on the original product as an integrated management system for program production. IMC employs a modular design. Therefore, we combine it with this to suit the needs of the user and provide it as a generic product.

Mr. Watanabe: We exhibited Bit Note, which can be installed at low cost, as a file-based quality checker. In terms of quality checkers that offer standard compatibility and quality inspections, expensive software is offered that can do everything up to report creation with high performance. However, these have not been installed in production companies due to their cost. On the other hand, Bit Note is low cost and easy to install. Therefore it is possible to offer file conformity checks and quality control (e.g. for black tinge, freezing, silence and loudness). Moreover, this product has also impressed because it is possible to add a "paka-paka" function to analyze and evaluate video sequences for which there is a possibility of causing photosensitive epilepsy. We received many inquiries about this at Inter BEE. Visitors were able to recognize that this system has easy operability that can be operated in Japanese in a Web browser and also that it has good usability among the many English-language software versions.

Mr. Shiga: The Hoei Division exhibited a film scanner from LaserGraphics in the United States. There were few booths exhibiting film-compatible equipment even at the Inter BEE venue, so this attracted a lot of attention from visitors. This scanner comes with a function to be able to stably read even old films. It will be possible to leave many works in high quality to the next generation by taking advantage of film content that has a quantity of information equivalent to 8K in addition to creating lots of new content once again for 4K/8K.

Mr. Shiga: We also set up a booth in the Professional Audio Category in addition to our main booth in the Video Production/Broadcast Equipment Category at Inter BEE this time. We exhibited on a grand scale the DFC 3D digital console from AMS Neve in the United Kingdom that is handled by the Hoei Division. The DFC products of that firm are used as the standard systems in movie studios all over the world. DFC 3D is compatible with the Dolby Atmos 3D surround format and I think it was possible for visitors to confirm at the venue that it is possible to freely produce stereophonic sound.

■ Offering better solutions by listening to comments from customers

Mr. Watanabe: I feel that many customers we are targeting for proposals as a system integrator come to Inter BEE. I think that this is a meaningful exhibition for our company which has a stance of listening to comments from our customers to provide total solutions together with them.

I have the impression that the range of companies involved in business in the video and audio fields is expanding as the number of exhibitors at Inter BEE is increasing. I think that the exhibiting categories are also expanding greater than in the past. Our firm is also introducing products in these new categories (e.g. video delivery platforms) in addition to hardware and software. Furthermore, it is expected that IP conversion will further progress in the future. It is very important that both our firm and our customers undertake the next step at an early stage. To that end, it is necessary to have a viewpoint of things that anticipate the next step while obtaining accurate information at exhibitions like Inter BEE. We would like to be able to continue providing better solutions with a solid perspective in the future so that we can make full use of the enhancement to our lineup thanks to our business merger.

Providing the Latest Technology for
IP Transmission in the Future:
Customer Feedback Elevates the Completeness of Products

Otaritec Corporation put on an exhibit with a focus on the new mc² 56xc product of the mc² broadcast console from the German company LAWO that is handled by this form.

Otaritec was established in 1980 and mainly handles overseas brand audio equipment. The firm started as a sales company selling the tape recorders of its parent company Otari, Inc. Later, the firm added distinctive overseas brand products to its lineup and started selling these to Japanese broadcasters, recording studios and PA companies. Currently, the firm mainly handles the following brands: active monitor speakers from the Finnish company GENELEC, digital network/mixing consoles from the Germany company LAWO, intercom/real-time network systems from the German company RIEDEL and optical transmission systems from its parent company. Mr. Yoichi Sunada, General Manager of the Sales Department, told us the following. "I have handled GENELEC products for more than 30 years and LAWO and RIEDEL products for more than 10 years. Products are improved by feedback from customers. It is precisely because products are used for a long time that they mature over time. Incorporating feedback from customers leads to even better products. We provide products while associating with manufacturers over a long time under this concept." We spoke to Mr. Sunada about the features of the products his firm exhibited this time and his expectations in Inter BEE.

Mr. Yoichi Sunada
General Manager of the Sales Department
Otaritec Corporation

We want to focus our efforts on providing these technologies for IP transmission in the future.

■ Exhibit of Broadcast and Mixing Console Realized and Fine Tuned with Feedback from Japanese Users

We mainly exhibited the mc² 36 broadcast console and new mc² 56xc product from the German company LAWO and an intercom/optical transmission system from the German company RIEDEL that are handled by our firm. In particular, we especially focused on the broadcast console from the German company LAWO this time. The mc² 56xc is a product improved on from the mc² 56 that has already been installed in many sites in Japan. This is a compact console that was newly developed due to requests from users in Japan.

LAWO is a manufacturer that traditionally mainly manufactured audio mixing consoles. However, this company develops products to also transmit IP video signals at the same time together with audio. In addition, our lineup of IP transmission equipment has been enhanced with the provision of VSM control systems from VSM Control as control systems for video and audio in IP transmission as one of LAWO's brands. In addition, LAWO is participating in the Alliance for IP Media Solutions (AIMS) as a board member toward the further standardization of IP.

LAWO's remote production system was also adopted at the Rio Olympics in 2016. Looking at trends in NAB and IBC, we can see that production companies and broadcasters in Europe and the US are moving toward IP. This trend is also spreading to users in Japan. Accordingly, we want to focus on showcasing this IP technology to users in Japan. The VSM control system supports all the different control protocols of each company (e.g. SONY, Ikegami and overseas manufacturers). We provide this as an external control system that makes it possible to control switching and distribution with a VSM panel.

■ Providing New Applications Using IP Transmission Technology

We connected LAWO's broadcast audio mixing console and VSM control system with a network to exhibit an automation system in which the microphones automatically operate according to the position of the ball. This is a system in which the microphone platform and mixing console automatically operate according to the position of the ball based on the movement of the players in the soccer stadium. The position of the ball is estimated from the tracking data provided by the company that turns the movements of the players into data. We also held a demo as an application for a soccer field in the venue. This attracted a great deal of interest from the visitors. This system can be utilized in all settings as long as there is data on the movement of players such as in baseball, hockey and other sports. We are already providing this system to several broadcasters and we expect an increase in inquiries in the future.

Developing Products by Obtaining Feedback from Customers

■ We Also Want to Hear Opinions from Those Involved in Video

Inter BEE is an opportunity for broadcasters, PA companies, production firms, recording studios and other customers to come together. I think this is a very important opportunity because it is possible to listen to the raw opinions of a wide range of customers and feed these back to products. Nowadays, we also handle video equipment at this time when IP transmission functions including video are also being added as the move toward IP progresses in addition to audio. I would like to see various floor configurations that allow companies handling both video and audio to exhibit between the video production/broadcast equipment and professional audio equipment categories to create opportunities to be able to talk to those involved with video.

Exhibiting the latest sports production systems in anticipation of 2020

In anticipation of 2020, Photron Limited exhibited EVS' latest sports production system.

At this Inter BEE exhibition, the company exhibited the latest sports production systems including the latest "XT4K" sports production server that supports EVS's 4K, the "XFile3" digital archive station and the "IP Director" sports production management system.

Inter BEE provides a platform for Photron to relay their ideas and an opportunity to communicate with users. We spoke to Mr. Goh Miyazawa, the Senior Manager of the Sales & Marketing Group, Video Solution Business Unit about the latest trends and the products and services he wants to promote this year.

Mr. Goh Miyazawa
Senior Manager
Sales & Marketing Group
Video Solution Business Unit
Photron Limited

Developing as an asset management system for sports

■ Key exhibits at Inter BEE 2016

In anticipation of 2020, we exhibited and demonstrated the latest EVS 4K sports production system handled by that company at the "EVS Sport Stadium" corner.

The 4K products we exhibited were the 4K/HD live production server, "XT4K", which receives live 4K camera signals and enables 4K replays in real-time and 4K highlight productions, along with the digital archive station, "XFile3", which can extract 4K video recorded with XT4K as 4K files ("XAVC" format).

XFile3 can extract all camera images recorded by XT4K as files. This shortens the time it takes to transmit materials after relay and allows previously-unused camera images to be practically used for news or online distribution.

The sports production management system, "IPDirector", and the instant replay multi-angle preview system, "Xeebra", are used at large-scale sports events. "IP Director" is a set management system for sports that converts base band video images received by the EVS server to files and manages them. It attaches and registers metadata to video images taken from various venues at the Olympics and manages them centrally at a broadcasting center. Broadcasting organizations all over the world can uses these images by accessing the server and retrieving video image data by keyword search.

In the future, we want to spread workflows, where sports content is accessed and effectively utilized, to Japan ready for 2020.

"Xeebra" is a multi-angle replay system designed for video refereeing that assesses refereeing decisions. With this system, dedicated cameras do not have to be prepared and video judgments can be made using broadcasting cameras. Its dedicated control method equipped with a jog dial enables operations such as scene retrieval and instant review. It is a server-type system so it can be used remotely at places distant from the stadium.

Used as a studio recording system for drama and variety shows

We promoted our own product, the studio ingest solution, "STING", which targets drama and variety shows recorded at studios. This product was based on EVS' live production server, "XT Series", which has been used at sporting venues.

As the tapeless production environment continue to advance, VTR sales and support services are ending one after another. In addition, drama and variety show studio recordings are moving away from VTR-based recording. We proposed an EVS server-based ingest solution for such use, because it enables video recording for up to 12-channels via one server.

Opportunity for communicating with users

■ Visitors' reactions

Through a demonstration of our numerous new products, I feel that we were able to tell people about how we are working towards 2020 as well as relay our ideas. EVS products are strongly identified with video servers for relay purposes, but not so much with solutions that form the core file-based flows. By relaying our ideas through demonstrations using the actual equipment, we got feedback like: "with this system, we can migrate smoothly to a file-based flow". I really felt that this was a great opportunity to relay our ideas to customers.

■ Hopes for Inter BEE

Exhibitions are really meaningful because they allow exhibitors to provide information that cannot be conveyed simply on the web or in catalogs. Inter BEE is one of the largest exhibitions in Japan where exhibitors can introduce their latest products and ideas to a wider audience. It is an extremely valuable place because people working at the forefront of broadcasting and video can come into contact with the latest products and communicate with the people behind them. I have great hopes for Inter BEE in the future as a place to create communities and be utilized to full advantage by exhibitors and visitors alike.

Blackmagic Design exhibited its handheld URSA Mini product which also becomes a studio camera:
The firm comprehensively displayed its product lineup and set up an experience corner with demos to promote their high-quality and functionality with cost performance

Blackmagic Design emphasized its comprehensive nature that can support diverse needs by widely exhibiting digital film cameras, production switchers, broadcasting converters, video monitoring, audio monitoring and more.

This firm has persisted in its stance of seeking low prices and high-quality in its 4K-compatible products that are attracting increasing attention. The firm exhibited its Blackmagic URSA Mini series that is equipped with a new user interface and its Video Assist 4K with new functions added. Furthermore, the firm also set up a demo corner for its DaVinci Resolve and Fusion Studio so that visitors could experience the actual operability of these products.

This firm views Inter BEE, the largest event for the video industry in Japan, as an important business opportunity. The firm says that one of the major benefits of this event is that it is possible to come into contact with customers who would not normally approach them. We spoke to Mr. Haruyuki Ishii, Head of Sales in the Sales Department, about the overview of his firm's exhibition and the position of Inter BEE.

Mr. Haruyuki Ishii
Sales Department, Head of Sales
Blackmagic Design

Blackmagic exhibited its products that pursue low prices and high-quality with the firm's full product lineup

■ Supporting the blooming of true creativity

Blackmagic focuses on the development and provision of low-price and high-quality products to support the blooming of true creativity in our customers. This is our corporate philosophy. We aimed to promote our wide-ranging product lineup at this event.

One of our main exhibits was for our Blackmagic URSA Mini series. These are full HD-compatible handheld digital film cameras capable of shooting various videos (e.g. theater movies, television programs, commercials, music videos and documentaries). These are compact cameras. This makes them perfect for shooting independently or with a small crew.

We have mounted a high resolution 1920×1080 retractable touch screen, professional specification connectors (including 12G-SDI), a high-quality stereo microphone and more to these products. This has allowed us to achieve an unprecedented smooth feeling of use. For example, it is possible to change the white balance and shutter angle just by touching the icons on the screen. It is also possible to use this product as a studio camera by using the Blackmagic URSA Studio Viewfinder accessory.

In addition, our Teranex Mini series of compact converters support all SD, HD and Ultra HD formats up to 2160p60. These products can be used at live events and on the portable racks of outside broadcasting vans. The Teranex Mini-IP Video 12G in this series is a bi-directional converter that transmits SDI video over the Ethernet. This is compatible with encoding and decoding by IP transmissions.

Our Teranex AV converter that is equipped with an advanced HDMI/SDI process comes with HDMI/SDI input, HDMI/SDI loop through and HDMI/SDI output in addition to analog. This makes it possible to achieve HDMI-SDI conversion without adding an adapter or other conversion device. Conversion at a low latency of 67 ms is possible. This means it demonstrates its power at live concerts and events.

Inter BEE is an important event that leads to business discussions by broadly promoting brands and products

■ Product groups that respond to diverse needs

We divided our exhibit into corners for each category. We did this to showcase our product groups that respond to diverse needs up to the shooting, editing, conversion, switching and distribution of video. We set up a pseudo studio so that visitors could experience for themselves the functions and usability of our Blackmagic URSA Mini series. We also set up a demo corner to allow people to actually touch our DaVinci Resolve and Fusion Studio products.

■ Inter BEE is the only exhibition where it is possible to exhibit our full product lineup

Inter BEE is the largest event for the video industry in Japan and we are also focusing our efforts on this exhibition. There are no exhibitions other than Inter BEE that provide the opportunity to exhibit our full lineup of products. We consider this a great opportunity to allow many visitors to learn about our new products and products that we want to promote. There are many cases when this leads to business discussions and inquiries. This also leads to the increased recognition of our products and firm. In fact, we have started talks thanks to Inter BEE and this has led to our firm receiving orders from broadcasters and others.

Hopes for efforts to encourage visits by new visitors

■ Provision of experiences to visit, see and feel

We get the impression that visitors look at our exhibit comprehensively rather than just looking at specific products. It seems people want actual experiences of visiting, seeing and feeling. I feel that this event is regarded as an opportunity to gather information to learn about things that cannot be understood just by looking at catalog specs.

Inter BEE is a meaningful opportunity to come directly into contact with customers who there are ordinarily few chances to meet in our sales activities (e.g. production site and regional customers). It is always enjoyable to be able to hear "raw comments" from customers who we could not approach in sales in the past.

■ Hope for the opening up of new industries and customers

We hope that Inter BEE continues its efforts to attract more and more customers as always. In addition to this, we hope to see new efforts. Why doesn't Inter BEE look to open up new industries and customers in addition to the video industry?

For example, one move would be to make it easy for freelance photographers, students looking to enter the video industry and consumers seeking high-end equipment to participate in this event. I believe devising events and presentation techniques so that those other than industry professionals wish to come to Inter BEE will expand the extent of the whole event.

Hall 8

Hall 7

Video Production / Broadcast Equipment

Hall 8 | Hall 7 | Hall 6 | Hall 5 | Hall 4 | Hall 3 | Hall 2 | Hall 1

International Conference Hall

Event Hall

- 🛈 Information
- Resting Place
- 📱 Mobile Charging
- 🍴 Food Stand
- ☕ Coffee Place
- 🚻 Rest Room
- ELV Elevator

8216 Blackmagic Design

8506 KYOSHIN COMMUNICATIONS

7306 Canon/ Canon Marketing Japan

7216 IKEGAMI TSUSHINKI

8505 TOTSU INTERNATIONAL/ TOTSU CREATIVE VISION

8319 Vitec Videocom

8215 SANSHIN ELECTRONICS

7417 Carl Zeiss | 7416 Nac Image Technology

7305 AJA Video

7215 Hitachi | 7214 Hitachi Kokusai Electric

3D CONSORTIUM

LINDY Sales

Japan Association of Video Communications

8409 Manfrotto Distribution | 8316 Synergy/ AKiTiO USA | 8317 Morisawa / 8318

8109 AD TECHNO

7507 Media Partner

7415 ZhiYun-Tech | 7304 FUJIFILM

7212 ASK/ DSTORM | 7213 BlueBee / 7211 Lancer Link

7 Hall 6

8504 MITOMO

8110

7414 | 7412

8503 Japan Material/ Matrox Electronic Systems/ Visual Research/ BROAD-DESIGN

8408 MUSASHI OPTICAL SYSTEM | 8407 BIOS | 8315 Grass Valley | 8213 Frontier Factory | 8212 Datapath

8107 NAB SHOW

7413 Oracle | PFU

7209 KEISOKU GIKEN | 7210 | 7101 Crescent

7208 Newtech | 7207 | Harmonic Japan

OA LABORATORY HGST Japan/G-Technology

Tokyo Eelctron Device/inrevium/Fidus Systems

Embassy of the United States of America/ACCJ/PANASAS American State Office Association

8406 DOLBY LABORATORIES | 8312 | 8313 AIMS JAPAN | 8314 | 8311

8121 Vuzix | 8120 | 7506 AZLAB | 7303/7307 Amazon Web Services Japan/ Elemental Technologies

7205 | 7206 DYNAMIC DRIVE POOL

7204 | 7203 Zaxel

JEITA Tape Storage Technical Committee

8502 Adobe Systems/ Intel

8210 Thirdwave Diginnos

8119 | 8118 Audio Tech | 8117

7411 Fuji Television Network

7202 RAID

7 Hall 6

CHIEF/Audio Visual Communications

ERG VENTURES

GLIMMERGLASS NETWORKS

Technology Joint/ Spin Digital Video Technologies

WOWOW Entertainment

Guntermann & Drunck
Dalet Digital Media Systems

8405 Explorer/ PALTEK | 8309 NIMBUS/ HYTEC INTER | 8310 | 8208 Media Partner | 8209

8112 | 8115 IABM

8113 | 8116

7410 IMD

7302 Microsoft Japan

INTER BEE CONNECTED

7102 TV Asahi
7103 Fuji Television Network
7104 Nippon Television Network
7105 HAROiD
7106 MAYA SYSTEM
7107 NHK
7108 Multiscreen Broadcasting Study Group
7109 Hewlett-Packard Japan
7112 ITOCHU Cable Systems
7113 EVC
7114 Newphoria

Cinegy

8114 OOYALA | 8111

8207

7409 | 7408 Hokuwa

8404 Communications Network | 8403 Intel | 8308 Nekojarashi | 8206 Accenture Japan

INTER BEE CREATIVE

8601 L'espace Vision
8602 EXA International
8603 Japan Post Production
8604 OMNIBUS JAPAN
8605 Panasonic Visuals
8606 Q-TEC
8607 NTV Technical Resources

Fiber 26 Network Advanced Media

IHSE Asia/Itochu Cable Systems

IT Access

8402 | 8303 Flash back Japan | 8304 UNIADEX

8401 | 8305 CCBN | 8205

DX Antenna | 8302 Gnzo | IBC

8301 Plat-Ease/ Executive Committee of Tokushima 4K Forum | 8202 MEDIA CAST | 8201 HKTDC / 8217 KOBA

7503 UNIXON SYSTEMS/ YOSHIDUMI Information

7405 Indy zone | 7406 FUJIMIC

7301 FAIRWAY

7502 SkillUp Video Technologies | 7501 IPTV Forum Japan

7407 Media Partner

7401 ITOCHU Techno-Solutions

8102 | 8101 Macro Image Technology

7402 Red Hat

TechnoMathematical

7403 Spectee

Japan Business Systems

8003 MEDIAEDGE

7004 DATABROAD | 7002 Cisco Systems

8002 PD System

7003 MetaMoJi | 7001 CTCSP/Aspera/Panasas

ICT / Cross-Media

ELV

1 F

Hall 6   **Hall 5**   **Hall 4**

Hall 8	Hall 7	Hall 6	Hall 5	Hall 4	Hall 3	Hall 2	Hall 1

International Conference Hall   Event Hall

Video Production / Broadcast Equipment

ROKE-BENTO Grand prix

Video Expression / Professional Lighting

6515 FOR-A

6213 Panasonic/ Panasonic System Networks

5416 ITOCHU Cable Systems

5217 NEC

4406 Sony/ Sony Business Solutions

4212 Toshiba

6514 IDX
6513 VIDEO Service
6512
Zhengzhou KEMA Movie-TV Opto-Electronics

6315 IMAGENICS/ VIDEOTRON

6212 IDK

5515 AT Communications

5415 HEIWA SEIKI KOGYO

Fuji Light Commercial Trading

5216 DJI Japan

4609 Media Garden/ KOTO ELECTRIC/ KOKUSAI SHOMEI

4405 Photron

4211 Toshiba Lighting& Technology/ Toshiba Lighting& Technology Engineering
4210 Chainzone Technology (Foshan)

6511 Artiza Networks
6510 Sakura Eiki
6411 Sunmulon 6412 ATV
6410
6314 FUYOH VIDEO INDUSTRY
6313 6312 Feiyu Tech
Extron Electronics, Japan
ASANUMA & CO., LTD.

6210 6211
LUMICA K-WILL
6209 ISHIKAWA TRUNK

6110 UNITEX
6109 NextoDI 6108 Technical Farm
TACHII ELECTRIC WIRE

SUGAWA VIDEO ENGINEERING

5613 5614
RIKEI
5612 WASEI
SHOOTEC-JAPAN/ALADDIN

5514 YUASA
5513 5512 INTER-TEC
GoMax Electronics

Vocas Japan/Kacchie
5413 5414 MICROCOM
5412 5410
5411 PACO ELECTRONICS INDUSTRY MUSASHI

4711 Nippon Steel & Sumikin Welding
4713 Kansai Broadcasting Equipment Exhibition
4715 Full score

5310 Kenko Professional Imaging/ Kenko Tokina/ SLIK

5214 5215
Cross Imaging
5213
PROMISE Technology
5115 MEDIA GLOBAL LINKS
4716 JUNS
4714 TID
4712 MUSASHI SI/ FINDOUT

4608 JVC KENWOOD
4511 Rohde & Schwarz
4404 ASACA

IBM Japan 4510 4508 QUANTUM STORAGE JAPAN
4509

DUPLEX
5114 CRI 5113 Onlystyle
Middleware
4709 Japan CableCast
4607 Tektronix
4710 ALMEDIO/ Mitsubishi Kagaku Media
Internet Initiative Japan

PROKIZAI.COM
4306 4307
4305 SUNTECH
Japanese Association of Lighting Engineers & Designers
4209
4207 ENWA
JAPANESE SOCIETY OF LIGHTING DIRECTORS

4304 CreateLED Japan
4206 WONDER VISION TECHNO LABORATORY

SHENZHEN JINHUA OPTO-TECH
State of the Art Technologies Expression Association
4205

6509 NTT Group
6508 VILLAGE island

6408 6409 ARGO
6407 Japan Weather Association
6310 6311 Doramu ROTOLIGHT
6309 MOUBIC
6208 EMC Japan
6207

Mitsui Bussan Aerospace

5609 5610
Gudsen
5608 Kowa Optical Products

5510 5511
Velbon
5509 BLACK BOX NETWORK SERVICES
5508

5408 5409 CALLA Teleforce
5407 CamCast7

VICTORIES

Research Institute of Systems Planning

5309 5307 P-tec TAKE/ TOV JAPAN/ KONOVA
5308 GANSUI

5210 5211
STAR COMMUNI-CATIONS
5209 NOBUO Electronics
SEIKO SOLUTIONS

5111 5112 ASCOT EIDEN
5109 5108 iStarUSA Group/ Century

4507 MILERUNTECH
4506 EIZO/ BOXX Technologies

4403 LEADER ELECTRONICS

4302 4303 Agai Trading
4301 SHENZHEN GLOSHINE TECHNOLOGY

6507 NIXUS Hokkaido Nikko Telecommunications

WALLONIA EXPORT-INVESTMENT AGENCY
Miharu Communications

NICCABI/ Plannet

Servants International/ Mellanox Technologies Japan

KANSAI TSUSHIN DENSEN

Sanwa Cine Equipment Rental/ Sanwa Pro Light
Digital Processing Systems Japan/ TECHNONET

KOMINE MUSENDENKI

6506 NHK Integrated Technology
6505 GIN-ICHI

6405 6406
6307 6308 ONTEC
6206 MEIKO TECH
6305 HYPER TOOLS
6107 SETTSU METAL INDUSTRIAL
5606 5607 Too
5506 5507 NKK SWITCHES
5504
5405 5406 RIP-TIE CANVASs
5404

5306 KATO ELECTRIC INDUSTRY
5207 5208 KYOEI SHOJI
5206
Japan Communication Equipment
5205 AIM Electronics
5106 5107 MARUMI OPTICAL
4707 4708
4706 Dyna Comware
4606 IDEAL SYSTEMS JAPAN
4505 Tokyo Broadcasting System Television
4402 NGC

NIHON FORM SERVICE
6404 Attain
6106 6105
6205 6204 JOUER
5605
Canare Electric
5505 CAME-TV
InnoQos
Lambda Systems

ANRITSU
5105 Yokogawa Digital Computer
4705
4704 Digio
4605

4504 Nippon Control System

Sumitomo Electric Industries
6503 TANAKA DENKI 6504
6502 Traffic Sim

DEMPA PUBLICATIONS
KOPEK JAPAN
INNOTECH/QNAP
Sevenoak/Boya
Shenzhen Justek Technology
I.S.X./OptoMedia Technology
WELL BUYING INDUSTRIAL
Raritan Japan

Matsuura Kikai Seisakusho
Postium Korea

5305 5304 SEIKOH GIKEN THREEM
5203
4703 MetaData
4702 OINU VISION
4701 MICROBOARDS TECHNOLOGY

6402 6403
6303 6304 ARMOR
6203 DIGIcas
6103 6104
HIRO TECH
Network Electronics Japan
5603 5604 SHANPU
5502 5503 SET ARIB
5403 5401
5402
Japan Radio

6401 Nikon Systems
6302 HIRAKAWA HEWTECH
6301
6201
6101 CRYSTAL VIDEO TECHNOLOGY
6102
5501 Semtech Japan
5602
Cyber netech

Broadcast Supply International/WAKIYA-GIKEN
MOTION PICTURE AND TELEVISION ENGINEERING SOCIETY OF JAPAN
AIRBUS HELICOPTERS JAPAN
The Institute of Image Information and Television Engineers

5302 5303 EMIC
5301 LSI JAPAN
5202 IBEX Technology
5201
5104
5101 Nippon Antenna
5102 KISSEI COMTEC
BAY Technologies
4602 4601 Capella Systems ROCKET
4603 Carina System
4503
4501 Seika Digital Image
4401 Fujitsu

MIC Associates
enRouteM's
Prolyte Doughty Japan

6501 Soliton Systems

6001 METAL TOYS

5002 PROSPER ELECTRONICS
5001 TAKIGEN MFG

5003 ALVIX

INTER BEE IGNITION
4101 M.SOFT
4102 MOTIONELEMENTS
4103 AIS Lumiere Japan Awards Winning Works 2016
4104 Yoshihito Nakanishi & Touchence
4105 YUKAI Engineering (11/16-17)
4105 24Stream (11/18)
4106 J.TESORI
4107 Premium ARTS
4108 Think Design
4109 CREEK & RIVER
4110 Cine Focus
4111 NHK
4112 NHK
4113 Kid's Plates
4114 Advanced Imaging Society, Japan Committee
4115 Jolly Good
4116 Digital Signage Consortium

7 Hall 6   7 Hall 6   4 Hall 3   4 Hall 3

1F

ELV

Hall 3 **Hall 2**

| Hall 8 | Hall 7 | Hall 6 | Hall 5 | Hall 4 | Hall 3 | Hall 2 | Hall 1 |

International Conference Hall
Event Hall

Video Production / Broadcast Equipment

Information
Resting Place
Mobile Charging
Food Stand
Rest Room
ELV Elevator

3506 ASTRODESIGN
3219 ATOMOS
3118 Hibino/ hibino chromatek Div./ Studer Japan Broadcast/ Hibino Besco/ ELECTORI
2208 Hibino/ hibino pro audio sales Div./ hibino intersound
2114 YAMAHA MUSIC JAPAN

Nihon Onkyo Engineering/ELECTORI

3505 Snell Advanced Media
3314 Avid Technology
3218 Media Integration/ ROCK ON PRO
3117 MATSUDA TRADING
2415
2207 Shure Japan
2113 TAMURA

Professional Audio Equipment

4 Hall 3

3504 SIGMA
3408 Laguna Hills/ DATATON
3313 3311 RF DESIGN/ THAMWAY
3407
3312
3214 3215 TAC SYSTEM
TAC SYSTEM
3116 Pioneer DJ
CRYPTON FUTURE MEDIA
STAGE SOUND ASSOCIATION of JAPAN
2513 2514 Shizuka PULSE
2512 2515
TACHII ELECTRIC WIRE
2321 2322 MIX WAVE DSP Japan
2320 2318
2413 TEAC
2206 S.C. ALLIANCE/ ATL
2112 Panasonic/ Panasonic System Networks

3608 Memory-Tech
Media Partner
Media Partner
3213 Rewire
3115 3114 Fraunhofer IIS Techno House
CORNES Technologies
2510 Association of 700MHz Frequency Promotion
2511 Yamaki Electric
2412 2414
2411
2319 SANKEN MICRO PHONE
2320 2318 SUN PHONIX
2111 OTARITEC

3605 Font works
3503 TechnoHouse
3406 3405 M&I Network/ Datavideo Japan ATEN JAPAN
3310 3308 Socionext
3211 3212 ACOUSTIC FIELD
3112 3113
NTI Japan
3310 Roland
3210 Continental Far East
3109 TANIZAWA SEISAKUSHO
3110
Dream
HANAOKA MUSEN DENKI
Suyama Dental Laboratory
Laguna Hills/AuviTran
APPLAUSE SYSTEMS/Catch Me
Eco Trust Japan
2409 2410 Takasago
2408
Audio-Technica
2315 2316
Neutrik
2317 CAEL WORKS
2314 2313 digicom Dan Dugan Sound Design
2205 ONKYO TOKKI
2110 Bestec Audio/ Beetech

INTER BEE EXPERIENCE
𝒳-Headphone 🎧
Headphone Trial Listening Experience Exhibition
2608 Shure Japan
2609 Hibino
2610 YAMAHA MUSIC JAPAN
2611 Sennheiser Japan
2612 ULTRASONE
2613 Roland
2614 Miyaji Import Division
2615 TEAC
2616 Audio-Technica
2617 OPPO Digital Japan/emilai

3309 ZyCast Technology
Gibson Guitar Japan
2310 TOKYO KO-ON DENPA
2309 Digital Laboratory
2307 Ronk Japan
2311 SOUTHERN ACOUSTICS
2312 M and N
2108 2109 MI Seven Japan ResoNetz Airfolc
2107 2106 Synthax Japan BI·force

𝒳-Microphone 🎤
Microphone Trial Listening Experience Exhibition
2601 Tech Trust Japan
2602 UETAX
2603 Audio-Technica
2604 Roland
2605 Sennheiser Japan
2606 AUDIO BRAINS
2607 Hibino

3604 Kaga Solution Network
3502 Cosmic Engineering
3403 3404 NEP TOMOCA Electronics
3306
3208 3209 MEDIA PLUS
3207 MIT
3206
3108 3106 GROOVE Bosch Security Systems
3107 AZDEN
2508 2509 EXCEL Fourbit
2506 inMusic Japan
2308 ACO
2204
BOSE
2104 2105 ICONIC Tech Trust Japan
2103 Crescent

BELDEN/ TOMOCA Electronics
NIHON ELECTRO HARMONIX
OKADA International
AMPHENOL AUDIO
Acoustic Technical Laboratory
MICRONIC SYSTEM
Penn Fabrication Japan
2406 2405 HEDD-Japan UETAX
2306 Volt Ampere
MTS&PLANNING
2305 MARUYASU-SEIKI
SOLUTION LABO R
3603 HOSOGIKEN
3601 YOSHIMI CAMERA

3501 Shotoku/ RENT ACT SHOTOKU
3401 ACEBIL JAPAN/ NIPPON VIDEO SYSTEM
3302 Doteck
3301 ACEBIL JAPAN/ NKL/ Backstage Equipment/ Grip Factory Munich
3204 3205 STUDIO EQUIPMENT
3203 3201 Comodo Mattina
3202
3103 3104 LUMINEX MORSON JAPAN
3102 Comodo Mattina
3101 MIURA
2504 2505 ZOOM EASTERN Sound Factory
2503 Saramonic
2502 2501 ITOCHU Cable Systems Aiuto
2402 2403 KOTOBUKI
2401 MIYAJI MUSIC
2304 2301
2302 MARTIN AUDIO JAPAN
LIVEGEAR
2202 2201 Solid State Logic Japan
2203
2102 d&b audiotechnik Japan

ANTELOPE AUDIO

2101 Sennheiser Japan

3002 TOA
3001 Sigma Systems Engineering
2001 AUDIO BRAINS

1F

Professional Audio — Hall 2-3

2308 ACO CO., LTD.
3212 ACOUSTIC FIELD INC.
3206 Acoustic Technical Laboratory
2501 Aiuto Co., Ltd.
3203 AMPHENOL AUDIO
2202 ANTELOPE AUDIO
2411 APPLAUSE SYSTEMS. Co.
2510 Association of 700MHz Frequency Promotion
2206 ATL CO., LTD.
2001 AUDIO BRAINS Co., ltd.
2408 Audio-Technica Corporation
2414 AuviTran
3107 AZDEN CORPORATION
2110 Beetech Inc.
2110 Bestec Audio Inc.
2106 BI-force Incorporated
3106 Bosch Security Systems LTD.
2204 BOSE K.K.
2317 CAEL WORKS INC.
2411 Catch Me, Inc.
3102 ComodoMattina, Inc.
3201 ComodoMattina, Inc.
3210 Continental Far East Inc.
2512 CORNES Technologies Ltd.
2103 Crescent Co., Ltd.
3215 CRYPTON FUTURE MEDIA, INC.
2102 d&b audiotechnik Japan
2313 Dan Dugan Sound Design, Inc.
2314 digicom Ltd.
2309 Digital Laboratory Inc.
3113 Dream Inc.
2322 DSP Japan Ltd.
2505 EASTERN Sound Factory CO.,LTD.
2316 Eco Trust Japan Co., Ltd.
2415 ELECTORI CO., LTD.
2508 EXCEL INC.
2509 Fourbit Corporation
3115 Fraunhofer IIS
3110 Gibson Guitar Corp. Japan
3108 GROOVE CO.,LTD.
2412 HANAOKA MUSEN DENKI CO., LTD.
2406 HEDD-Japan
2208 hibino pro audio sales Div., Hibino corporation
2208 hibino intersound corporation
2105 ICONIC
2506 inMusic Japan K.K.
2502 ITOCHU Cable Systems Corporation
2403 KOTOBUKI Co.,LTD.
2414 Laguna Hills, Inc.
2301 LIVEGEAR Inc.
3103 LUMINEX
2312 M and N Co.,Ltd.
2302 MARTIN AUDIO JAPAN Inc.
2305 MARUYASU-SEIKI Co.Ltd.
3117 MATSUDA TRADING CO., LTD.
3218 Media Integration, Inc./ROCK ON PRO
3207 MEDIA PLUS CO., LTD.
2108 MI Seven Japan Inc.
3205 MICRONIC SYSTEM Co.,Ltd.
3209 MIT INC.
3101 MIURA CORPORATION
2321 MIXWAVE INC.
2401 MIYAJI MUSIC INC.
3104 MORSON JAPAN CO., LTD.
2304 MTS&PLANNING Co., Ltd.
2315 Neutrik Limited
3208 NIHON ELECTRO HARMONIX K.K.
2415 Nihon Onkyo Engineering Co., Ltd.
3112 NTI Japan Limited
3204 OKADA International Inc.
2205 ONKYO TOKKI LTD.
2111 OTARITEC Corporation
2112 Panasonic Corporation
2112 Panasonic System Networks Co., Ltd.
2402 Penn Fabrication Japan INC.
3116 Pioneer DJ Corporation
2514 PULSE Co., Ltd.
2109 ResoNetz Airfolc, Inc.
3213 Rewire Inc.
3211 Roland Corporation
2307 Ronk Japan Corporation
2206 S.C.ALLIANCE INC.
2319 SANKEN MICROPHONE CO., LTD.
2503 Saramonic
2101 Sennheiser Japan K.K.
2513 Shizuka Inc.
2207 Shure Japan
3001 Sigma Systems Engineering Co., Ltd.
2201 Solid State Logic Japan K.K.
2203 SOLUTION LABO R
2311 SOUTHERN ACOUSTICS Co., Ltd.
2515 STAGE SOUND ASSOCIATION of JAPAN
3202 STUDIO EQUIPMENT CORPORATION
2318 SUNPHONIX
2410 Suyama Dental Laboratory Co., Ltd.
2107 Synthax Japan Inc.
3214 TAC SYSTEM, INC.
2320 TACHII ELECTRIC WIRE CO., LTD.
2409 Takasago LTD.
2113 TAMURA CORPORATION
3109 TANIZAWA SEISAKUSHO, LTD.
2413 TEAC CORPORATION
2104 Tech Trust Japan Co., LTD.
3114 Techno House Inc.
3002 TOA Corporation
2310 TOKYO KO-ON DENPA CO., LTD.
2405 UETAX Corporation
2306 Volt Ampere Inc.
2114 YAMAHA MUSIC JAPAN CO., LTD.
2511 Yamaki Electric Corporation
2504 ZOOM CORPORATION

X-Microphone

2606 AUDIO BRAINS Co., ltd.
2603 Audio-Technica Corporation
2607 Hibino corporation
2604 Roland Corporation
2605 Sennheiser Japan K.K.
2601 Tech Trust Japan Co., LTD.
2602 UETAX Corporation

X-Headphone

2616 Audio-Technica Corporation
2617 emilai inc.
2609 Hibino corporation
2614 Miyaji Import Division
2617 OPPO Digital Japan Ltd.
2613 Roland Corporation
2611 Sennheiser Japan K.K.
2608 Shure Japan
2615 TEAC CORPORATION
2612 ULTRASONE
2610 YAMAHA MUSIC JAPAN CO., LTD.

Video Production / Broadcast — Hall 3-8

3301 ACEBIL JAPAN CO., LTD.
3401 ACEBIL JAPAN CO., LTD.
8109 ADTECHNO Inc.
5205 AIM Electronics Co., Ltd.
8313 AIMS Japan
5602 AIRBUS HELICOPTERS JAPAN CO., LTD.
7305 AJA Video
8316 AKiTiO USA
5610 ALADDIN CO., LTD.
4710 ALMEDIO INC.
5003 ALVIX Corporation
7303 Amazon Web Services Japan K.K.
5106 ANRITSU CORPORATION
6409 ARGO CORPORATION
6304 ARMOR CORPORATION
6511 Artiza Networks, Inc.
4404 ASACA CORPORATION
6313 ASANUMA & CO., LTD.
5111 ASCOT Co.,LTD.
7212 ASK Corporation
5503 Association of Radio Industries and Businesses (ARIB)
3506 ASTRODESIGN, Inc.
5515 AT Communications K.K.
3405 ATEN JAPAN CO., LTD.
3219 Atomos Co., Ltd.
6404 Attain Corporation
6412 ATV Corporation
3314 Avid Technology K.K.
7506 AZLAB, Inc.
3301 Backstage Equipment, Inc.
5201 BAY Technologies, Inc.
3306 BELDEN Singapore Pte. Ltd.
8407 BIOS CORPORATION
5509 BLACK BOX NETWORK SERVICES
8216 Blackmagic Design Pty. Ltd.
7213 BlueBee Inc.
4506 BOXX Technologies
6301 Broadcast Supply International Co., Ltd.
8503 BROAD-DESIGN Co., Ltd.
5408 CALLA Co., Ltd.
5407 CamCast7 Inc.
5505 CAME-TV LIMITED
5605 Canare Electric Co., Ltd.
7306 Canon Inc. / Canon Marketing Japan Inc.
5406 CANVASs Co.,ltd.
4602 Capella Systems,LLC
4603 Carina System Co., Ltd.
7417 Carl Zeiss Co., Ltd.
5108 Century Corporation
8312 CHIEF/Audio Visual Communications Ltd.
3502 Cosmic Engineering Inc.
7210 Crescent, inc.
5114 CRI Middleware Co., Ltd.
5214 CrossImaging
6101 CRYSTAL VIDEO TECHNOLOGY CO., LTD.
5402 Cybernetech Corporation
3408 DATATON
3406 Datavideo Japan Co., Ltd.
6402 DEMPA PUBLICATIONS, INC.
6203 DIGIcas LLC
4704 Digio Corp.
5216 DJI Japan
8406 DOLBY LABORATORIES, INC.
6310 Doramu Co.,Ltd.
3302 Doteck
7212 D-Storm, Inc.
5213 DUPLEX CO., LTD.
4706 DynaComware Corporation
7206 DYNAMIC DRIVE POOL
5112 EIDEN Co., LTD.
4506 EIZO Corporation
3118 ELECTORI CO., LTD.
7307 Elemental Technologies
6208 EMC Japan K.K.
5302 EMIC CO.,LTD.
4503 enRouteM's Co.,LTD.
6106 Entaniya Co.,Ltd.
8311 ERG VENTURES.CO.,LTD.
6410 Extron Electronics, Japan
6312 Feiyu Tech Co., Ltd.
8314 Fidus Systems Inc.
4712 FINDOUT CORP.
3605 Fontworks Inc.
6515 FOR-A COMPANY LIMITED
8213 Frontier Factory, Inc.
5412 Fuji Light Commercial Trading Co., Ltd.
7304 FUJIFILM Corporation
4401 Fujitsu Limited
4715 Full score Co., Ltd.
6314 FUYOH VIDEO INDUSTRY CO., LTD.
5308 GANSUI OPTICAL SYSTEM CO., LTD.
6505 GIN-ICHI Corp.
5513 GoMax Electronics, INC.
8315 Grass Valley K.K.
3301 Grip Factory Munich
5510 Gudsen
7101 Harmonic Japan GK
5415 HEIWA SEIKI KOGYO CO., LTD.
7205 HGST Japan, LTD./G-Technology
3118 Hibino Besco Corporation
3118 hibino chromatek Div., Hibino corporation
6302 HIRAKAWA HEWTECH CORP.
6103 HIROTECH, INC.
7214 Hitachi Kokusai Electric Inc.
7215 Hitachi, Ltd.
5416 HOEI SANGYO (ITOCHU Cable Systems Corporation)
3603 HOSOGIKEN
6305 HYPERTOOLS CO., LTD.
6105 I.S.X. CORPORATION
5202 IBEX Technology Co., Ltd.
4510 IBM Japan,Ltd.
4606 IDEAL SYSTEMS JAPAN CO., LTD.
6212 IDK Corporation
6514 IDX Company, Ltd.
7216 IKEGAMI TSUSHINKI CO., LTD.
6315 IMAGENICS
5504 InnoQos Corporation
6303 INNOTECH CORPORATION
4509 Internet Initiative Japan Inc.
5512 INTER-TEC Co., Ltd.
6209 ISHIKAWA TRUNK Co., Ltd.
5108 iStarUSA® Group
5416 ITOCHU Cable Systems Corporation (HOEI SANGYO)
7414 Japan Association of Video Communications
5206 Japan Communication Equipment Co., Ltd.
8503 Japan Material Co.,Ltd.
5401 Japan Radio Co., Ltd.
6407 Japan Weather Association
4709 JapanCableCast Inc.
7204 JEITA Tape Storage Technical Committee
　　　FUJIFILM Corporation
　　　FUJITSU LIMITED
　　　Hitachi Information & Telecommunication Engineering, Ltd.
　　　IBM Japan, Ltd.
　　　NEC Corporation
　　　Sony Storage Media and Devices Corporation
　　　TANDBERG DATA JAPAN INC.
　　　UNITEX Corporation
6106 JOUER LIMITED
4716 JUNS inc.
4608 JVCKENWOOD Corporation
5413 Kacchie LLC
3604 KAGA Solution Network Co., Ltd.
4713 Kansai Broadcasting Equipment Exhibition
5507 KANSAI TSUSHIN DENSEN CO., LTD.
5306 KATO ELECTRIC INDUSTRY Co., LTD.
7209 KEISOKU GIKEN Co., Ltd.
5310 Kenko Professional Imaging Co., Ltd.
5310 Kenko Tokina Co., Ltd.
5102 KISSEI COMTEC CO.,LTD.
4609 KOKUSAI SHOMEI Co.,LTD.
5207 KOMINE MUSEN DENKI Co., Ltd.
5307 KONOVA
6403 KOPEK JAPAN CORP.
4609 KOTO ELECTRIC CO., LTD.
5608 Kowa Optical Products Co., Ltd.
6211 K-WILL Corporation
5208 KYOEI SHOJI CO., LTD.
8506 KYOSHIN COMMUNICATIONS CO., Ltd.
3408 Laguna Hills, Inc.
5404 Lambda Systems Inc.
7211 Lancer Link Co., Ltd.
4403 LEADER ELECTRONICS CORP.
8110 LINDY Sales Inc.
5301 LSI JAPAN CO., LTD.
6210 LUMICA CORPORATION
3406 M&I Network Inc.
8409 Manfrotto Distribution K,K.
4707 MARUMI OPTICAL CO., LTD.
8503 Matrox Electronic Systems Ltd.
5303 Matsuura Kikai Seisakusho Co., Ltd.
4609 Media Garden Inc.
5115 MEDIA GLOBAL LINKS CO., LTD.
6206 MEIKO TECH CO., LTD.
3608 Memory-Tech Corporation
4703 MetaData
6001 METAL TOYS
4605 MIC Associates, Inc.
4701 MICROBOARDS TECHNOLOGY INC.
5414 MICROCOM LTD.
6307 Miharu Communications Inc.
4507 MILERUNTECH. CO., LTD.
8504 MITOMO CO., LTD.
4710 Mitsubishi Kagaku Media Co., Ltd.
6207 Mitsui Bussan Aerospace Co., Ltd.
8317 Morisawa Inc.
6102 MOTION PICTURE AND TELEVISION ENGINEERING SOCIETY OF JAPAN INC.
6309 MOUBIC INC.
5410 MUSASHI CO., LTD.
8408 MUSASHI OPTICAL SYSTEM CO., LTD.
4712 MUSASHI SI CO., LTD.
8107 NAB SHOW
7416 Nac Image Technology Inc.
5217 NEC Corporation
3403 NEP Inc.
5603 Network Electronics Japan Co.,
7208 Newtech Co., Ltd.
6109 NextoDI Co., Ltd.
4402 NGC Corporation
6506 NHK Integrated Technology Inc.
6408 NICCABI CORPORATION
6405 NIHON FORM SERVICE CO.,LTD.
6401 Nikon Systems Inc.
5101 Nippon Antenna Co.,Ltd.
4504 Nippon Control System Corporation
4711 Nippon Steel & Sumikin Welding Co., Ltd.
3401 NIPPON VIDEO SYSTEM CO., LTD.
6507 NIXUS Hokkaido Nikko Telecommunications, Co., Ltd.
5506 NKK SWITCHES CO., LTD.
3301 NKL Inc.
5209 NOBUO Electronics Inc.
6509 NTT Advanced Technology Corporation
6509 NTT Electronics
6509 NTT IT CORPORATION
7207 OA LABORATORY CO.,LTD.
4702 OINU VISION CO., LTD.
5113 Onlystyle Inc.
6308 ONTEC CO., LTD.
6105 OptoMedia Technology Inc.
7413 Oracle Corporation
5411 PACO ELECTRONICS INDUSTRY INC.
6213 Panasonic Corporation
6213 Panasonic System Networks Co., Ltd.
7412 PFU LIMITED
4405 PHOTRON LIMITED
6408 Plannet Co., Ltd.
5203 Postium Korea
5104 Prolyte Doughty Japan Inc.
5215 PROMISE Technology
5002 PROSPER ELECTRONICS Co., LTD.
5309 P-tec Co., Ltd.
6303 QNAP
4508 QUANTUM STORAGE JAPAN CORPORATION
7202 RAID Inc.
5403 Raritan Japan, Inc.
3501 RENT ACT SHOTOKU CORP
5211 Research Institute of Systems Planning, Inc.
3313 RF DESIGN Co., ltd.
5613 RIKEI CORPORATION
5405 RIP-TIE INC.
4601 ROCKET Inc.
4511 Rohde & Schwarz
3308 Roland Corporation
6311 ROTOLIGHT
6510 Sakura Eiki Co., Ltd.
8215 SANSHIN ELECTRONICS CO., LTD.
5107 Sanwa Cine Equipment Rental Co., Ltd.
5107 Sanwa Pro Light, Inc.
4501 Seika Digital Image Corporation
5109 SEIKO SOLUTIONS INC.
5305 SEIKOH GIKEN Co.,Ltd.
5501 Semtech Japan
5607 Servants International Corporation/ Mellanox Technologies Japan KK.
5502 SET
6107 SETTSU METAL INDUSTRIAL CO., LTD.
6204 Sevenoak/Boya
5604 SHANPU CO., LTD.
6205 Shenzhen Justek Technology
5610 SHOOTEC-JAPAN Co., Ltd.
3501 Shotoku Corp.
3504 SIGMA CORPORATION
5310 SLIK CORPORATION
3505 Snell Advanced Media Ltd.
3310 Socionext Inc.
6501 Soliton Systems K.K.
4406 Sony Corporation/Sony Business Solutions Corporation
5210 STAR COMMUNICATIONS K.K.
3118 Studer Japan Broadcast Ltd.
5614 SUGAWA VIDEO ENGINEERING CO., LTD.
6504 Sumitomo Electric Industries, Ltd.
6411 Sunmulon Co., Ltd.
8316 Synergy K.K.
3311 TAC SYSTEM, INC.
5609 TACHII ELECTRIC WIRE CO., LTD.
5307 TAKE INC.
5001 TAKIGEN MFG. CO., LTD.
6503 TANAKA DENKI Co., Ltd.
6108 Technical Farm Co., Ltd.
3503 Techno House Inc.
4708 TECHNONET CO., LTD.
4607 Tektronix
5409 Teleforce Co., Ltd.
3313 THAMWAY CO., LTD.
6201 The Institute of Image Information and Television Engineers
8210 Thirdwave Diginnos Co., Ltd.
8318 3D CONSORTIUM
5304 THREEM Inc.
4714 TID Limited
4505 Tokyo Broadcasting System Television, Inc.
8314 Tokyo Eelctron Device, Ltd./inrevium
3306 TOMOCA Electronics Limited
3404 TOMOCA Electronics Limited
5606 Too Corporation
4212 Toshiba Corporation
8505 TOTSU CREATIVE VISION CO., LTD.
8505 TOTSU INTERNATIONAL CO., LTD.
5307 TOV JAPAN INC.
6502 Traffic Sim Co., Ltd.
6110 UNITEX Corporation
5511 Velbon Corporation
5508 Vertically Integrated Center for Technologies of Optical Routing toward Ideal Energy Savings
6513 VIDEO Service Co., LTD.
6315 VIDEOTRON CORP.
6508 VILLAGE island Co., Ltd.
8503 Visual Research Inc.
8319 Vitec Videocom K.K.
5413 Vocas Japan
6301 WAKIYA-GIKEN CO., LTD.
6406 WALLONIA EXPORT-INVESTMENT AGENCY Image Matters intoPIX SA
5612 WASEI CO., LTD.
6104 WELL BUYING INDUSTRIAL CO., LTD.
5105 Yokogawa Digital Computer Corporation
3601 YOSHIMI CAMERA CO., LTD.
5514 YUASA CO., LTD.
7203 Zaxel, Inc.
6512 Zhengzhou KEMA Movie-TV Opto-Electronics Co.,Ltd.
7415 ZhiYun-Tech Co., Ltd.
3309 ZyCast Technology Inc.

Video Expression / Professional Lighting — Hall 4

4302 Agai Trading Corporation
4210 Chainzone Technology (Foshan) Co., Ltd.
4304 CreateLED Japan Co., Ltd.
4207 ENWA Co.Ltd.
4307 Japan Association of Lighting Engineers & Designers
4209 JAPANESE SOCIETY of LIGHTING DIRECTORS
4306 PROKIZAI. COM INC.
4301 SHENZHEN GLOSHINE TECHNOLOGY CO.,LTD.
4205 SHENZHEN JINHUA OPTO-TECH
4303 State of the Art Technologies Expression Association
4305 SUNTECH Co., Ltd.
4211 Toshiba Lighting & Technology Corporation
4211 Toshiba Lighting & Technology Engineering Corporation
4206 WONDER VISION TECHNO LABORATORY Co.,Ltd.

INTER BEE IGNITION

4114 Advanced Imaging Society, Japan Committee
4103 AIS Lumiere Japan Awards Winning Works 2016
4110 Cine Focus Corp.
4109 CREEK & RIVER Co., Ltd.
4116 Digital Signage Consortium
4106 J.TESORI Co.,Ltd.
4115 Jolly Good Inc.
4113 Kid's Plates Inc.
4101 M.SOFT CO.,LTD.
4102 MOTIONELEMENTS
4111 NHK
4112 NHK
4107 Premium ARTS Inc.
4108 Think Design Co.,Ltd.
4105 24Stream Inc.
4104 Yoshihito Nakanishi & Touchence Inc.
4105 YUKAI Engineering.Inc

ICT / Cross-Media — Hall 7-8

8206 Accenture Japan Ltd.
8502 Adobe Systems K.K
8304 Advanced Media, Inc.
7001 Aspera, an IBM company
8305 CCBN
8113 Cinegy
7002 Cisco Systems G.K.
7001 CTCSP Corporation
8116 Dalet Digital Media Systems
7004 DATABROAD CORPORATION
8212 Datapath Limited
8401 DX Antenna Co., Ltd.
8301 Executive Committee of Tokushima 4K Forum
8405 Explorer Inc.
7301 FAIRWAY Corporation
8208 Fiber 26 Network Inc.
8303 Flashback Japan Co., Ltd.
7411 Fuji Television Network, Inc.
7406 FUJIMIC, INC.
8302 Gnzo Inc.
8112 Guntermann & Drunck GmbH
7408 Hokuwa Co.,Ltd.
8201 Hong Kong Trade Development Council
8309 HYTEC INTER Co., Ltd.
8115 IABM
8205 IBC
8111 IHSE GmbH Asia/Itochu Cable Systems
7410 IMD
7405 Indyzone Co, Ltd.
8403 Intel K.K.
8502 Intel K.K.
7501 IPTV Forum Japan
7409 IT Access Co., Ltd.
7401 ITOCHU Techno-Solutions Corporation
8402 Japan Business Systems, Inc.
8217 KOBA 2017 (KOREA E & EX INC.)
8101 Macro Image Technology Inc.
8202 MEDIACAST CO., Ltd.
8003 MEDIAEDGE Corporation
7003 MetaMoJi Corporation
7302 Microsoft Japan Co., Ltd.
8308 Nekojarashi Inc.
8309 NIMBUS, Inc.
8114 OOYALA INC.
8405 PALTEK CORPORATION
7001 Panasas, Inc.
8002 PD System Co.,Ltd.
8301 Plat-Ease Corporation
7402 Red Hat K.K.
8404 Satellite Communications Network Co., LTD.
7502 SkillUp Video Technologies Corporation
7403 Spectee Inc.
8209 Spin Digital Video Technologies GmbH
8102 Techno Mathematical Co., Ltd.
8209 Technology Joint Corporation
8204 UNIADEX, Ltd.
7503 UNIXON SYSTEMS CO., LTD.
8310 WOWOW Entertainment, Inc.
7503 YOSHIDUMI Information, Inc.

USA SHOWCASE

8120 Embassy of the United States of America, Tokyo Japan
8118 Audio Tech
8117 GLIMMERGLASS NETWORKS INC.
8121 Vuzix Corporation
8120 PANASAS
8120 The American Chamber of Commerce in Japan
8119 American State Offices Association
　　　Nebraska Center State of Nebraska
　　　Japan Representative Office
　　　North Carolina Japan Office

INTER BEE CONNECTED

7113 EVC Inc.
7103 Fuji Television Network, Inc.
7105 HAROiD Inc.
7109 Hewlett-Packard Japan, Ltd.
7112 ITOCHU Cable Systems Corporation
7106 MAYA SYSTEM, Inc.
7108 Multiscreen Broadcasting Study Group
7114 Newphoria Corporation
7107 NHK
7104 Nippon Television Network Corporation
7102 TV Asahi Corporation

INTER BEE CREATIVE

8602 EXA INTERNATIONAL
8603 Japan Post Production Association
8601 L'espace Vision Co., Ltd.
8607 NTV Technical Resources Inc.
8604 OMNIBUS JAPAN INC.
8605 Panasonic Visuals Co., Ltd.
8606 Q-TEC, Inc.

The Professional Information Site for Audio, Video and Communications

INTER BEE ONLINE
www.inter-bee.com

Inter BEE sets up a press team "Inter BEE News Center", which distributes information such as exhibition information provided by each exhibitor as well as information about exhibitions related to Japan and countries overseas. Collected information is distributed in the form of articles and videos by the p ress team and provided to target customers through the Online Magazine and Inter BEE TV on Inter BEE official website.

Inter BEE Online articles (excerpt)

Magazine

Cine Focus Corp.   2016.11.4UP

At Inter BEE, Cine Focus Demonstrated 3D Hologram Technology from the English Company MUSION 3D, which Was Used for the Late Michael Jackson's Revival Stage Performance

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Magazine

ONKYO TOKKI LTD.   2016.11.10UP

Onkyo Tokki showcases new Mackie AXIS live mixer with user-friendly iPad and console operation, offer multitrack data mixing simulation

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Magazine

Doramu Co.,Ltd.   2016.11.12UP

Doramu to showcase OZ SCREEN, a transparent video screen, and hold demo of integrated A/V system using new XC-2525B system computer at Inter BEE

Magazine

ANRITSU CORPORATION   2016.10.26UP

At Inter BEE 2016, Anritsu Held a Live Demonstration Using Remote Spectrum Monitors for Radio Wave Monitoring and Interference Source Detection, which Enable Radio Wave Monitoring Through Remote Access to the Internally Equipped Web Server

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Magazine

DynaComware Corporation   2016.11.5UP

At Inter BEE 2016, DynaComware Introduced "DynaSmart V," the DynaFont for Video Production and Broadcasting and Demonstrated the "Saga Fonts" for Historical Productions and Subtitle Fonts Through a Video

DF大河体 StdN W12
筆文字ならではの勢いと力強さを表現した書体です。

本格派時代劇
映像作品に迫力を
与える墨文字書体

Magazine

MEDIAEDGE Corporation   2016.11.10UP

MEDIAEDGE Demonstration at Inter BEE 2016 of ticker broadcasting coordinated with option for Hitachi High-Tech Solutions Corporation's MEDIAEDGE-APM

Magazine

ANTELOPE AUDIO   2016.11.13UP

Mikio Fujioka, the Guitarist Representing Japan, Demonstrates "Zen Tour," the Thunderbolt & USB Audio Interface at the Antelope Audio Booth!

Magazine

INTER-TEC Co., Ltd.   2016.10.29UP

At Inter BEE 2016, INTER-TEC Exhibited the "Information Channel Transmission System, which Links Data Broadcasting and Ticker (Vertical and Horizontal) Broadcasting and Has Been Implemented in 37 Formats for 24 Stations, and Demonstrated Automatic Switching When a Natural Disaster Strikes

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Magazine

Nekojarashi Inc.   2016.11.8UP

Nekojarashi showcases at Inter BEE a demonstration of its new file-sharing service for the video production industry, its dual-video simultaneous preview functionality, and its new Android app

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Magazine

Spectee Inc.   2016.11.11UP

Spectee showcases at Inter BEE an innovative type of accelerated reporting service using social networks, offering real-time information delivery based on image and language analysis through artificial intelligence

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Magazine

ATEN JAPAN CO., LTD.   2016.11.13UP

ATEN introduces optimized one-stop "switch / distribution / extension / control" system for 4K production environment at Inter BEE; demos 32-in/32-out matrix switcher and more

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Magazine

STAR COMMUNICATIONS K.K.   2016.11.2UP

At Inter BEE 2016, Star Communications Exhibited a Sample of the "TVU RPS," the Video Transmission System from TVU Networks that Realizes Switching of Multiple Cameras from a Remote Location

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Magazine

MOTIONELEMENTS   2016.11.8UP

**MotionElements to launch at Inter BEE a worldwide marketplace for VR/360° videos and photos!!
The company will also launch its AI-based, intuitive visual/audio search functionality**

Magazine

CREEK & RIVER Co., Ltd.   2016.11.12UP

Creek & River Co., Ltd. Has Strengthened the Expansion of its VR Business and Demonstrated its Internationally Patented HMD Equipped with a Unique Focus Adjustment Mechanism at Inter BEE

Magazine

ONTEC CO., LTD.   2016.11.13UP

**Ontec exhibits multi-file player "KAMELEON" and optional equipment "Choi-Pac!" at Inter BEE.
The company proposes new ways to flexibly make use of smartphone videos including the transmission of video files**

Magazine

TID Limited　　　　　　　　　　　**2016.11.13UP**

TID for exhibits PCIe3.0, Thunderbolt 3.0 compatible high speed storage for 4K/8K production by Accusys; demos 2,000MBb/s 8K environment

Magazine

LINDY Sales Inc.　　　　　　　　　　**2016.11.15UP**

Lindy Sales Inc. to Exhibit at Inter BEE its Lineup of LINDY Brand Cables (Highly Reliable with Long Term Warranties) and Extender Devices

Magazine — Inter BEE TV

SOUTHERN ACOUSTICS Co., Ltd.　　　**2016.11.16UP**
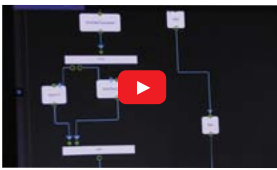
Southern Acoustics exhibiting dummy heads "SAMAR 4500 HR" and "SAMURA 3500HR" for measuring high resolution headphones/earphones

Magazine — Inter BEE TV

Hewlett-Packard Japan, Ltd.　　　　　**2016.11.16UP**

Hewlett-Packard Japan demos a variety of solutions for content management and delivery, as well as viewer experience enhancement

Magazine

DIGIcas LLC　　　　　　　　　　　**2016.11.13UP**

DIGIcas - A variety of IP transmission devices exhibited at Inter BEE 2016 - First Japanese showing of Australian company Tieline's remote transmission system for audio IP

Magazine — Inter BEE TV

Attain Corporation　　　　　　　　　**2016.11.16UP**

Attain display and demonstrate various different types of teleprompters for both recording and speeches

Magazine — Inter BEE TV

Sony Corporation/Sony Business Solutions Corporation　**2016.11.16UP**

Sony/Sony Business Solutions: 4K slow-motion camera system, HDR conversion unit, IP live production system, and various other new products for high-value video production

Magazine — Inter BEE TV

NHK　　　　　　　　　　　　　　　**2016.11.16UP**

Demonstration of 12-channel 8K Super Hi-Vision Transmission Using NHK Science and Technology Research Laboratories' MMT

Magazine

Velbon Corporation　　　　　　　　　**2016.11.13UP**

Velbon exhibits MILLER's new fluid head "Arrow X Series" and demonstrates various equipment to show progress in functionality and operability. Long pole (maximum 3 m) for pseudo aerial shooting also on display

Magazine — Inter BEE TV

Extron Electronics, Japan　　　　　　**2016.11.16UP**

Extron Electronics Exhibits Ultra Wideband 4K Video Wall Processor "Quantam Ultra" Supports up to 10 inputs

Magazine — Inter BEE TV

TANIZAWA SEISAKUSHO, LTD.　　　**2016.11.16UP**

Tanizawa Seisakusho to present variety of IP broadcast solutions at Inter BEE 2016

Magazine — Inter BEE TV

Harmonic Japan GK　　　　　　　　　**2016.11.16UP**

Harmonic Japan demonstrate OTT encoding and delivery optimization with the image quality optimizing solution "EyeQ"

Magazine

Dan Dugan Sound Design, Inc.　　　　**2016.11.15UP**

At Inter BEE, Dan Dugan Sound Design Exhibited Auto Mixer Products and Demonstrated the New iPad Control System, Among Others

Magazine — Inter BEE TV

GIN-ICHI Corp.　　　　　　　　　　**2016.11.16UP**

Gin-ichi exhibits Australian company RODE's 2.4 GHz digital wireless transceiver

Magazine — Inter BEE TV

IBM Japan,Ltd.　　　　　　　　　　**2016.11.16UP**

IBM Japan demonstrates latest storage technology adaptable to 4K 8K workflow. Achieves 512TB, 12GB/s on original 3U flash storage

Magazine — Inter BEE TV

Plat-Ease Corporation　　　　　　　　**2016.11.16UP**

Plat-Ease displays "Metazo" content and archive system and "Telecierge" real-time content viewing promotion service

Magazine — Inter BEE TV

Full score Co., Ltd.   2016.11.16UP

Full Score Co., Ltd. establishes smooth process from 8K recording with a Sony F65SR to delivery media conversion. Demonstration using actual machine conducted at booth.

Magazine — Inter BEE TV

ACOUSTIC FIELD INC.   2016.11.17UP

Acoustic Field demos "CEDAR DNS 2," which provides real-time background noise reduction at voice recording sites

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Magazine — Inter BEE TV

EMC Japan K.K.   2016.11.17UP

EMC Japan Implementation example of EDIUS-Isilon in a blockbuster movie

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Magazine — Inter BEE TV

Intel K.K.   2016.11.17UP

Intel Exhibits Encoder/Decoders that are Compatible with Video Compressing Codecs, such as HEVC and VP9

Magazine — Inter BEE TV

Ronk Japan Corporation   2016.11.16UP

Ronk Japan exhibits low latency digital wireless audio module

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Magazine — Inter BEE TV

Atomos Co., Ltd   2016.11.17UP

ATOMOS exhibit 4K60p, HDR display compatible SHOGUN INFERNO Demonstrations with the Sony XDCAM memory camcorder FS7 II

Magazine — Inter BEE TV

IKEGAMI TSUSHINKI CO., LTD.   2016.11.17UP

Ikegami Tsushinki exhibits several "HDR", "12G" and "IP" related products including solutions to 4K/HD program production.

Magazine — Inter BEE TV

EIZO Corporation   2016.11.17UP

EIZO exhibits for reference its high-brightness 1,000 nits HDR reference monitor currently under development

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Magazine — Inter BEE TV

IDEAL SYSTEMS JAPAN CO., LTD.   2016.11.17UP

Ideal Systems Japan Exhibits 4K Compatible OTT Transmission Software, such as a Demo of "DAZN," PERFORM's Sports Live Streaming Service

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Magazine — Inter BEE TV

Avid Technology K.K   2016.11.17UP

Avid Technology Demonstrates Video, Audio, Coverage, and Sports Solutions based on the Avid Everywhere Concept

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Magazine — Inter BEE TV

ITOCHU Techno-Solutions Corporation   2016.11.17UP

Crossdevice demos live VR transmission at Itochu Techno-Solutions booth

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Magazine — Inter BEE TV

ACEBIL JAPAN CO., LTD   2016.11.17UP

ACEBIL Japan demonstrates electric camera platform to be on sale in January.

Magazine — Inter BEE TV

IDK Corporation   2016.11.17UP

IDK Exhibited a 4K Compatible Multi-switcher and IP Devices

Magazine — Inter BEE TV

ALVIX Corporation   2016.11.17UP

ALVIX Proposes Broadcasting Devices Such as Video/Audio Monitoring Systems, IP On-Demand Monitoring, and Next-Generation Broadcasting Systems

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Magazine — Inter BEE TV

IMAGENICS   2016.11.17UP

Imagenics Demonstrates High-Speed Switch in 0.2 Seconds Using the 16 Input and 16 Output SDI Matrix Switcher "HS-1616" and the SDI Input HDMI Output Converter "CRO-SHC5"

Magazine — Inter BEE TV

AT Communications K.K.   2016.11.17UP

AT Communications exhibits 4K compatible relay car, 4K compatible portable satellite communication antenna

Magazine — Inter BEE TV

NEC Corporation — 2016.11.17UP

NEC exhibits 4K compatible video server "Armadia ff"

Magazine — Inter BEE TV

M&I Network Inc. — 2016.11.17UP

M&I Network displays KMU-100 4K extraction device; extracts up to 2 channels of 4K signals, or up to 8 channels of 3G-SDI signals

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Magazine — Inter BEE TV

KATO ELECTRIC INDUSTRY Co., Ltd. — 2016.11.17UP

Kato Electric Industry Exhibiting various antenna trackers

Magazine — Inter BEE TV

KYOSHIN COMMUNICATIONS Co., Ltd. — 2016.11.17UP

Kyoshin Communications demonstrates 8K monitor out post production using Mistika 8.7

Magazine — Inter BEE TV

NKL Inc. — 2016.11.17UP

NKL display their latest model isolator "AJ DAMPER"

Magazine — Inter BEE TV

MI Seven Japan, Inc. — 2016.11.17UP

Exhibition of MI7 Japan's "ROLI Seaboard RISE", a gesture controlled MIDI controller

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Magazine — Inter BEE TV

Carina System Co., Ltd. — 2016.11.17UP

Carina System exhibits products including "CM Replacer," which works with the use of signals like inter-station control signals and APCs; demos numerous cases including installation by and co-development with broadcasters

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Magazine — Inter BEE TV

KEISOKU GIKEN Co., Ltd — 2016.11.17UP

Keisoku Giken shows 8K noncompressed/ProRes codec editable video server and new video processing technology

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Magazine — Inter BEE TV

NGC Corporation — 2016.11.17UP

NGC: Nokia's OZO VR camera is equipped with 8 lenses and 8 microphones, can record 45 minutes of video with its SSD and battery, and features 2K RAW output

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Magazine — Inter BEE TV

LSI JAPAN CO., LTD. — 2016.11.17UP

LSI Japan exhibits and demonstrates real time subtitle input system with speech recognition function

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Magazine — Inter BEE TV

Gibson Guitar Corp. Japan — 2016.11.17UP

Gibson Guitar Corp. Japan exhibits new KRK brand studio monitor "V Series"

Magazine — Inter BEE TV

Kenko Professional Imaging Co., Ltd. — 2016.11.17UP

KPI demonstrates latest equipment with focus on LED and plasma lights

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Magazine — Inter BEE TV

NTT Advanced Technology Corporation — 2016.11.17UP

NTT Advanced Technology showcases workflow architecture centered on viaPlatz 4K/8K and viaPlats VPR multifunction high-speed video servers

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Magazine — Inter BEE TV

Carl Zeiss Co., Ltd. — 2016.11.17UP

Carl Zeiss exhibits latest cinema lens "ZEISS Lightweight Zoom LWZ.3 21-100mm/T2.9-3.9 T*" for the first time in Japan

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Magazine — Inter BEE TV

Canon Inc. / Canon Marketing Japan Inc — 2016.11.17UP

Canon exhibits CINEMA EOS SYSTEM, broadcasting lenses, commercial displays, projectors, etc. and proposes ideal HDR environment from input to output

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Magazine — Inter BEE TV

Kowa Optical Products Co., Ltd — 2016.11.17UP

Kowa Optical Exhibits the Micro Four Thirds Lens

Cosmic Engineering Inc. 2016.11.17UP

Cosmic Engineering exhibits relay mobile of a broadcasting studio

Shure Japan 2016.11.17UP

Shure Japan exhibits new AV conference solution "MICROFLEX ADVANCE" and white space compatible wireless microphone management software

Soliton Systems K.K. 2016.11.17UP

Soliton Systems exhibits H.265 mobile encoder "Smart-telecaster Zao-S"

d&b audiotechnik Japan 2016.11.17UP

d&b audiotechnik Japan demonstrates simulation software for line array speaker "ArrayCalc"

Sakura Eiki Co., Ltd. 2016.11.17UP

Sakura Eiki demonstrates "8KPRUNUS", "4K workflow" and "PRUNUS HYBRID"

Think Design Co.,Ltd. 2016.11.17UP

Think DESIGN demonstrates VR solution service "QUICK 360" using mobile VR viewer that weighs only 9g

TAC SYSTEM, INC. 2016.11.17UP

Tac System Exhibits Several Audio over IP Related Products, such as Ravenna / Dante Products Compatible with AES67

TAKE INC. 2016.11.17UP

TAKE announces new product "FL-1200", flexible LED light that can be bent up to 60 degrees, allowing dimming of 1-100%, and excellent color rendering realizes high output of 1200W

SANSHIN ELECTRONICS CO., LTD. 2016.11.17UP

Sanshin Electronics showcases LiveU's LU600 H.265/HEVC mobile relay

Sennheiser Japan K.K. 2016.11.17UP

Sennheiser Japan Exhibits AMBEO VR Mic Using Ambisonic

TAMURA CORPORATION 2016.11.17UP

Tamura Corporation exhibits digital mixer "NT Series" and wireless device compatible to high quality audio systems

D-Storm, Inc. 2016.11.17UP

D-STORM demonstrates NewTek's New Series of live video production and distribution system "New Tek IP Series" Demonstrates. Supports maximum 64 source channel switching

CTCSP Corporation 2016.11.17UP

CTCSP Exhibited MPEG-DASH4K Hybrid Cast Transmission from Elemental Technologies

Socionext Inc. 2016.11.17UP

Socionext demos new 8K/4K HEVC products

CHIEF/Audio Visual Communications Ltd. 2016.11.17UP

CHIEF demonstrates its solutions applicable to various scenes

Tektronix 2016.11.17UP

Tektronix exhibits "Prism" for the first time, a media analysis solution that corresponds to SDI/IP mixed broadcasting systems

Magazine — *Inter BEE TV*

Techno House Inc. 2016.11.17UP

Technohouse demonstrates 3G/4G-LTE compatible video transmission system "DMNG PRO series" and real-time 4K cut out Odyssey option "Titan"

Magazine — *Inter BEE TV*

HYPERTOOLS CO., LTD. 2016.11.17UP

Hypertools exhibits 4K full spec compatible HDMI extender, emulator, distributor, scaler, cable, etc.

Magazine — *Inter BEE TV*

Fraunhofer IIS 2016.11.17UP

Fraunhofer IIS Exhibits the Cingo Mobile Device with Immersive Sound for VR

Magazine — *Inter BEE TV*

Media Garden Inc. 2016.11.17UP

Media Garden Exhibits LED Lights with Eto Denki and Kokusai Shomei

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Magazine — *Inter BEE TV*

Toshiba Lighting & Technology Corporation 2016.11.17UP

Toshiba Lighting & Technology Exhibits a High Output LED Spotlight with the Equivalent of 3KW of Halogen and Demonstrates RDM Compatible Devices

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Magazine — *Inter BEE TV*

Panasonic Corporation / Panasonic System Networks Co., Ltd. 2016.11.17UP

Panasonic System Networks showcases AG-UX180 4K memory camera

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Magazine — *Inter BEE TV*
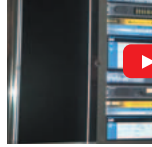
MOUBIC INC. 2016.11.17UP

Moubic exhibits Newtec's "MCX7000" DVB-S2X multicarrier satellite gateway system

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Magazine — *Inter BEE TV*

Yamaki Electric Corporation 2016.11.17UP

Yamaki Electric Exhibited the "PC Loudness Ver.2" Loudness Measurement Application, which Reads in BWF-J Format and Corrects to the Loudness Target Value Level

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Magazine — *Inter BEE TV*

Japan Association of Video Communications 2016.11.17UP

35 Years Since Being Founded in '81, the Japan Association of Video Communications Reinvigorates Information Exchange in the Lively Communications Industry

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Magazine — *Inter BEE TV*

hibino intersound corporation 2016.11.17UP

Hibino Intersound exhibits British company tv1's 4K compatible video wall processor "CORIO master mini"

Magazine — *Inter BEE TV*

MEIKO TECH CO., LTD. 2016.11.17UP

Meiko Tech exhibits video wall controller "MVC series"

Magazine — *Inter BEE TV*

YAMAHA MUSIC JAPAN CO., LTD. 2016.11.17UP

Yamaha Music Japan exhibits "RIVAGE PM 10", rack mount type "TF-RACK" and other latest digital mixers and L2 switches optimized for Dante

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Magazine — *Inter BEE TV*

Pioneer DJ Corporation 2016.11.17UP

Pioneer DJ demonstrates active speaker "XPRS series", sampler co-developed with Dave Smith, viewable studio monitor booth and more.

Magazine — *Inter BEE TV*

Fujitsu Limited 2016.11.17UP

Fujitsu exhibits its new real-time video transmission device IP-HE950

Magazine — *Inter BEE TV*

Media Integration, Inc 2016.11.17UP

Media Integration exhibits new products for creators in all categories; holds hourly product seminars, including one for Pro Tools HD 12.6 software

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Magazine — *Inter BEE TV*

UNITEX Corporation 2016.11.17UP

Unitex Showcasing the world's first USB3.0 enabled LTO-7 tape drives and in-house-developed LTFS LTO tape file system

Magazine	Inter BEE TV

Yokogawa Digital Computer Corporation   2016.11.17UP

Yokogawa Digital Computer displays latest "ICMS-T3" series master integrated monitoring system and automatic deletion system for in-house YouTube content

Magazine	Inter BEE TV

ELECTORI CO., LTD.   2016.11.18UP

Electori exhibits Canadian company Radical's products, which Electori will start handling from November 21, and ATC's latest active monitor speaker "SCM 40A PRO"

Magazine	Inter BEE TV

Vertically Integrated Center for Technologies of Optical Routing toward Ideal Energy Savings   2016.11.18UP

AIST: Victories Demonstrated a Telesession System Utilizing "Dynamic Optic Path Networks," Network Technology with Ultra-low Energy Consumption Transfers

Magazine	Inter BEE TV

IDX Company, Ltd.   2016.11.24UP

IDX exhibits "CW-F25", which allows wireless transmission of 4K video at a maximum of 2 km in the unlicensed 5 GHz band. Equipped with camera control and communication function

Magazine	Inter BEE TV

LEADER ELECTRONICS CORP.   2016.11.17UP

Leader Electronics Corp. exhibits LV 5490 SER06, a 12 G-SDI signal observation option for 4K video format multi-waveform monitor LV 5490

Magazine	Inter BEE TV

DYNAMIC DRIVE POOL   2016.11.18UP

DDP showcases ethernet SAN shared storage

Magazine	Inter BEE TV

HEIWA SEIKI KOGYO CO., LTD.   2016.11.18UP

Heiwa Seiki Kogyo Announced the "HFMP," the Video Monopod Developed with the Main Objective of Self-sustainability

Magazine	Inter BEE TV

Embassy of the United States of America, Tokyo Japan   2016.11.24UP

Inter BEE is now a US Department of Commerce-approved Certified Trade Fair, shows off American IT-related products and services at its booths and lectures

Magazine	Inter BEE TV

Roland Corporation   2016.11.17UP

The Roland HD AV Mixer VR-4HD is now available! A video switcher, audio mixer and capture box, all in A4 size

Magazine	Inter BEE TV

NIXUS Hokkaido Nikko Telecommunications, Co., Ltd.   2016.11.18UP

NIXUS presents new CG-NEXTA telop system with intuitive user-friendly workflow

Magazine	Inter BEE TV

FOR-A COMPANY LIMITED   2016.11.18UP

FOR-A showcases latest tech efforts including 12G-SDI, HDR, WCG, HFR, and Video over IP

Magazine	Inter BEE TV

VILLAGE island Co., Ltd.   2016.11.24UP

Village Island Exhibited the "Flex Viewer," a Multi Viewer Compatible with a Maximum of 35 Channels at H.264@20Mbps, as well as Variout OTT ad CDN Related Products from Overseas

Magazine	Inter BEE TV

ADTECHNO Inc.   2016.11.18UP

ADTECHNO Exhibited a Full Range of Products from [Output] to [Broadcast / Transfer] to [Display] of Videos

Magazine	Inter BEE TV

HYTEC INTER Co., Ltd.   2016.11.18UP

Hytec Inter Demonstrated the "Multi-vender Decoder MDS" Video Surveillance System Used for Security during the Ise-Shima G7 Summit

Magazine	Inter BEE TV

MITOMO CO., LTD.   2016.11.18UP

Mitomo Exhibited the Leica Series of Supreme Quality Cinema Lenses and the "HyperCUBE" 8K Content Player

Magazine	Inter BEE TV

AJA Video   2016.11.24UP

AJA exhibits 4K compatible frame synchronizer & converter "FS4", "KONA IP" that allows seamless IP transition and other latest versions of its products with enhanced functions

S.C.ALLIANCE INC.   2016.11.24UP

S.C.Alliance Exhibited the Wireless Model of its New Product, "Green-GO," a Digital Intercom/Cue Light System

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Japan Material Co.,Ltd.   2016.11.24UP

Japan Material exhibits new products of American company's 4K HDR compatible signage player "BrightSign" and H.264 encoder that synthesizes and distributes video, audio and image

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Traffic Sim Co., Ltd.   2016.11.24UP

Traffic Sim Exhibited "MARKS," an Overall Aggregate Monitoring System, "RecShare," a Broadcast Data Transmission System that Transmits within the Station or Shares Broadcast Data, and Various Broadcast Monitoring Systems

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LIVEGEAR Inc.   2016.11.24UP

Livegear exhibits Italian speaker "K-array", German cable maker "SOMMER CABLE" and Livegear's original LED equipment for stage purposes

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Grass Valley K.K.   2016.11.24UP

Grass Valley Began to Provide "EDIUS 8 Version 8.3" for Free and Announced the Usage of "HDWS" and "REXCEED" for Sony's Reporting Media Backbone

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JUNS inc.   2016.11.24UP

JUNS Exhibited "LiveStudio-Sports," a Broadcasting System Equipped with a Screen Splitting Function for Sports Programming, 6 System SDI/HDMI Input, Television Opaque Projection, and Various Other Features

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BROAD-DESIGN Co., Ltd   2016.11.24UP

Broad design: "PR-30" a news-cutting tool jointly developed with TV Tokyo; edit video quickly for a speedy delivery

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Adobe Systems K.K   2016.11.25UP

Adobe Systems demonstrates latest function of video production tools in Adobe Creative Cloud's new version released in November. Supports RED 8K format, HDR output

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JVCKENWOOD Corporation   2016.11.24UP

JVC Kenwood introduces GY-LS300CH 4K60p firmware, 4K HDR system solution

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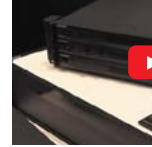
TEAC CORPORATION   2016.11.24UP

TEAC Exhibited the "DA-6400 Series," 64ch Digital Multi Track Recorders Capable of Synchronized Recording with Pro Tools

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BOSE K.K.   2016.11.24UP

BOSE shows off ShowMatch DeltaQ array speakers delivering concert quality sound in spaces of all shapes and sizes

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ISHIKAWA TRUNK Co., Ltd.   2016.11.25UP

Ishikawa Trunk Exhibited Shipping Cases for 2U, 3U, and M size Trunks Compatible with 80kg of Load

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JapanCableCast Inc.   2016.11.24UP

JapanCableCast demos 4K HDR transmission for live events; presents complete install/circuit setup/management package for relay broadcast

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DX Antenna Co., Ltd.   2016.11.24UP

DX Antenna demos "DX Multicast" IPDC information service; provides emergency and disaster info, sightseeing info services, parking space availability info, and more

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METAL TOYS   2016.11.24UP

METAL TOYS are exhibiting their long-distance travel slider, "beetle BEYOND". Durable-construction rails support even the weight of large broadcasting cameras, and can even be used for movement while hanging

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Vitec Videocom K.K   2016.11.25UP

Vitec Videocom demos Litepanels rainproof LED, Sachtler 19.3kg load bearing VIDEO18 S2, V-mount battery for digital cinema

Magazine — Inter BEE TV

Explorer Inc. 2016.11.25UP

Explorer displays UHD video delivery-related products including "GearBox" 12G-SDI evaluation board with uncompressed 4K60p capability

Magazine — Inter BEE TV

ComodoMattina, Inc. 2016.11.25UP

ComodoMattina demos Japan debut of MiPRO wireless mic system; unveils speaker lineup including Alcons dual-line array

Magazine — Inter BEE TV

Nac Image Technology Inc. 2016.11.25UP

nac Image Technology Exhibited ARRI ALEXA SXT, the Angenieux Type EZ Series, and "Sky Panel S120-C," the ARRI Made Panel Light

Magazine — Inter BEE TV

FUYOH VIDEO INDUSTRY CO., LTD. 2016.11.25UP

Fuyoh Video Industry exhibits latest products of IP video router systems

Magazine — Inter BEE TV

Audio-Technica Corporation 2016.11.25UP

Audio-Technica showcases infrared mic system, 31-frequency concurrent operable AT Wireless 6000 Series and more

Magazine — Inter BEE TV

Solid State Logic Japan K.K. 2016.11.25UP

Solid State Logic Japan exhibits latest DAW controller "Nucleus 2" and Dante compatible large digital console "System T"

Magazine — Inter BEE TV

NHK 2016.11.25UP

（NHK Science & Technology Research Laboratories）It's coming out of the screen! Augmented TV: an augmented experience; a proposal to use digital signage with vertical displays

Magazine — Inter BEE TV

Manfrotto Distribution K,K 2016.11.25UP

Manfrotto Announced "befree live," an Italian Made Small Professional Fluid Platform Tripod Set with 4kg Load Capacity, Scheduled for Release on November 30

Magazine — Inter BEE TV

CreateLED Japan Co., Ltd 2016.11.25UP

CreateLED Exhibited the Ultra-high Definition LED Signage 1.6mmP AirMAG-1 for the First Time in Japan and Exhibited Displays Allowing Curved Surfaces and Complex Combinations

Magazine — Inter BEE TV

Toshiba Corporation 2016.11.25UP

Toshiba proposes comprehensive solutions for broadcasters in the practical application of 4K/8K broadcasts

Magazine — Inter BEE TV

NHK 2016.11.25UP

NHK Science & Technology Research Laboratories Demonstrated the "Real Time 3D Ball Tracking System," to be Utilized for Clear Expressions during Ball Sports Programming

Magazine — Inter BEE TV

YUASA CO., LTD. 2016.11.25UP

YUASA Developed the "Multiaxis Pan & Tilt System" for Broadcasting Van Telescopic Masts, which has a Load Capacity of 20kg and Enables Driving in Different Directions of a Maximum of 3 Mounted Devices

Magazine — Inter BEE TV

CrossImaging 2016.11.25UP

CrossImaging demos range of weather and disaster prevention systems; introduces latest features of "Bolt Weather Station" 3D meteorological image system

Magazine — Inter BEE TV

TOTSU INTERNATIONAL CO., LTD. 2016.11.25UP

Totsu International: Demonstration of a working implementation of an IP solution offered by Grass Valley. Our exhibition will feature not just working models of our selection of aerial filming drones but a dual-axis shake-resistant gimbal from Bradley for visitors to take into consideration

Magazine — Inter BEE TV

Neutrik Limited 2016.11.25UP

Neutrik Exhibited the "optical CON" Series, an Optical Fiber Connector Featuring a Sealing Cover that Automatically Protects the Light Poles from Dust and Debris

Magazine — Inter BEE TV
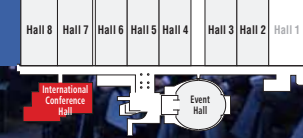
RAID Inc. 2016.11.25UP

RAID Exhibited the "TRANSCODER" from COLORFRONT, Enabling Real Time Playback of 8K60p Material, as well as a LUT Compatible Organic EL Monitors from FSI

INTER BEE FORUM

TUTORIAL SESSION

Keynote 1 ▶Venue : International Conference Room, 2F International Conference Hall

4K/8K Roadmap Progress and Prospects

10:20 ▼ 11:20

Broadcasting Policy Trends and Prospects
Mr. Mabito Yoshida
Deputy Director-General, Ministry of Internal Affairs and Communications

Super Hi-Vision Test Broadcasting and Prospects toward the Tokyo Olympics
Mr. Haruguchi Atsushi
Director of Engineering Administration Department/ Deputy Chief of Engineering NHK

About Our 4K broadcasting initiatives Mr. Jiro Komaki
Director of the Board, Senior Managing Executive Officer Unit President,
Broadcasting Business Group, Multichannel Pay TV Business Unit
SKY Perfect JSAT Corporation

Keynote 2 ▶Venue : International Conference Room, 2F International Conference Hall

Looking back on the Rio 2016 coverage to think about 2020

11:40 ▼ 12:40

Rio 2016: Globo delivers the biggest and widest sports coverage in its history
Mr. Jose Manuel Fernandez Marino
Sports Technology Director, Globo Group Enterprises (TV Globo)

Looking back on the SHV content production at Rio 2016
Mr. Yoshikazu Higashi
Broadcast Engineering Department, Japan Broadcasting Corporation (NHK)

Keynote Speech Relay Broadcast ▶Venue : International Conference Room, 2F International Conference Hall

Market development and Business prospect for DAZN in Japan

13:00 ▼ 14:00
Mr. John Gleasure
CCO of DAZN, Perform Group

Special Session 1 ▶Venue : International Conference Room, 2F International Conference Hall

The Role of Broadcasting and Internet in Disaster-prone Islands

Keynote
Efforts of a local government for the homeland which entered a period of frequent disasters, and expectations for broadcasting and the media
Mr. Kamon Iizumi
Governor of Tokushima Prefecture

11.16 (Wed)

Panel Discussion
All-out Information Battle to Consolidate the Society in Disaster-prone Age
Moderator

15:00 ▼ 17:00

Mr. Osamu Sudoh
Professor, Ph.D., Graduate School of Interdisciplinary Information Studies(GSII),
The University of Tokyo
Chief Officer, Local contents delivery Service platform utilizing SmartTV (LETS SMARTTV)

Mr. Kamon Iizumi
Governor of Tokushima Prefecture

Mr. Kengou Shibata
Digital Content Center, Japan Broadcasting Corporation

Mr. Nobuhiko Arizumi
Deputy Director, News Programming Production Bureau, Kumamoto Telecasting Corporation

Panelists

Mr. Takeshi Sanjo
Director, Programing Dept., TBS Radio, Inc.

Mr. Kunihisa Matsumoto
Executive Managing Director, Shimoda Cable Television Co., Ltd.

Mr. Ryo Hata
Public Policy Manager, Yahoo Japan Corporation

Mr. Kiyotaka Eguchi
Chief, Public Policy and CSR Dept., LINE Corporation

Invited Session 6 ▶Venue : Room 101, 1F International Conference Hall

USA Showcase Forum: Technology New Technologies from the USA

10:30 ▼ 12:00

Opening remarks
Mr. Erick Kish
Commercial Attache, US Embassy, Japan

Glimmerglass Intelligent Optical System for Video Applications
Ms. Alice Kung
Asia Business Development Director, Glimmerglass Networks

SoundCheck; Audio Test and Measurement System
Mr. Tomohiko Teraoka
Sales Manager, Audio Tech

Accelerate Workflow Performance for High Resolution Picture Production with Panasas Direct Flow
Mr. Masataka Ochiai
Assistant to Executive and Promotion Department,
Solution Development and Promotion Department, CTCSP Corporation

Invited Session 1 ▶Venue : International Conference Room, 2F International Conference Hall

10:00 ▼ 10:40
The IABM tracking the Broadcast and Media industry trends
Mr. Peter Bruce
Director, APAC IABM

Invited Session 2 ▶Venue : International Conference Room, 2F International Conference Hall

11:00 ▼ 11:40
Digital Transformation of the Media Business to the Cloud
Mr. Tony Emerson
Managing Director, Worldwide Media & Cable
Microsoft Corporation

Mr. Daiyu Hatakeyama
Technical Evangelist, Microsoft Japan Co., Ltd.

Invited Session 3 ▶Venue : International Conference Room, 2F International Conference Hall

12:00 ▼ 12:40
We've come this far! Cutting-edge of Cloud in the media industry
Mr. Ben Masek
Global Business Development Lead for Media and Entertainment,
Amazon Web Services, Inc.

Mr. Kiyonori Kitasako
Manager, Solutions Architect, Media & Entertainment Department,
Solutions Architecture, Amazon Web Services Japan K.K.

INTER BEE IGNITION Keynote ▶Venue : International Conference Room, 2F International Conference Hall

INTER BEE IGNITION –Outlook 2020

Keynote
2020×Pop&Tech
Mr. Ichiya Nakamura
Professor, Keio University Graduate School of Media Design

13:00 ▼ 14:30

Panel Discussion
"Future of Media & Entertainment Opened Up by Technology"
Moderator

Ms. Mariko Nishimura
Chief Editor of SENSORS.jp CEO, HEART CATCH Inc.

Mr. Kei Wakabayashi
Editor in Chief, WIRED Japan

Panelists

Mr. Atsushi Wakimoto
General manager, Cultural Division, Computer Graphic Arts Society(CG-ARTS)
Secretariat Director of Japan Media Arts Festival

Mr. Naotaka Fujii
Representative Director, Hacosco Inc.

11.17 (Thu)

Visual Symposium ▶Venue : International Conference Room, 2F International Conference Hall

Challenge to 4K·8K Visual Contents: Examples in Hollywood and Japan

MC Mr. Hideichi Tamegaya   Councilor of Joshibi University of Art and Design
Mr. Seiji Kunishige   Part-time lecturer of Joshibi University of Art and Design

Keynote
Case Study: Meridian
Mr. John Daro
Senior DI Colorist, FotoKem

Presentation1
Production of image contents utilising high-resolution spatial characteristics
Mr. Hiroshi Koike
CDC Planner, Dentsu Inc.

15:00 ▼ 17:00

Presentation 2
8K Imaging Technologies and Their Medical Applications
Mr. Kenkichi Tanioka
Vice Chairman, Medical Imaging Consortium

Presentation 3
New Environmental Maintenance for 8K Post-production and Challenge to Formulate 8K Content Production Workflows
Mr. Koichi Tonozuka
Akasaka Sales & Produce Group, TV Program Production Department, IMAGICA Corp.

Panel Discussion
How does the image world 4K and 8K technology creates, open the future?

Invited Session 4 ▶Venue : International Conference Room, 2F International Conference Hall

USA Showcase Forum: Innovation New Innovations from the USA

10:00 ▼ 11:40

Opening remarks
Mr. Jonathan M. Heimer
Commercial Counselor and Deputy Senior Commercial Officer
United States Embassy in Tokyo

Connected Creativity: From 4K to 8K to 360 VR: Adobe's Video Tools Deliver the Future of Editing
Mr. Jason Levine
Principal WorldWide Evangelist Adobe Systems

Virtual Reality for Everyone: Opportunities and Challenges
Mr. Hao Chen
Senior Principal Software Engineer Amazon.com, Inc.

Video transmitted Smart Glass Solutions for Enterprise market
Mr. Keiichiro Fujii
Director of Operations Japan

Invited Session 5 ▶Venue : International Conference Room, 2F International Conference Hall

12:00 ▼ 12:40
The Moment is Now? Cloud is Transforming Digital Media Management
Mr. Paul Jones
Sales Director, Digital Media Solutions, Oracle Corporation

INTER BEE CREATIVE Keynote Speech ▶Venue : International Conference Room, 2F International Conference Hall

13:00 ▼ 14:30
INTER BEE CREATIVE "Asia Super Session"
Underlying Strength of MADE IN JAPAN
Mr. Shinji Higuchi
Movie director

Special Session 2 ▶Venue : International Conference Room, 2F International Conference Hall

Each method of IP live transmission proposals and its development from now

11.18 (Fri)

①Guidelines   Mr. Isamu Yoshii Publisher, New Media magazine

②Part1: Explanations for Each Method   **AIMS (Alliance for IP Media Solutions)**
Mr. Michael Cronk
Chairman of the Board, AIMS VP,
Core Technology, Grass Valley

ASPEN
(Adaptive Sample Picture Encapsulation)
Mr. Mo Goyal
Director, Product Marketing,
Evertz Microsystems Ltd.

NMI (Network Media Interface)
Mr. Teruo Kajiura
Deputy General Manager,
Professional Solutions and Services Group
Media Segment Business Division Products &
Solutions Planning Department, Imaging Products and
Solutions Sector, SONY Corporation

15:00 ▼ 17:00

IP-VRS (IP Video Router System)
Mr. Kazunori Nakamura
Senior Manager,
Marketing & Business Development,
MEDIA GLOBAL LINKS CO., LTD

NDI (Network Device Interface)
Mr. Will Waters
Director, Product Marketing &
Sales Enablement,
NewTek, Inc.

③Part2: Panel Discussion
Compatibility of Each Method, Cost for IP Transformation and its Prospect from Now
Moderator
Mr. Masanori Wada
General Manager Engineering Dept.,
FOR-A Company Limited

Panelists
Mr. Tetsuya Miyazawa
General Manager, Imaging Network
Business Division, Panasonic Corporation/
AVC Networks Company

And Part1-Presenters in this session

Audio Symposium ▶Venue : Room 101, 1F International Conference Hall

Techniques and Applications of Audio Restoring

MC Mr. Mick Sawaguchi   President Mick Sound Lab Inc., Fellow Member of AES/ips
Mr. Takehiko Abe   Engineering & Technical Operations Division, TV Asahi Corporation

11.18 (Fri)

13:00 ▼ 16:00

Basics of Audio Restoration Workflow
Mr. Jonathan Wyner
Chief Engineer, M Works Mastering Studio/
Education Director,
iZotope,Inc. Associate Professor,
Berklee College of Music

Audio source restoration software and mastering in music production
Mr. Masahiro Tabayashi
Studio Engineering Department
Chief Mastering Engineer,
NIPPON COLUMBIA CO., LTD.

Those that result by the audio restoration technology in real-time
Mr. Takahiro Sutoh
Manager, Microsound

De-mixing, Artificial Intelligence, and the Future of Audio Restoration
by Zynaptiq
Mr. Jason E. Davies
President & CEO, Eleven Dimensions Media, LLC
VP Global Sales & Business Development,
Zynaptiq, GmbH

Attendance Fee 1 session ¥2,000 (Consumption Tax Included) 2 sessions ¥3,000 (Consumption Tax Included)

Visual Session ▶Venue : Room 101, 1F International Conference Hall

Session A
The Current Picture and Future Vision of VR Study
Mr. Takeshi Kurata
Executive board member, The Virtual Reality Society of Japan
Research Group Leader,
National Institute of Advanced Industrial Science and Technology (AIST)

13:00 ▼ 14:30

VR Content Production Techniques: Unity and UE4: Basics
Mr. Kazuki Kumagai
R&D, OLM Digital, Inc.

11.16 (Wed)

Session B
15:00 ▼ 16:30
VR Content Production Techniques: Unity and UE4: Applications
Mr. Kazuki Kumagai
R&D, OLM Digital, Inc.

Audio Session ▶Venue : Room 101, 1F International Conference Hall

Session C
LIVE SOUND expounded by a top PA sound designer
Moderator
Mr. Koichi Hanzawa
President, Innovation, inc.

Panelists

Mr. Shuzo Fujii
Chairman, MSI JAPAN HOLDINGS CO., LTD.

Mr. Akira Inoue
President, Inox sound design inc.

11:00 ▼ 12:30

11.17 (Thu)

Mr. Tohru Kikuchi
CEO, TOKYO ONKEN

Mr. Katsuyuki Nishizawa
Chairman/CEO, CLAIR Japan, Inc.
Director, Stage Sound Business Cooperative

Session D
I do not really want to tell you !!
Technique of sound processing for the director and cameraman: The Final
Mr. Kazutaka Someya
Sound Designer / Re-Recording Mixer, be Blue Co.,Ltd·AOYAMA Studio.

13:30 ▼ 15:00

3:00 PM - 5:00 PM, Wednesday, November 16th   Special Session 1

How should the government and media cooperate on an archipelago with frequent disasters?

Mr. Kamon Iizumi, Governor of Tokushima Prefecture, gave the keynote speech in this session. Tokushima Prefecture is working on broadband infrastructure development through optical fiber to promote new ways of working (e.g. working in satellite offices or teleworking) as a model of bringing together the 4K/8K digital content industry and promoting regional creation and as a part of business continuity planning in companies.

For example, Tokushima Prefecture has been working on a project together with the Ministry of Internal Affairs and Communications to realize a strategic information sharing system that blends geospatial information and ICT to show road accident information and tsunami flooding simulations on maps. Furthermore, the prefecture has also concluded an agreement with Amazon and Yamato Transport to match the needs of disaster-hit areas and supporters by utilizing online shopping sites as a first such initiative of its kind in Japan. Moreover, inbound tourism measures are also being promoted by setting up Wi-Fi throughout the prefecture. There is also an aspect that the information sent by local governments during a disaster can obtain the trust of residents through the filter of media organizations. Tokushima Prefecture is developing

an information sharing system for disasters. This is a system that can be used seamlessly even during a disaster by everyone in the media through L-ALERT.

Mr. Iizumi stated that it would be great if these efforts become a model of growth strategy and spread across Japan.

■ What roles do the media play during a disaster?

The NHK's Mr. Kengou Shibata positions national network broadcasting at the center of this and has been advocating public media recently. He is aiming to promptly convey information covered by NHK using all forms of media (e.g. news tickers, data broadcasting, radio, Internet radio, websites and apps).

Kumamoto Telecasting Corporation's Mr. Nobuhiko Arizumi expressed his gratitude for the support Kumamoto received from all over Japan and the world. Everyone in his company thought hard about what it is possible to do as a local station. Against this backdrop, the decision was taken to deliver news close to the local victims and to leave the news delivered to the rest of the country to affiliated stations who came to provide support.

TBS Radio's Mr. Takeshi Sanjo believes that radio can serve as the last stronghold for victims of disasters (e.g. those in evacuation shelters, those suffering a power outage, the elderly and the blind). Moreover, there is also a means called "radiko" in commercial broadcasting in which wide FM is being set up throughout the country to allow listeners to hear the programs of AM stations in FM.

Shimoda Cable Television's Mr. Kunihisa Matsumoto believes that cable television has a major role to play by providing detailed information on daily life in close contact with local residents during a disaster. The company has been praised for calling for the assembly of fire brigades and delivering fire and river information on a 24-hour basis in past disasters.

Yahoo Japan's Mr. Ryo Hata provides translated content for foreigners in addition to supplying information using a smartphone app and L-ALERT. There is a challenge of how to provide information in regards to the fact that the information required by disaster victims changes at that time on search services.

LINE's Mr. Kiyotaka Eguchi said that the LINE service was created on the occasion of the Great East Japan Earthquake. There are many services that were created thinking of the ability to use them during a disaster, such as stamps to simply convey your feelings to others and an "already read" function, to allow communication between those on friendly terms.

■ How to make use of the challenges in the Kumamoto Earthquake in the future?

False rumors spread by SNS during the Great East Japan Earthquake and also during the Kumamoto Earthquake (e.g. a rumor that a lion had escaped from a zoo). Net literacy education is necessary. It is also possible to judge the credibility of a sender from his/her profile and his/her previous tweets. It is very important to deliver correct information with an even

stronger force than false rumors on legitimate routes in order to eliminate hoaxes.

Was L-ALERT utilized? The challenge is to request the standardization of rules on a country-wide basis to cover local governments when a disaster occurs due to the lack of input personnel. When those in local governments feel the effect of information dissemination by L-ALERT, it leads to them prioritizing input. However, this is the role of those in the media. There are hopes for L-ALERT to effectively utilize the information in L-ALERT to cover other things.

In the case of a disaster that can be predicted ahead of time, it is possible to minimize damage by preparing in advance. However, unexpected disasters require regular training. It is also necessary to train for combined disasters (e.g. an earthquake and flooding). It is also important to have training under a scenario in which a disaster occurs late at night when there are extremely few responders. It is also believed that joint training involving local governments and the media should be considered. Furthermore, it is no doubt important to hold drills concerning the mutual complementation of the media.

■ The wave of AI is engulfing all industries around the world.

Finally, Professor Mr. Osamu Sudoh, who works in the Graduate School of the University of Tokyo and who served as the moderator of this discussion, said that the battle in the future era will be decided by how to provide digital as services through the cloud and AI. The BBC is also considering new strategies with the integration of its broadcasting and Internet businesses. Inter BEE this year was centered on the broadcasting industry. However, it is essential for the government, the private sector, broadcasters and scholars to consider the convergence of the Internet and broadcasting systems with an even larger point of view. He then finished by expressing a desire for recognition that disasters are an extremely important topic.

New visual experience unlocked by 4K/8K

At the Visual Symposium, Mr. John Daro of FotoKem, Mr. Hiroshi Koike of Dentsu, Mr. Kenkichi Tanioka of Medical Imaging Consortium and Mr. Koichi Tonozuka of IMAGICA discussed the future of video.

"Meridian" is an experimental program made for "Netflix". A production pipeline is constructed mainly containing a management system, allowing a bunch of engineering requirements. "Meridian" is 4K HDR video shot with 60 frames per second with a peak brightness level of 4000 nits and artistically it has attracted interest for old film texture expressed by ACES. (Mr. Daro)

8k video has a new value, charm and role. For example, visitors can view it totally at the same time, the experience is immersion feel simply by sound through 22.2 channel audio, enjoy RPG games that allow users to get a whole view of the map as a full picture due to greater interactivity, and enjoy VR and 3D which can be enjoyed with the naked eye due to increased reality. New visual experiences are stimulating new demand. (Mr. Koike)

Current endoscopic operation is as close to abdominal operations as can be. The biggest advantage of 8K endoscope operations, as admitted by doctors, is gained from the spacious operating area. Also, it is greater hoped that distinguishing between cancerous and healthy tissue, and anastomosis operations will become easier. The challenge will be developing an ultrasensitive image sensor. (Mr. Tanioka)

8K production is expected to be great demand in anticipation of the Tokyo Olympics and Paralympics, but there are extremely few editing offices. Due to the achievements of 4K video editing, a site dedicated to 8K video editing has been opened this year. 8K production issues include filming locations, monitoring the environment during production work, sense of realism, focusing and secondary processing time. (Mr. Tonozuka)

In the panel discussion, it was said that in order to create a new video experience by ultra-high resolution video, it is important for creative teams to drive technology rather than the other way round. Technical development strength in areas with high of demand, such as the medical field, lead the world and the benefit that bring to the media field was also discussed.

Sound restoring technology and application

Audio restoration workflow

This was presented by Mr. Jonathan Wyner (Chief Engineer, M Works Mastering Studio). Mr. Wyner explained the basic concepts of audio restoration, and introduced techniques to restore and correct visual expression using the iZotope RX software's spectrogram. His demonstration included removing steady state noise (hissing and humming noises) and transient noise, as well as audio restoration by correcting the head room of distorted materials.

Audio restoration software and mastering in music production

This was presented by Mr. Masahiro Tabayashi (Chief Mastering Engineer, Studio Engineering Department, NIPPON COLUMBIA CO., LTD.). Audio restoration when mastering includes the removal of performance noise, lip noise, humming noise, hissing noise and so on. When reproducing a former sound source (archive material) as a product, noise processing is important, even essential, so audio restoration software matching the noise type is used for processing. A noise processing demonstration was performed at the venue using the sound source of a standard-playing record.

Effects of original sound reproduction technology in real-time

This was presented by Mr. Takahiro Sutoh (Manager, Microsound). He introduced the CEDAR Audio product, "dns2", which muffles noises from outside, such as the sounds of cicadas and rain, as well as background music at events, etc. Microphones were actually taken into the venue as a test

sound source, and a pin microphone was used to show how it can be applied to howling prevention. The foremost attraction of dns2 is being able to process virtually in real-time, and it can be fully used at sites where real-time processing is required.

Demixing, artificial intelligence and the future of audio restoration

This was presented by Mr. Jason E. Davies (President & CEO, Eleven Dimensions Media, LLC). Zynaptiq develop solutions using technology based on source separation, machine learning, pattern recognition, and Mr. Davies introduced their future capabilities.

He gave an explanation of UNVEIL (real-time reverb adjustment and signal focusing), UNCHIRP (reusing audio with degraded sound quality caused by irreversible voice coding), and UNMIX::DRUMS (emphasizes or removes drum sound in a mixed sound source) and demonstrated their respective capabilities.

The IABM tracking
the Broadcast and Media industry trends

Mr. Peter Bruce
Director, IABM APAC

Broadcasting equipment suppliers still rely on hardware for their income (54%), but it looks like software will soon exceed 50% of their income. Because broadcasting stations and the media industry are shifting to a software-lead business infrastructure using existing equipment, custom-made equipment manufacturers have been struggling. Existing suppliers, therefore, are shifting from dedicated hardware to software that runs on multi-purpose equipment.

In the broadcasting markets of advanced nations, there is increasing investment in transmission-related products and services due to a shift to next-generation terrestrial standards (ATSC3.0 and DVB-T2).

In emerging nations, however, there is still expected to be large industrial demand due to long-term shifts from SD to HD and analog to digital. For example, switchover to terrestrial digital broadcasting in the Asia-Pacific region is only complete in Japan and South Korea. As to the shift to UHD, it is not clear whether consumers want this.

The development of devices, particularly mobile ones, is changing ideas about conventional broadcasting, so the increased efficiency of the industry is being pursued due to excess costs as well as to raise technological funds.

Digital Transformation of
the Media Business to the Cloud

Mr. Tony Emerson
Managing Director, Worldwide Media & Cable, Microsoft Corporation

Mr. Daiyu Hatakeyama
Technical Evangelist, Microsoft Japan Co., Ltd.

Microsoft's Azure Media Analytics is an AI/machine learning cloud service developed to be easily used by people working at broadcasting stations. It has several functions that generate metadata for the user. One such function is to "convert spoken words to text". The second is to identify certain people's faces from images and assess emotions from eight types of feelings. The third, which is used for monitoring cameras and the like, isolates moving objects. The fourth extracts textual data that appears in moving images.

Azure Media Analytics has another "clipping" function. That function automatically creates a clip of highlights, enabling about two hours of video to be smoothly condensed into about two minutes of highlights. Its last function is to blur certain people in an image.

To give an example, when the image of a person swimming is imported into this service, not only can it identify that person's sex, age and face, it will also automatically generate a sentence such as "this person appears to be swimming in a swimming pool".

We've come this far!
Cutting-edge of Cloud in the media industry

Mr. Ben Masek
Global Business Development Lead for Media and Entertainment, Amazon Web Services, Inc.

Mr. Kiyonori Kitasako
Manager, Solutions Architect, Media & Entertainment Department, Solutions Architecture, Amazon Web Services Japan K.K.

One problem currently faced by the media industry is that high-quality content such as 4K and HDR require vast amounts of data, so storage that can be flexibly expanded is required. In addition, workloads are not fixed and tend to balloon during peak periods.

The most powerful solution to such problems is cloud services. Identifying eight media workloads in the broadcasting industry, Amazon Web Services (AWS) has brought in dramatically increasing usage performance over the last three years in Japan in a variety of fields. NHK World has been able to segment video for video on-demand distribution straight after broadcast by using AWS, greatly improving the efficiency of workflows. The CG production company, Polygon Pictures, realized a time-charged high-speed render farm via a cloud by performing high-speed rendering using AWS' GPU virtual server. Additionally, the music provider, AWA, uses AWS' global platform to obtain up to 30 million pieces of music data from across the world, and NTT East used the FLET's network with AWS to provide a live 4K relay of the Tsuchiura All-Japan Fireworks Competition.

The use of this service by the cloud media industry is expected to grow even more in the future.

The Moment is Now?
Cloud is Transforming
Digital Media Management

Mr. Paul Jones
Sales Director, Digital Media Solutions, Oracle Corporation

When media companies manage and operate their own contents, deciding whether to build an on-premises system or use a cloud is a cause of worry. Oracle Corporation can provide a solution that allows users to seamlessly and integrally manage on-premises software and a cloud. Another feature of this service is its flexibility. Users can change the use balance between on-premises software and a cloud even after starting operations.

When managing contents, the huge amount of files are categorized as ones that need to be frequently extracted, ones that are rarely used, and those positioned somewhere in-between. So, storing those files in a hierarchical data container is clearly helps to reduce total operational costs. A cloud can be added to this as an even more accessible layer.

The Oracle managed application, which is called contents storage management (CSM), executes an object lifecycle policy including this cloud layer. It can also provide a variety of benefits to users including object management encapsulation, partial restore to select and extract necessary parts only, storage of processing stage logs, and operational status analysis.

INTER BEE CONNECTED

**Broadcasting is changing toward 2020.
Media communication is evolving and
new business models are being created.**

Planned Sessions

◆ Showcasing How Broadcasting Will Change and Evolve

▶ Venue: INTER BEE CONNECTED Theater, Exhibition Hall 7

11.16（Wed）

Diversifying Video Viewing Styles Realities and Television

11:00 ▼ 12:30

Moderator
Mr. Ritsuya Oku
Chief Executive Director,
Media Innovation Lab,
Dentsu Innovation Institute,
Dentsu Inc.

Panelist
Mr. Masataka Yoshikawa
General Manager of the Institute of Media Environment
Hakuhodo DY Media Partners Inc.

Ms. Kaoru Kato
Executive Manager of the Institute of Media Environment
Hakuhodo DY Media Partners Inc.

Mr. Akira Miwa
Director,
Media Innovation Research Department
Dentsu Innovation Institute, Dentsu Inc.

Ms. Mariko Morishita
Chief Researcher,
Media Innovation Research Department
Dentsu Innovation Institute, Dentsu Inc.

INTER BEE CONNECTED Keynote Speech

13:00 ▼ 14:00

Market development and Business prospect for DAZN in Japan

Mr. John Gleasure
CCO of DAZN, Perform Group

Relayed the session from the International Conference Hall

How Will New Viewing Measurements Change Television?

14:20 ▼ 15:50

Moderator
Mr. Osamu Sakai
Media Consultant

Mr. Takahiro Nagasaki
Corporate officer,
INTAGE.inc

Panelist
Mr. Makoto Niitsuma
Solution Business Development
Division Director
Video Research Ltd.

Mr. Yoshiya Nakamura
Executive analyst, Watch/Digital
The Nielsen Company Japan

Moving Further Away from Television? The Ecosystem of Young People

16:10 ▼ 17:00

Moderator
Mr. Yohei Harada
Hakuhodo Inc.

Mr. Shotaro Ono
Faculty of Letters 3rd grade,
Keio University

Panelist
Mr. Kazuyuki Maeda
Faculty of Business and Commerce 4th grade,
Keio University

Mr. Yugo Katsuyama
School of Social Sciences 4th grade,
Waseda University

Mr. Toshiki Matsui
Faculty of Business and commerce 1st grade,
Keio University

Ms. Risa Aburai
Faculty of Law 2nd grade,
Meiji Gakuin University

11.17（Thu）

New Reporting: Opening Up Television Stations

10:30 ▼ 11:20

Moderator
Ms. Keiko Murakami
Principal Researcher,
Media Research & Studies Division,
Broadcasting Culture Research Institute,
NHK

Mr. Paul Hiromichi Shizume
Producer, Abema TV news channel
TV Asahi Corporation

Panelist
Mr. Toshihiro Shimizu
Chief Producer (HOUDOUKYOKU)
Contents Design Department
Fuji Television Network, Inc.

Mr. Kazuhiko Yamashita
Chief Producer,
Internet News Reporting Department,
NHK

Spotlight on the Japanese Sports Scene with New Media Strategies

11:40 ▼ 12:30

Moderator
Mr. Shigeo Araki
President & CEO,
Sports Marketing Laboratory Inc.

Mr. Noriaki Kamei
Manager, Program Department,
J SPORTS Corporation

Panelist
Mr. Ryoichi Ozeki
Senior Producer,
Data Stadium Inc.

Mr. Hisaya Suga
President,
PRESENTCAST INC.

Video Delivery of Key Stations in 2016

13:00 ▼ 14:30

Moderator
Mr. Mikio Tsukamoto
Media Strategist,
Wise Media, INC.

Mr. Masahito Ota
SENIOR DIRECTOR,
CYBER BUSINESS STRATEGY
NIPPON TELEVISION NETWORK CORPORATION

Panelist
Mr. Hiroshi Ohba
Co-director, digital business center,
TV Asahi Corporation

Mr. Yasuyuki Tazawa
Director, Content Distribution Business
TOKYO BROADCASTING SYSTEM TELEVISION,INC.

Mr. Shinjiro Ninagawa
Director,
TV TOKYO Communications Corporation

Mr. Kazuo Nomura
Duputy Director, Content Creation and
Distribution Department
Fuji Television Network,inc.

Program Multi-use Viewed from the Rights Holders

15:00 ▼ 15:50

Moderator
Mr. Takehiko Irie
Managing Director,
SHIN-EI ANIMATION co., Ltd.

Panelist
Mr. Hidenori Nakai
Senior Executive Director
Japan Association of Music Enterprises
(JAME)

Mr. Yuji Arakawa
COO,
NexTone Inc.

Considering the Future of Television from the Local

16:10 ▼ 17:00

Moderator
Ms. Keiko Murakami
Principal Researcher,
Media Research & Studies Division,
Broadcasting Culture Research Institute,
NHK

Panelist
Mr. Jiro Nishida
Manager, Program Planning Div.,
YOMIURI TELECASTING CORPORATION

Mr. Akihiro Nishino

Mr. Hiroshi Saito
Manager, Strategy Planning Division
Mainichi Broadcasting System, Inc.

Ms. Yukiko Chinone
Manager, Digital Contents Develop Div.,
Tokyo Metropolitan Television Broadcasting Corp.

11.18（Fri）

New Development of Multi-channel Broadcasting Operators

10:30 ▼ 11:20

Moderator
Mr. Yasuji Eguchi
Yasuji Eguchi Office LLC.

Mr. Jun Ishizawa
Broadcast Technology & Operations
FOX NETWORKS GROUP JAPAN

Panelist
Mr. Takayuki kimura
Broadcasting Business Dept.,
Kids Station Inc.

Mr. Hisashi Fujii
Broadcast Operations & Technology
Sony Pictures Entertainment(Japan)Inc.

Live Streaming with Users Playing the Leading Role

11:40 ▼ 12:30

Moderator
Mr. Shigeki Matsuura
Director of Media Communications,
SmartNews, Inc.

Mr. Daisuke Sasaki
Exective Officer,
LINE Corporation

Panelist
Mr. Koji Ayao
Strategic Partnerships Manager,
Facebook Japan

Mr. Kazuhiro Misawa
Senior Manager,
Content Partnerships Entertainment,
Twitter Japan K.K.

Strategy for Original Content on Delivery Platforms

13:00 ▼ 14:30

Moderator
Mr. Munechika Nishida
Freelance Journalist

Panelist
Ms. Rieko Muramoto
Director Digital Business,
avex digital inc.

Mr. Kazufumi Nagasawa
CCO,
HJ Holdings LLC

Mr. Shuzo John Shiota
President and CEO,
Polygon Pictures Inc.

Mr. Takuya Seki
KYODO TELEVISION LTD.

Taking on the Challenge of Redefining Television That Is Moving Forward

15:00 ▼ 15:50

Moderator
Mr. Toshio Kuramata
Senior Manager, Digital Content Center
NHK Japan Broadcasting Corporation

Mr. Takeshi Shimokawa
Digital Media Services Content Creation
and Distribution Dept.
FUJI TELEVISION NETWORK,INC.

Panelist
Mr. Ikko Kambara
Program Director,
Special Content Development Center,
General Broadcasting Administration
NHK Japan Broadcasting Corporation

Mr. Ryo Kishi
Planner, HAROiD Inc.

Will the Future of Television Be Interesting? Future Prospects for Video Media

16:10 ▼ 17:00

Moderator
Mr. Osamu Sakai
Media Consultant

Mr. Masaki Yoshida
President, Yoshidamasaki inc.

Panelist
Ms. Keiko Umeda
Media Editorial Div.,
Nikkan Sports News.

Mr. Atsuo Fujimura
Senior Vice President of
Media Business Development,
SmartNews, Inc.

Exhibitors Presentations

▶ Venue: Presentation corner with in INTER BEE CONNECTED, Exhibition Hall 7

	Time	Presentation
11.16 (Wed)	13:00 ▼ 13:20	Example of the latest video use with Microsoft Azure — EVC Inc.
	13:30 ▼ 13:50	CHARiN - Loyalty point program with TV — HAROiD Inc.
	15:00 ▼ 15:20	"TAMARU!" a Loyalty Program by FujiTV — Fuji Television Network, Inc.
	15:30 ▼ 15:50	Maruken2020 — Multiscreen Broadcasting Study Group
	16:30 ▼ 16:50	Server side dynamic advertisement insertion service for live/linear distribution — ITOCHU Cable Systems Corporation
11.17 (Thu)	12:00 ▼ 12:20	The fastest TV linkage contents at low cost — HAROiD Inc.
	13:30 ▼ 13:50	"TAMARU!" a Loyalty Program by FujiTV — Fuji Television Network, Inc.
	14:00 ▼ 14:20	Maruken2020 — Multiscreen Broadcasting Study Group
	15:00 ▼ 15:20	Server side dynamic advertisement insertion service for live/linear distribution — ITOCHU Cable Systems Corporation
	16:30 ▼ 16:50	Example of the latest video use with Microsoft Azure — EVC Inc.
11.18 (Fri)	12:00 ▼ 12:20	"TAMARU!" a Loyalty Program by FujiTV — Fuji Television Network, Inc.
	13:00 ▼ 13:20	Maruken2020 — Multiscreen Broadcasting Study Group
	13:30 ▼ 13:50	Server side dynamic advertisement insertion service for live/linear distribution — ITOCHU Cable Systems Corporation
	15:00 ▼ 15:20	Example of the latest video use with Microsoft Azure — EVC Inc.
	15:30 ▼ 15:50	Change TV to Solution media — HAROiD Inc.

New Business Models Delivered from the Frontlines of Broadcasting and Communication.

The special Inter BEE event known as INTER BEE CON-NECTED was held once again this year. This third occasion included the familiar and popular segment "Video Delivery of Key Stations", and featured a full range of sessions that addressed current topics. It also included diverse content such as a keynote speech by an important figure from the United Kingdom's Perform Group, on a visit to Japan. The event venue was equipped with an expanded 200-person capacity stage and seating area, where discussions were held by companies with booths on display in this area, for a three-day event rich with fascinating sessions.

2:20 PM-3:50 PM, Wednesday, November 16th

"How Will New Viewing Measurements Change Television?"
A heated discussion by three media research companies about the latest trends in viewing measurements.

The second session held on the first day was "How Will New Viewing Measurements Change Television?" Television viewing is no longer limited to watching TV programs in real-time, but has expanded in many different ways to include watching recorded programs and viewing content over the Internet. A study on time-shift viewer ratings was started this past October, but it is only one step in a field where diverse players are undertaking a variety of projects to carry out viewing measurements. Panelists from three such major companies were invited to speak in this session: Mr. Makoto Niitsuma, Director of Video Research Ltd.'s Solution Business Development Division, Mr. Yoshiya Nakamura, Executive Analyst at The Nielsen Company Japan, and Mr. Takahiro Nagasaki, Corporate Officer of Intage, Inc. The role of moderator was taken up by media consultant Mr. Osamu Sakai.

First of all, Mr. Sakai gave a brief description of the conditions surrounding the topic of television viewing measurements, followed by individual short presentations by each of the panelists.

Mr. Niitsuma provided an explanation of the new viewing measurements used by Video Research. A project to measure "total viewer ratings" including time-shift viewer ratings was started from October, and according to Mr. Niitsuma, time-shift ratings are particularly high for drama programs and among the segment of young people.

Next, Mr. Nakamura gave a presentation on the activities for total audience measurement carried out in the United States. This measurement, scheduled to be published from March 2017, is composed of four elements: television program viewer ratings, television advertisement viewer ratings, digital content viewer ratings, and digital advertisement viewer ratings.

Mr. Nagasaki began his speech by introducing a portion of the industry events held in the United States. The discussion heated up on the subject of research methods, with the issue of using a panel method or census method for research highlighted as a key point. It was noted that at Intage, single-source panels are used for panel-based research, while smart television viewer log data is applied for census-based research. By using a single-source panel (i-SSP), the general media activity of a single person on a single day can be studied.

Although the broadcasting industry has advanced to this point based on real-time viewer ratings for households, the advent of a more complex age is bringing with it a need to utilize more diverse types of data. This session gave a powerful impression that we have entered an age in which media companies must learn and master the skills of analysis in order to enhance their own values.

11:00 AM-12:30 PM, Wednesday, November 16th

"Diversifying Video Viewing Styles, Realities and Television"
Bold announcements on current knowledge from the media research teams of Dentsu and Hakuhodo!

The initial session on the first day featured announcements from Dentsu Innovation Institute and the Institute of Media Environment from Hakuhodo DY Media Partners on the results of their research studies. Its content was full of the latest information from the frontlines of media research conducted by these two major players, and was highly valuable in learning about the field.

The session was presented and skillfully directed by Mr. Ritsuya Oku of Dentsu Innovation Institute acting as moderator.

To begin, Mr. Masataka Yoshikawa, General Manager of Hakuhodo DY Media Partners' Institute of Media Environment, spoke about the rapid progress of the "mobile shift" that has been occurring over the past few years, based on the results of a research study conducted in 2016 by his organization. Next, Mr. Akira Miwa, Director of Dentsu Innovation Institute's Media Innovation Research Department, presented a diagram showing the course by which television content has been replaced by other forms of media. Up until some time ago, television broadcasts had a singular responsibility for all elements of video content, but it has gradually relinquished those roles to other forms of media and devices.

Ms. Mariko Morishita, Chief Researcher at Dentsu Innovation Institute, announced the results of a study on the connection of televisions to the Internet. When screening was conducted on a total of 10,000 sample respondents, 8,853 indicated that they owned televisions, among which 8,296 stated that they were in current use. Furthermore, 2,107 stated that their televisions were connected to the Internet, and of them 1,037 replied that those connections were used for watching video content.

Ms. Kaoru Kato, Manager at Hakuhodo DY Media Partners, spoke about a study carried out on the true status of media content viewing, in which a video recording of the actual media contact of two young people was made. This real-life video was vividly displayed on screen and allowed the audience to clearly see the actual situations of its subjects communicating via methods such as Twitter or LINE after getting into bed to go to sleep, while also restlessly watching bits and pieces of videos.

Dentsu Innovation Institute and the Institute of Media Environment are two great forces in carrying out media research that is extremely useful not only to advertising but to all forms of industry. The joint presentation delivered by these two teams, which normally have a competitive corporate relationship, was unique and highly valuable in many ways.

10:30 AM-11:20 AM, Thursday, November 17th

"New Reporting: Opening Up Television Stations"
NHK, AbemaTV, and Houdoukyoku speak fervently about the state of new reporting using the Internet

To start the second day, a discussion was held on the utilization of the Internet for television reporting. Mr. Kazuhiko Yamashita of NHK's Internet News Reporting Department, Mr. Paul Hiromichi Shizume, responsible for the Abema TV news channel at TV Asahi, and Mr. Toshihiro Shimizu, representing Fuji Television's Internet media source Houdoukyoku, took the stage as panelists. An enthusiastic discussion was held under the skillful moderation of Ms. Keiko Murakami from NHK's Broadcasting Culture Research Institute.

As an entry point to the discussion, Ms. Murakami explained about the current status of rivalry between the leaders in news media on the Internet. She used a matrix composed of four quadrants indicating mass media, Internet media, text media, and video media, classifying and visually representing each media type. This organized presentation made the chaotic state of media easy to understand not only for broadcasting operators, but for anyone widely involved with media.

Mr. Yamashita of NHK explained about the methods of conveying information on disasters or other situations from the perspective of public media, by applying Twitter as well as NHK's "News and Disaster Response App." While this application can be valuable for early communication on the occurrence of disasters by using push notifications, Twitter can transmit comprehensive information on continually-changing conditions. It can be clearly seen that these functions, including simultaneous news content delivery, are effectively answering the needs of the public during emergency conditions.

Mr. Shizume of TV Asahi described the overall mechanisms of AbemaTV which allow it to distribute several dozen channels over the Internet similarly to broadcasting, and gave a presentation on its core function AbemaNews and its spotlighted program AbemaPrime. This program's slogan is "Unbound by the restrictions of society", which is reflected in its various challenges made to address themes that cannot be handled under the limitations put on terrestrial broadcasts, and to use techniques with a high level of difficulty.

Mr. Shimizu of Houdoukyoku spoke about his company's most current activities. Houdoukyoku began service in April 2015 in the form of broadcasting over the Internet, and underwent an expansive redesign on October 24 of this year. For this purpose, it conducted research on the latest trends of reporting media in the United States. Houdoukyoku in its new form has changed its policies from streaming-only to on-demand news streams, and is also distributing content in the form of text and images rather than limiting itself only to video content.

The theme of "reporting" which was covered for the first time this year is one of the most prominent fields of interest today, as well as a fundamental part of the value of media to society. We will be sure to keep a close watch on the further developments of each of these services.

"Spotlight on the Japanese Sports Scene with New Media Strategies"

Will the value of sports content be enhanced by digital application? A discussion based on current examples.

A flat-rate video delivery service exclusively for sports programs debuted this year, suddenly shedding a spotlight on sports in the field of video media. In this session, a discussion was held on the relationships that exist between sports and media. The moderator was Sports Marketing Laboratory CEO Mr. Shigeo Araki, and the panelists consisted of J Sports Organization Department Manager Mr. Noriaki Kamei, Data Stadium's Mr. Ryoichi Ozeki, and Presentcast President Mr. Hisaya Suga, who engaged in an active exchange of their views and opinions.

Moderator Mr. Araki first explained the situation surrounding sports and media. The period from 2016 to 2021 is being referred to as the "Golden Years of Sports", not only because of the Olympics, but also because large sporting events will be held every year during that time, with high expectations for expansion of the sports market. While sports and broadcasting have always been closely connected, from here on there will be a particular focus placed on delivering sports content over the Internet.

Next, Mr. Suga gave a presentation on Presentcast's video delivery of sports programs. "gorin.jp" was launched in 2008 for Internet-based video delivery to support commercial Olympic starting with the Beijing Games. Its services include the distribution of data and news articles as well as highlight videos and live streaming. This year in particular, it provided 2300 hours of live streaming, roughly 10 times that of terrestrial broadcasts.

Mr. Kamei then provided a presentation on the status of J Sports. The sports industry is seeing greater activity due to the expansion of OTT operators, and J Sports is considering this an important opportunity to create new values together. It is undertaking various projects including new forms of sports program organization, CRM which includes digital elements, and content policies able to convey new and appealing facets of sports.

Mr. Ozeki explained about his own company's businesses for data utilization, emphasized as extremely important even in the two previous presentations. Data Stadium began its activities with "pitch-by-pitch news bulletins" for baseball and is a true dedicated sports data provider. Mr. Ozeki presented some components of his company's latest technology which make it possible to follow the paths of pitches in baseball using image recognition technology, and to record the status of soccer matches in great detail by tracking the movement of players.

"Program Multi-use Viewed from the Rights Holders"

The first discussion from the perspective of rights holders on rights processing suited to an age of integrated broadcasts and telecommunication

As the integration of broadcasting and telecommunication continues to advance, one issue that cannot be overlooked is the problem of rights processing. Up to this point, however, it has largely not been subject to open discussion. In this session, panelists Mr. Hidenori Nakai, Senior Executive Director of the Japan Association of Music Enterprises (JAME) and Mr. Yuji Arakawa, COO of NexTone, were joined by moderator Mr. Takehiko Irie, Managing Director of Shin-ei Animation, to speak about rights management from the viewpoint of rights holders in our new age. It was a valuable opportunity to listen closely to opinions and views that are not often the subject of direct discussion.

Moderator Mr. Irie began by explaining the positioning of this session. He then spoke about the views held by the side of content-holders, drawing on his experiences as former Copyright Department Director at TV Asahi and current Managing Director of Shin-ei Animation. His opinion was that although there are upcoming expectations for increased viewing opportunities, there will also be a need to think toward the future with a somewhat strategic mindset and to carefully manage exposure.

He was followed by Mr. Nakai, who worked for a long period as a Manager at Yoshimoto Kogyo before becoming a Director of JAME, speaking about his thoughts based on his own experiences. When a new song is released in the music industry, it is put into public exposure as much as possible to spur CD sales, but with performing arts such as *manzai* and *rakugo*, material will lose its appeal if overexposed and so cannot be presented without regulation. It is precisely because of the need to regulate exposure depending on content that JAME's stance is to give the highest importance to the rights of license.

On the other hand, Mr. Arakawa representing NexTone, a new music copyright management business, explained about the complexity of music copyrights. Among performing rights, recording rights, and publishing rights, NexTone is not involved in the management of performing rights. As an example of the situation in this field, if this year's hit song "*Zen-Zen-Zense*" by RADWIMPS is used on a broadcast program, it will fall under the responsibility of JASRAC, but if that program is delivered over the Internet it will fall under the responsibility of NexTone. Mr. Arakawa noted that although it would likely be more convenient for the user of the music to be able to make a single comprehensive application for its use, measures to support this have not yet been established.

Finally, Mr. Irie stated that the question of copyrights is not one that will have any single winner, and concluded with his wish for all involved to work together and move forward. This session was a stage for a highly meaningful discussion among rights holders and served to confirm each of their positive and optimistic outlooks for the future.

"Considering the Future of Television from the Local"

Akihiro Nishino from comedy duo "King Kong" speaks about new ways of building relationships with fans?!

With Ms. Keiko Murakami from NHK's Broadcasting Culture Research Institute acting as moderator, members Mr. Hiroshi Saito, a central figure in the Multiscreen Broadcasting Study Group (nicknamed "Maruken") at Mainichi Broadcasting System, Ms. Yukiko Chinone, involved in experiments on simultaneous broadcasting delivery at Tokyo Metropolitan Television Broadcasting, and Mr. Jiro Nishida from Yomiuri Telecasting Corporation, an operator of the cross-stations organization, "*Terebi no Mirai wo Kangaeru Kai*", were joined inexplicably by Mr. Akihiro Nishino of comedy duo "*King Kong*" to hold a most intriguing discussion.

This segment was being delivered live as a special event on LINE LIVE by Mr. Nishida and Mr. Nishino. It opened with Ms. Murakami introducing Mr. Saito and Ms. Chinone, giving a brief presentation explaining Mr. Saito's affiliation with Maruken and Ms. Chinone's involvement with simultaneous broadcasting delivery through the MX Casting application. This was followed by Mr. Nishida and Mr. Nishino, who had been filming the event site, making their appearance and taking their seats. The LINE LIVE images of the event were also shown on screen, giving a somewhat unusual look to the discussion.

Mr. Nishida spoke about the connection between "*Terebi no Mirai wo Kangaeru Kai*" which he organized and Mr. Nishino. He explained that Mr. Nishino's "*Pineapple Candy Project*" which had been started only on a casual basis, expanded through the activities of the "*Kangaeru Kai*" and its participation by directors of individual local stations, and asked if perhaps it was due time for the project to surpass the boundaries of television stations and become a jointly-coordinated project.

Ms. Murakami then introduced and described a diagram indicating the proportion of in-house production by local stations. At a certain Osaka-based station, in-house production per 10,000 minutes of total broadcasting time amounted to 300 minutes in the Internet-based category and 2,500 minutes in the local category, with this becoming drastically lower for smaller stations.

The sense of the danger faced by local stations grows even more if issues such as simultaneous television delivery on the Internet, as reported by Asahi Shimbun in October, are considered. Mr. Saito then described a new project by Maruken intended to address this issue. He explained that a mechanism currently in development would allow viewers to watch programs being delivered simultaneously with broadcasts on the upper part of a smartphone screen, while various types of information or advertisements would be transmitted as necessary by television stations on the lower part of the screen.

After examining examples like this, Mr. Nishino was asked to offer his suggestions to local stations. From his own experiences in crowdfunding to produce a picture book, he stated that if the assembled cooperation of several thousand fans can be obtained, it is entirely possible to recover expenses. He proposed that for broadcasting as well, it would be beneficial to have customers participate in projects from their initial stages.

In response to Mr. Nishino's suggestion, Ms. Chinone stated that MX Casting can not only provide simultaneous video delivery, but also can transmit programs across the country independently by live distribution. When she proposed that Mr. Nishino give this an attempt, he responded that he also would like to work together to build television content from the ground up.

With the unexpected inclusion of LINE LIVE elements, this session became the scene of many highly evocative and interesting statements. Clues to the future of local stations may be revealed in times to come by such ways of thinking that go beyond traditional scenarios.

"New Development of Multi-channel Broadcasting Operators"

Discussions on proposals in search of new goals for multi-channel broadcasting as it approaches a time of reform

This was a discussion on the current state of operators deploying channels through CS and CATV, and the new endeavors that they will be moving toward in the future. The panelists here consisted of Mr. Jun Ishizawa of FOX Network, Mr. Takayuki Kimura of Kids Station, and Mr. Hisashi Fujii who is responsible for channels such as Animax and AXN at Sony Pictures. The role of moderator was played by Mr. Yasuji Eguchi of the Yasuji Eguchi Office.

First of all, Mr. Eguchi explained the main ideas of this session. Multi-channel broadcasting is now approaching the greatest time of reform since its appearance, and initiatives to examine the desired state of new paid multi-channel broadcasting have been carried out under the framework of the IPDC Forum. This session's content included explanations of the ideas that have emerged as a result of those initiatives. Mr. Eguchi also noted that the views to be expressed were only the individual opinions of the panelists, and did not represent the opinions of their respective affiliated companies.

Mr. Ishizawa began by stating that rather than seeing a desolate situation for the entertainment industry, he believes that the increase in the number of screens for entertainment is instead a highly promising opportunity. In response, Mr. Fujii noted the concept of "Curation TV". This is a system by which the enormous volume of content transmitted by multi-channel broadcasts would be separated into programming "modules", which could then be rearranged into structures recommended for customers according to their individual preferences and attributes. It is a concept by which channels would be truly "curated" to offer organized programming that would be more appealing to viewers than stand-alone broadcasts.

Next, Mr. Kimura explained another idea. He suggested that even if broadcasting operators were, for example, to face a declining trend, it could be possible to discover roles for broadcasting to play by coordinating with the business types that have a "main" position at the time. He then described a plan for a "TV Code Platform" where broadcast operators would issue codes to prove that certain programs were watched by viewers. Since the video game industry is currently flourishing, one possible application would be to coordinate with video game businesses to issue special items for use in games to people who have watched specific programs. It is conceivable that the use of such mechanisms could even bring about an increase the number of channel subscribers.

"Live Streaming with Users Playing the Leading Role"
Clarification of current trends, and discussions by operators responsible for the current high-focus topic of live video delivery.

The growth of SNS has broken down the traditional relationships between "creators" and "recipients" of media, and new types of relationships are being formed. Among these, even in the field of video delivery services, there are more and more services which allow operation by users themselves appearing and becoming the focus of attention. Mr. Daisuke Sasaki of LINE, Mr. Kazuhiro Misawa of Twitter, and Mr. Koji Ayao of Facebook participated as panelists representing operators of services that allow users to distribute live video content themselves, in a discussion moderated by Mr. Shigeki Matsuura of SmartNews.

LINE's Mr. Sasaki spoke about LINE LIVE, which was started in December of last year. Although the function of video delivery by users was only launched in August, it is already being applied and utilized by many users. Segments using this function show a high percentage of females at 57% and an overwhelming majority of young users, with 47% being 24 years of age or younger. It also seems that nearly all videos transmitted by users are taken with the screen in a vertical orientation.

Mr. Misawa began by explaining the transitions occurring among Twitter users. The number of monthly users in September 2016 was 40 million, which has shown remarkable growth even in recent months. In March 2015, Twitter acquired the live delivery application Periscope, making it possible for live video delivery to be directly included in Twitter timelines. Support is also being provided for its use in other forms of media.

Mr. Ayao then gave an overview of Facebook, which has 1.79 billion users per month across the world, 24 million of whom are in Japan.

The number of users of Facebook Live is growing rapidly, with trends toward viewing for extended periods. While it is frequently applied by corporations, a staggeringly large proportion of its use is for video delivery by users themselves.

Although the main topic of the discussion was video delivery by users, the panelists also spoke about the current state of video delivery by corporations and other entities in an official capacity. The Kyoto International Film and Art Festival used Twitter's Periscope and was viewed by 70,000 people, with a large number of people watching from overseas. There are also many cases where Facebook Live is used by journalists to deliver content from on-site locations. Furthermore, a "posting tool" was added to it in May, making it possible for content to be delivered from a camera line. LINE LIVE has been frequently used for video delivery by corporations or organizations who have official LINE accounts. Suntory used it to deliver the content of its Malts baseball team match, which was viewed by 3 million people. It is also gaining recognition in the movie industry, as it was used by Makoto Shinkai, director of the movie "*Kimi no Na wa.*" to give a message of thanks for making the movie a hit and to interact with its fans.

Live delivery is one of the most prominent topics in the state of media for 2016. Although it is still at the trial-and-error stage, it is likely that its progress and evolution will be achieved through the cultivation of its potential by users themselves. As uncertain as its future is, it only makes it that much more exciting and full of promise.

"Strategy for Original Content on Delivery Platforms"
Are we approaching an environment that favors producers of high-quality work?

This was a discussion on the topic of producing original content on video delivery platforms, from the respective viewpoints of platforms and producers. With IT journalist Mr. Munechika Nishida as moderator, the platform side was represented by Ms. Rieko Muramoto, responsible for dTV and other services at avex digital, together with Mr. Kazufumi Nagasawa of HJ Holdings responsible for the direction of hulu content, while the producer side was represented by Mr. Shuzo John Shiota, President and CEO of Polygon Pictures, together with Mr. Takuya Seki of Kyodo Television. A fascinating discussion was held by these members, who are rarely assembled together for a single occasion.

Moderator Mr. Nishida first spoke on the significance of original content, stating that there is a need for differentiation to the point that the market is energized and the number of players in the field increases. He explained that video delivery services will first compete with each other in terms of quantity, but the addition of original content will then become a necessity.

Mr. Nagasawa has previously worked on original content including "*Fujiko*", which won an award after being distributed on hulu last year. As summarized by Mr. Nagasawa, there are three directions taken for original content on hulu: "1) content that assumes coordination with Nippon TV or Internet stations, 2) content created in collaboration with newly-produced theatrical movies, and 3) content that could not be produced previously by existing media."

Ms. Muramoto has produced original works of various types at dTV since 2009. She has worked on many methods of project deployment, such as delivering spin-off works as movie tie-ins, or on the other hand theatrically releasing works that had been previously only been delivered as video content,

and has also succeeded at delivering videos of live music concerts. This year, she will attempt to provide VR images to enhance the feeling of a live experience for viewers of music content.

Mr. Shiota explained that Polygon Pictures, a trailblazer in CG animation in Japan, has established connections with Netflix due to its work focusing on production in the American market, and since it has become technologically possible to produce CG anime with a cel-animation look even in the Japan market, it has begun production of new works as well as full-scale relationships with Netflix with the distribution rights of those works.

Mr. Seki made a presentation on the production of original content for delivery by Kyodo Television. Although it is actually the same company as the Fuji Media Group, this company has achieved remarkable expansion in its volume of original content for delivery in the past few years. When summarized on a slide, the quantity and range of those works was astounding.

While it appears that a trial-and-error approach will still be required for some time, the tone of this discussion was highly optimistic with an overall sense of wanting to explore what the future will hold together.

"Taking on the Challenge of Redefining Television that is Moving Forward"
A wealth of sharp opinions and an enthusiastic, deep discussion!

Recent developments allowing individual television stations to deliver programs over the Internet have suddenly made the future state of television clearer and more detailed than ever before. However, this also raises the question of whether the future of television is limited only to video delivery. Perhaps we should instead now be searching for the next form for television to take even further ahead? The principal topic of this session was a discussion on undertaking challenges that look toward the forefront of television. Panelists Mr. Takeshi Shimokawa of Fuji Television's Digital Media Services Content Creation and Distribution Department, Mr. Ikko Kambara of NHK's Special Content Development Center, and Mr. Ryo Kishi, Planner at HAROiD currently transferred from Nippon Television, were joined by Mr. Toshio Kuramata from NHK's Digital Content Center as moderator.

Mr. Kuramata first explained the main idea of the session. He presented NHK's simultaneous retransmission application, which would be launched just from the following week, and noted the progress achieved in program delivery, stating "I believe that the question of how the future will develop through the connection of television and the Internet is truly a 'redefinition' of television."

The panelists then spoke about their own activities. Mr. Shimokawa introduced his background of working on plans to link programs with digital elements, showing "#High_Paul", which deploys 22 pieces of content within a 90-minute program by adjusting their relative length, as a current example. Mr. Kambara is, after his involvement with various programs in the Production Department of NHK, now currently producing an NHK Special citizen's debate program, "*Watashitachi no Kore kara Our Future*". Mr. Kishi was transferred from Nippon TV to HAROiD, with a constant desire to create events that use television as performance devices, and is currently planning a viewer-participation commercial called "*Zettai Osu na yo*" for KIRIN Hyoketsu.

When Mr. Kuramata posed the question "What do you want to accomplish through the connection of television with the Internet?", Mr. Kishi gave the intriguing answer of "I want to change the positioning of television, and I believe that television can play a leading role." Mr. Kishi's ideas have a consistent focus on providing "experiences" that including television, the web, and events.

Finally, Mr. Kuramata asked the difficult question "If you were to redefine television based on the idea of 'Is this something that is considered television?', how would you do so?" Mr. Shimokawa answered "From here on, I think the full range of elements including catch-up delivery and simulcasting will all be considered 'television'. In the United Kingdom, people already think of 'television' to include real-time viewing, viewing on the Internet, and catch-up viewing." Mr. Kambara replied "I think that television is like a live street performance. When people go to see music concerts they have a strong intention and goal in mind, but street performances are things that people just happen to encounter. I believe it is very important to both continue these high-energy, passionate street performances and to be able to convey their energy again and again." Mr. Kishi responded "Television aims to be easy to understand by 100 people out of every 100. On the web, however, it is perfectly fine to also have content that is simply astounding to only 1 person of 100. And actually, I think it is also conceivable for television to be thought of in the same way." Each of the three panelists gave fascinating and compelling views on this subject.

"Will the Future of Television be Interesting? Future Prospects for Video Media"
The present and future of television, as seen by three controversialists.

Closing out the rich, in-depth sessions of the three-day event, this session was one where three controversialists were invited to speak about their current situations and future plans. They consisted of Mr. Masaki Yoshida, a current all-around producer of content who has worked on several hit programs at Fuji Television, Ms. Keiko Umeda, who publishes the "*Ume Channel*" series of columns while busily engaged with daily on-site work as a Nikkan Sports reporter, and Mr. Atsuo Fujimura, an executive officer at SmartNews who provides information on advanced media theory via a personal blog. These three panelists were moderated by media consultant Mr. Osamu Sakai.

The session began with "the TV dramas are remarkable now" as a subject everyone could easily address. Ms. Umeda, who often gives comments on drama programs, stated that this season is abundant with hit shows including "*NigeHaji*", "*Koetsu Girl*", and "*Kuroi Junin no Onna*". Mr. Yoshida commented that the "*Koi Dance*" from "*NigeHaji*" and the fashions of "*Koetsu*" are being well received by Internet users and are likely to spread in popularity.

Mr. Sakai then asked Mr. Yoshida's opinion on the time-shift viewer ratings

investigated by Video Research Ltd., to which Mr. Yoshida jokingly replied "I watch programs in real time as much as possible, since I have my pride as a first-rate viewer." Ms. Umeda, however, proudly answered "I watch my recorded programs after coming home late at night and getting settled." On the other hand, Mr. Fujimura said "I follow the current topics of '*NigeHaji*' on social sites but when I look at their link destinations, they often turn out to be YouTube", and suggested that both creating new topics on social sites and thinking about their future plans are important.

In conclusion, the panelists were asked to comment on what they think the state of television will be in the year 2020, and how they wish it to be. Mr. Fujimura stated "At the time of the Tokyo Olympics, 'dispersed-format' video media will likely become the mainstream. It will be necessary to cover each event on small devices separately from traditional broadcasting methods. We don't have much time to waste." Ms. Umeda replied "Reports on television stations today show that they are shrinking away. If they have confidence, however, they should be able to continue to be the most powerful form of media even in 2020. This is what I tell even to myself since I'm involved with newspapers, but I would like everyone to have great confidence in themselves." Mr. Yoshida noted "If we think of all television stations as a single 'family', and do everything we can to work together, I believe that television can be revived to greatness."

Hall 8 | Hall 7 | Hall 6 | Hall 5 | Hall 4 | Hall 3 | Hall 2 | Hall 1

International Conference Hall

Event Hall

INTER BEE CREATIVE

▶Cooperation: DigiCon6 ASIA, Japan Post Production Association
▶Media partner: GENKOSHA "COMMERCIAL PHOTO"

We have renamed the Asia Contents Forum we held last year to INTER BEE CREATIVE to deliver an even more powerful event to everyone. We delivered to you the latest information and excitement by inviting top creators in the eyes of the world beyond Japan and Asia. For example, there were information on skills/expertise relating to video content production and production tool application cases.

Mr. Takafumi Yuki
INTER BEE CREATVE Forum Director

✖ INTER BEE CREATIVE Keynote Speech

▶Venue: International Conference Room, 2F International Conference Hall, Makuhari Messe

11.18 (Fri)	13:00 ▼ 14:30	INTER BEE CREATIVE "Asia Super Session" **Underlying Strength of MADE IN JAPAN**	Mr. Shinji Higuchi Movie director

✖ CREATIVE SESSIONS

▶Venue : Exhibition Hall 8

11.16(Wed)		11.17(Thu)		11.18(Fri)	
11:30 ▼ 12:15	**What is the next breakthrough in Media and Entertainment workflow?** Mr. Everett Ward — Principal Solutions Architect, Media & Entertainment Solutions QUANTUM STORAGE JAPAN CORPORATION / Mr. Kenichi Saito — Presales Consultant, QUANTUM STORAGE JAPAN CORPORATION	10:30 ▼ 11:15	**From a 4K Movie Shooting Site** Mr. Katsumi Sakaguchi Movie director	11:30 ▼ 12:15	**MPC Presents: Crafting a photoreal jungle for Disney's The Jungle Book -Part 2** Mr. Adam Valdez — VFX Supervisor, Moving Picture Company (MPC) / Ms. Audrey Ferrara — Environment Supervisor, Moving Picture Company (MPC)
13:00 ▼ 13:45	**Adobe Creative Cloud Video Production Tools Special Session : Editing workflow for "Shin-Godzilla"** Mr. Atsuki Sato VFX Superviser, TMA1	11:30 ▼ 12:15	**MPC Presents: Crafting a photoreal jungle for Disney's The Jungle Book -Part 1** Mr. Adam Valdez — VFX Supervisor, Moving Picture Company (MPC) / Ms. Audrey Ferrara — Environment Supervisor, Moving Picture Company (MPC)	13:00 ▼ 13:45	**Adobe Creative Cloud Video Production Tools** Mr. Jason Levine Principal WorldWide Evangelist, Adobe Systems
14:00 ▼ 14:45	**Beyond the Standard:** Taking on the Challenge of Video Production beyond Standards Dome Video, Spheroid Video, Multi-screens and VR Mr. Kazuhiro Imamura — Research & Development Div., OMNIBUS JAPAN INC. / Mr. Shohei Yamaguchi — Technical Div., OMNIBUS JAPAN INC. / Mr. Shinichi Yamamoto — Creative Director, OMNIBUS JAPAN INC.	13:00 ▼ 13:45	**Adobe Creative Cloud Video Production Tools** Mr. Jason Levine Principal WorldWide Evangelist, Adobe Systems	14:00 ▼ 14:45	**Backstage of Production on the Short 8K/HDR Film LUNA** Mr. Haruyuki Moroishi — Producer, ROBOT COMMUNICATIONS INC. / Mr. Kazuma Ikeda — Director / Mr. Koichi Tonozuka — Producer, IMAGICA Corp. / Mr. Yumeto Kitayama — Colorist, IMAGICA Corp. / Mr. Yasushi Kawamoto — Chief editor, COMMERCIAL PHOTO (Moderator)
		14:00 ▼ 14:45	**Challenge to High Fidelity HDR Video** Colorist pursues the "Reality Images" Mr. Makoto Imatsuka Postproductions, Colorist, Q-TEC,INC.		
15:00 ▼ 15:45	**Challenge to the Advanced technology [4K HDR,and …]** Mr. Kazuya Ishiguro — Technology Group, Panasonic Visuals Co., Ltd. / Mr. Yasuhiro Sato — Technology Group, Panasonic Visuals Co., Ltd.	15:00 ▼ 15:45	**General-purpose Archive & Backup to the best for postproduction** Mr. Yosuke Kuboe Systems Manager, L'ESPACE VISION CO.,LTD	15:00 ▼ 15:45	**Site of Professional Drone Aerial Photography** Mr. Kobayashi (Lecturer) — Airvision, Studioaman / Mr. Yasushi Kawamoto (Moderator) — Chief editor, COMMERCIAL PHOTO
16:00 ▼ 16:45	**Taking on the Challenge of 4K HDR!** From the Morobito: Guardian of the Spirit Season 2 Production Site Mr. Kosaku Maeda — Technical Operations & Engineering Center Technical Planning & Management Division Broadcast Engineering Department, NHK / Mr. Yuta Maruyama — Program Engineering Division Engineering Administration Department NHK	16:00 ▼ 16:45	**Concept of Hybrid Special Effects in the Digital Age** Mr. Katsuro Onoue Special effects director	16:00 ▼ 16:45	**Asia Directors Super Session** Mr. Shinji Higuchi — Movie director / Mr. Jack Neo — Movie director (Singapore)

2:00PM-2:45PM, Friday, November 18th

Backstage of Production on the Short 8K/HDR Film "LUNA"
- New creative territory -

"LUNA" is video content created jointly by robots and IMAGICA. While even 4K/HDR is still in its very early stages, this is a very forward-thinking approach. Mr. Kawamoto, the Chief Editor of Commercial Photo, asked the director and production staff about what kind of challenges and issues they faced when making this video.

Attempting a visual expression never attempted before

"LUNA" is a work that combines 8K/HDR live filming with CG, and its images hit you with a vivid sense of presence. When creating this work, the producer, Mr. Haruyuki Moroishi, says that he set three missions: "to fuse beautiful images with the story, making the story the subject" ; "to energize the story by visually expressing light using HDR" ; and "to attempt to combine live filming with CG". By making use of HDR for the moon and stars, and 8K high-resolution for the nighttime scenery, they came up with the idea of creating a modern version of Princess Kaguya.

The director, Mr. Kazuma Ikeda, considered how to show the distinctive features of 8K/HDR in an attractive way. As well as, differing to the standard SDR and 2K/4K, what should be done about parts that are too visible? As a result, we decided that "expressing the characters' presence, the atmosphere and the mood through images was crucial." Therefore, hardly any skin touch-ups – a common practice – were made, and realism was left in wherever possible. Mr. Ikeda says, "Things visible on location are all shown on the screen in an unchanged state. So we worked very hard on scene prepara-

tion to achieve a quality as if one were watching with the naked eye at the filming location."

Mr. Koichi Tonozuka talked about the hard work involved in shooting the video. Although the drama itself is 17 minutes long, filming took three days. In addition, filming took 22 hours a day and the other two hours were used for data backup. Post-production work was also physically grueling. Because of a photographic sensitivity problem in the night view scenes, there was a lot of video noise, so substantial time was taken to eliminate it. Also, due to the vast amount of data, Silverstack was used to copy data that was simultaneously shot on main and backup cameras.

Synergizing live filming with CG was trial and error. For example, Mr. Yumeto Kitayama says that 8K left a strong impression of "being too visible" when synergizing the moon. Precise details are not actually supposed to be seen, so there was a problem in deciding how much should not be shown. Being able to perform grading when synergizing with Rio was said to be an advantage.

There were other major differences besides technology. Mr. Ikeda says, "For example, emotional parts such as smells and coldness can be felt just by using images. This allows us to omit explanatory film-cutting when putting a film together." In the case of camera blocking also, the cutting method differs to standard video, he says.

This is how 17 minutes of video was made. It was only shown in 4K/SDR at the venue, but one could feel the breathing of the characters appearing in the video. We look forward to the time when people watch 8K/HDR in a relaxed environment.

Site of Professional Drone Aerial Photography

The emergence of drones has enabled previously impenetrable places and situations to be filmed. For example, even with cuts that can technically be shot by using a crane, equipment cannot be taken to the summit of a mountain that has unpaved roads or into a valuable cultural property. Drone filming has made it possible to film the previously impossible, and the various problems and solutions behind such filming were discussed at this lecture.

"Airvision" oversees aerial photography at Studioamana. Mr. Kobayashi has worked on aerial photography for many TV commericials, "*Majo no Takkyuubin*" (Kiki's Delivery Service), and the opening of the "*Sanada Maru*" NHK Taiga drama series.

Mr. Kobayashi oversaw 10 cuts for the opening of "*Sanada Maru*". Filming took a total of nine days at six different locations. The number of flights was as many as 104. He introduced how these were filmed as well as the kind of difficulties faced in the background.

Firstly, Kagami-ike pond in Togakushi, Nagano Prefecture appears at the beginning of the film. Kagami-ike pond is beautiful, but when flying a drone, the wind pressure caused by its propeller creates ripples on the water surface to the rear of the drone body. So it was filmed to be played backwards, preventing ripples being shown on the screen.

Similar filming for reverse playback was surprisingly common, because hair and plants are affected by wind caused by the drone. Scenes that hone in on actors were filmed for reverse playback. When the drone gets close to an actor it can be dangerous, so the ending cut was pre-decided and the drone pulled away before it got too close.

Bicchu Matsuyama-jo Castle is the only surviving mountain castle in Japan and cannot even be accessed by car. Only a drone, therefore, could be used for the filming. Because the castle only has stone steps, the machine was placed on a wooden rack and carried up the steps by back. The drone body is fairly large and, including the filming equipment, this was a very heavy load. Similar locations like this, where a mountain can only be climbed by human effort, are said to be fairly common.

For the cut at Matsushiro-jo Castle in Nagano Prefecture, the camera goes into the open castle gate. A drone was selected for this because there is an arched bridge in front of it, so a rail cannot be placed there and the budget and time needed for a techno crane was daunting. Linear images even

with a handheld camera would be impossible because the bridge is curved. That's why the drone was selected.

The avenue of cedars in Togakushi-jinja Shrine was an extremely tense location because GPS cannot be used. GPS was needed to return the drone to the original place when radio waves are interrupted, and it was used to stabilize the machine's position against external effects such as wind. This cut passes through the trees, but the wind whipped up by the machine had an impact as it deflected onto the trees. Also, because the visual perspective gets more out of control the farther one goes, the filming had to be done extremely carefully where there was no GPS reception.

The actual filming was carried out by a two-man unit made up of the pilot and camera operator. This system allowed the pilot to concentrate on where to take the drone and the camera operator on continuously capturing objects and giving direction. The director or cameraman often gave instructions from behind to the camera operator.

There was also talk about the machinery involved, which included an introduction to dedicated vehicles for carrying drones, high-capacity batteries, filming equipment, and how to downlink SDI filming. It was said that although it is easy to make generalizations about drone filming, it is by no means easy and a wide range of operating knowledge is needed.

Asia Directors Super Session

Mr. Shinji Higuchi is a movie director who has worked on many hit and much-discussed movies (e.g. *Shin Godzilla and Attack on Titan*). Mr. Jack Neo is a Singaporean movie director with a distinctive career originating as a comedian who has made successive hit movies. These two directors, who are leading the world of movies as top runners in Asia, talked together about their hopes for the world of creators/movies in the future and other current issues.

How to Make an Original Movie

Digicon 6 is a video festival organized by TBS to discover excellent content creators from 11 Asian countries and regions. Mr. Jack Neo came to Japan to serve as a judge at this festival.

Mr. Neo has produced movies for about 16 years in Singapore. He is a wonderful director who breaks box office records each time. He has released about 30 movies to date. His movies mainly depict the lives of people. In particular, he treats the element of comedy with great importance.

Mr. Higuchi asked the following of Mr. Neo who has continued to be so vigorously active. "There is no money in Japan for movies that don't have clear prospects of returning funds to investors. This means we get remakes, movies from original works and movies originating from TV dramas. There is no one who will put up money for original scripts. What do you do about that?" Mr. Neo replied to this as follows. "Singapore is the same. It is high risk to make a new movie from scratch. However I take risks to make original movies." He then revealed an episode in which sequels are made one after the other when very popular by giving the example of the movie *Ah Boys to Men* that he made.

State of Video Not Constrained by Countries

Both directors mentioned the future of creators after watching the works nominated for the Grand Prix at DigiCon 6.
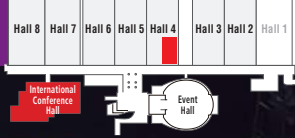
Mr. Neo had the following to say. "I think that movies in Asia are too constrained by local culture. I feel that there are many movies that would be difficult to export. I want movies that everyone can understand regardless of their nationality."

Mr. Higuchi also spoke about feeling a barrier. "Everyone is becoming a generalist from a situation in which we have to make movies ourselves. This is great on one hand. However, on the other hand, I wonder whether this is a barrier. There is a tendency to employ people who can do everything. However, I think it is possible to make great movies by combining people who are not like this."

In response to this, Mr. Neo revealed his Help Yourself Project that he is currently working on. He spoke about whether it would be possible to produce a 100 minute movie by dividing production between five Asian countries with each country producing 20 minutes. This production method will create a movie that plays for 100 minutes in each country at one fifth of the cost.

Mr. Neo had this to say about this project. "I think horror would be good. Maybe Godzilla would work." Mr. Higuchi responded with a smile. "It would be good to have Godzilla go to various countries but then eventually meet a common ending of being beaten."

Inter BEE Forum & Event Report
Programs

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International
Conference
Hall

Event
Hall

INTER BEE IGNITION

✕ INTER BEE IGNITION Keynote

▶ Venue: International Conference Room, 2F International Conference Hall

INTER BEE IGNITION -Outlook 2020

11.17 (Thu)	13:00 ▼ 14:30	Keynote 2020×Pop&Tech	Panel Discussion "Future of Media & Entertainment Opened Up by Technology"

Mr. Ichiya Nakamura
Professor,
Keio University Graduate School of
Media Design

Moderator ——— Panelists

Ms. Mariko Nishimura
Chief Editor of SENSORS.jp
CEO of HEART CATCH Inc.

Mr. Kei Wakabayashi
Editor in Chief,
WIRED Japan

Mr. Atsushi Wakimoto
General manager, Cultural Division,
Computer Graphic Arts Society(CG-ARTS)
Secretariat Director of
Japan Media Arts Festival

Mr. Naotaka Fujii
Representative Director,
Hacosco Inc.

✕ Stage Demonstration and Sessions

▶ Venue: INTER BEE IGNITION Stage, Exhibition Hall 4

11.16 (Wed)

AIS-J Commendation Ceremony 2016
Advanced Imaging Society, Japan Committee (AIS-J) has been organizing Lumiere Japan Awards to commend outstanding 3D & 4K works in Japan. From this year, AIS-J started the VR category. AIS-J also commended practical activities contributing to the growth and widespread of advanced imaging media as the Good Practice Awards.

■**Advanced Imaging Society Good Practice Awards**
Good Practice Awards was newly established in order to commend outstanding practical activities focusing and utilizing the characteristics of advanced image from 2013. A memorable first year, four awards were presented to the following activities.

■**Advanced Imaging Society Lumiere Japan Awards**
Lumiere Japan has been promoted since 2011 in order to increase and improve advanced image content by commending outstanding works in Japan. Winners of this year were announced at the ceremony.

11:00 ▼ 13:00

13:20 ▼ 13:40
Exhibitor's Presentation
Design the experience.

Think Design Co., Ltd.

Advanced Imaging University Seminar

VR, HDR and HFR:
The AIS Activity Report

Mr. Jim Chabin
Chairman, Advanced Imaging Society

VR viewed from stereoscopic imaging

14:00 ▼ 17:00
Mr. Takashi Kawai
Japan Committee Chair, Advanced Imaging Society
Professor, Faculty of Science and Engineering, Waseda University

From Timely to Timeless
Opportunity and
the Future-proofing of VR

Mr. Guy Primus
The Virtual Reality Company CEO
(VR production for movie "Odyssey")

11.17 (Thu)

10:20 ▼ 10:40
Exhibitor's Presentation
360° video filming for business

Kid's Plates Inc.

11:00 ▼ 12:00
Media Art Session Powered by SENSORS
The power of media art to shape the future,
according to Yoichi Ochiai

Mr. Yoichi Ochiai
media artist
Assistant Professor,
University of Tsukuba

Interviewer :
Ms. Mariko Nishimura
Chief Editor of SENSORS.jp
CEO of HEART CATCH Inc.

12:20 ▼ 12:40
Exhibitor's Presentation
Augmented TV -- Expand your visual experience.

NHK

Future of High-quality VR and Media
Created by Television Industry Personnel:
Present Times in the VR Business from Local Stations Starting in Earnest

GuruVR Presentation

Mr. Kensuke Joji
CEO, JOLLYGOOD INC.

13:00 ▼ 14:30
Session: Present Times in the VR Business from
Local Stations

Moderator

Mr. Kensuke Joji
CEO, JOLLYGOOD INC.

Mr. Atsushi Onoue
IT Contents Section,
Senior Director
Television Nishinippon
Corporation

Panelists

Mr. Tetsuji Ogawa
Manager, Digital Media Department,
Digital Media and Events Division
Hokkaido Broadcasting Co., Ltd.

Mr. Ryota Kinohara
Supervisor,
Sales Planning Division,
Tokai Television
Broadcasting Co., Ltd.

Near future 4K/8K large screen viewing

15:00 ▼ 16:00
Mr. Ichiya Nakamura
Professor,
Keio University Graduate School of
Media Design

Mr. Shuji Nakamura
Deputy General Manager,
Enterprise Management Business Unit
Mitsubishi Research Institute, Inc.

Mr. Akira Yoshizawa
Executive Officer
Next Generation Contents
Distribution Forum

Live Entertainment Session Powered by SENSORS
New way to enjoy music
– the future of live entertainment

Moderator

16:20 ▼ 17:20
Mr. Takato Ichiki
Assistant Editor-in-Chief,
SENSORS.jp

Mr. Tomokazu Yamada
Movie producer
and director

Panelists

Mr. Takayuki Suzuki
President/
EnterTech Accelerator
ParadeAll Inc.

Mr. Kenichi Yoda
Operating Channel Business
Promotion Dept.
and President's Office Planning Dept,
Nippon Television Network Corporation

17:45 ▼ 19:00
INTER BEE IGNITION NIGHT 2016
The fantasy unit STARMARIE gave a performance and the live presenter Mr. Akihiro Habuchi gave a presentation to demonstrate the possibilities of the live viewing business. Instead of just a relay on a large 4K/8K screen, camera work in live viewing, cooperation with the real world, shared experience value and more were considered.

11.18 (Fri)

10:20 ▼ 10:40
Exhibitor's Presentation
Multi stream live studio application

24Stream Inc.

11:00 ▼ 12:00
Live Entertainment Session
In anticipation of 2020
- the potential of live entertainment business

Moderator

Mr.Hideki Hashimoto
Manager,
New Business Promotion Division,
SKY Perfect JSAT Corporation

Mr.Junichi Hikiba
Director,
Digital Signage Consortium

Panelists

Ms.Nozomi Kishita
STAR MARIE

Ms.Shino Takamori
STAR MARIE

12:20 ▼ 12:40
Exhibitor's Presentation
360degree Native Binaural Recording and
Reproduction Algorithm for VR

J.TESORI Co., Ltd.

Will VR improve video? Pioneers talk VR from
viewing to "experience"

Moderator

Mr. Shun Kubota
CEO, Mogura Inc
Mogura VR Editor-in-chief

13:00 ▼ 14:30
Panelists

Mr.Toru Watanabe
360°videographer,
"Watanabe-ka"

Ms. Chiaki Mishiro
CEO, eje inc

15:00 ▼ 15:20
Exhibitor's Presentation
CG Real Time Live, Future possibilities

Premium ARTS Inc.

15:40 ▼ 16:00
Exhibitor's Presentation
VR / 360° Marketplace&AI searching system

MotionElements Pte, Ltd

16:20 ▼ 16:40
Exhibitor's Presentation
No green/blue screen is needed!
New generation video matting service,
"cutbackground.com"

M.SOFT CO., LTD.

INTER BEE IGNITION NIGHT 2016

11.17.(Thu) 17:45 ▶ 19:00
Exhibition Hall 4, Makuhari Messe
INTER BEE IGNITION

INTER BEE IGNITION

Bringing Together Advanced Imaging Technologies to Explore the Possibilities of New Media.
Live Entertainment technology With a Market That is Expanding toward 2020.

INTER BEE IGNITION was launched at Inter BEE as a new project for 2016.

This project collected new forms of visual expression technology such as VR (Virtual Reality), AR (Augmented Reality) and holograms, for which new growth is expected, and "content technologies" providing new experiences such as live entertainment technology combining vision, sound, lighting and performance, and the possibilities of new media were presented to the next generation and to the future by means of presentations and exhibitions.

Exhibition booth with enthusiasm worthy of 2016 as "the first year of VR"

New visual experiences attract many visitors

"Future of High-quality VR and Media Created by Television Industry Personnel:
The Present Times in the VR Business from Local Stations Starting in Earnest"

In the first half of the session, Jollygood CEO Kensuke Joji introduced his company's "GuruVR" VR platform, and the latter half of the session was titled "The Present Times in the VR Business from Local Stations Starting in Earnest" with Mr. Joji as moderator joined on-stage by three people from local stations who had developed VR content with the introduction of GuruVR.

■ Local broadcasting stations present a string of VR application projects

GuruVR was developed by Mr. Kensuke Joji, who used to be in charge of program production and projects at IBC Iwate Broadcasting Company. He encountered VR when he was in charge of planning and developing programs at a leading advertising agency, and he developed GuruVR as he was producing hundreds of VR visions on his own. The main characteristics of this platform are that the camera is supported by a special arm that makes it possible to shoot by setting the camera on the shoulder of speakers, as announcers and cameramen would not be inadvertently visible, and that announcers can also use both hands freely. Additionally, since the menu displayed on the screen can be chosen by the original pointer, which can be operated by one's gaze, there are advantages in being able to incorporate e-commerce without using devices other than VR viewers, facilitating the creation of rich contents.

Jollygood also provides the tools to author content without using a distribution server and programing, assisting the broadcasting stations to create the environment by using its expertise in program production. Mr. Joji himself is well acquainted with the sales structure of local broadcasting stations, since he used to belong to such a broadcasting station, and he is providing support with the business development of content in mind. Recently, an educational program that enables learning of VR content in a short period of time has been provided as a boot camp.

■ Promoting VR as a new business tool

In the latter half of the session, the stage was given over to Mr. Ryota Kinohara, Supervisor of the Sales Planning Division at Tokai Television Broadcasting; Mr. Atsushi Onoue, Senior Director of the IT Content Section, at Television Nishinippon Corporation; and Mr. Tetsuji Ogawa, Manager of Digital Media Dept., Digital Media and Events Division at Hokkaido Broadcasting Corporation.

Mr. Ogawa from Hokkaido Broadcasting Corporation, which is releasing the "HBC VR" application using GuruVR, said: "I had the feeling that there must be new needs. Also, I thought locality could be an advantage." As for his impressions after production, he mentioned that "We can enjoy a free viewpoint" and "get a sense of height", but at the same time he pointed out concerns that a distant view can feel farther away with a 360-degree camera than with conventional cameras, and that failure can occur due to movements that highlight problems with image stitching. He also expressed the following expectations: "The priority now is to increase the amount of experiences. What the TV station has been doing and 360-degree movies don't fit together. I hope it will be the case that technology and media complement each other."

Mr. Onoue from Television Nishinippon began by explaining that his involvement began when he started thinking about trying something new to bring together broadcasting and the Internet while he was in charge of the transmissions, information systems, data broadcasting and the homepage of the broadcasting station, as well as participating in a Multiscreen Broadcasting Study Group, because he began to think about starting something new by the collaboration between broadcasting and internet, he explained. He announced "VR Kyushu" with the commitment to "make a new trend on our own". He is seeking the collaborators in Kyushu as he is also currently working on content development. "The present goal," Mr. Onoue says, "is to make the number of partner companies 10 and the number of contents 100. I would like to achieve this within a year." He described as his own dream that he "would like to perform VR broadcasting since I'm working on the radio wave. Everyone can enjoy entertainment in a special seat. Live broadcasting can give a sense of actually being at a venue. I want to create the environment to watch VR contents such as concerts and live broadcasting of sports events together."

Mr. Kinohara from Tokai Television Broadcasting looked back on the time when he watched VR with GuruVR for the first time: "I just thought it was interesting and that it could be a good area to work on for the local station." In August, an outdoor concert of the SKE48 of AKB group was held in Mihama-cho, Aichi Prefecture. When the program was made from the concert, the live footage was delivered with VR as a new approach. Mr. Kinohara explains: "VR vision goes well with television. I consider it to be a new tool that television stations can use. I can make a suggestion to make VR as the new sales tool for sponsors and deliver it through the application of Tokai Television. The organization development that delivers VR can form a new charging business. I expect that there will be many possibilities."

"The Near Future of 4K8K Large-Screen Viewing"

With Mr. Akira Yoshizawa, Secretary General at the Next Generation Contents Distribution Forum as a facilitator, a session about the activities of Next Generation Contents Distribution Forum was held as the stage welcomed Mr. Ichiya Nakamura, the Director from the same forum and also the Professor at Keio University Graduate School of Media Design, and Mr. Shuji Nakamura, Deputy Director of the Corporate/ Management Dept. at Mitsubishi Research Institute.

■ The decisive factor of 8K is B2B

At the outset, Mr. Yoshizawa asked Mr. Nakamura about the future of 4K8K large-screen viewing and Mr. Nakamura answered as follows:

"I had been working to spread HD terrestrial digital broadcasting, and then the idea of 4K8K was suggested right after that. I was at loss for a while, but lately I have been thinking that it can work out. I myself have been using a digital signage consortium, and 4K signage has now become the norm. At the same time, I have tried public viewing of 8K many times recently and I'm confident that it will work out if people get to experience it. Although 4K is shifting and coming along smoothly, I think the decisive factor of 8K is B2B."

"While there are the movements of public viewing and mobile first, public viewing will progress as the Tokyo Olympics approaches, and 8K will be used more for medical care, schools and security. I expect that it will be used in a wider world than the one we are seeing here right now."

■ Making systems for content provision is important

Mr. Shuji Nakamura answered the same question as follows:

"8K has made a partial entry into the business system of large-screen viewing and digital signage. The cost has become reasonable for image control and it has now started appearing on the market. The rest is the switching timing from already existing equipment. Screens that are more than 50 inches for family use are mostly 4K-compatible. Also, for families in local areas with large properties, screens have been enlarged considerably and now include 4K-compatible devices. One of the issues is that the range of contents is very limited. The other issue is Internet capability. Unfortunately, even signage screens on the market controlled by the Internet are limited. Although 4K is suitable for use via broadband, there is no system to support this at present."

■ Public viewings at 100 locations during the year 2020

According to Mr. Yoshizawa, "the Next Generation Contents Distribution Forum was founded to solve these two issues". He continued:

"4K8K will become the mainstream form of in 2018, two years from now. The contents produced will increase. I would like to make a system to utilize, monetize and enrich the contents." Potential future uses that were mentioned included interior decoration images, security, medical care, education, digital signage, home theaters and public viewing. Mr. Yoshizawa also pointed out that stereophonic sound is an important factor in feeling high-resolution movies as real: "I would like to set the public viewing of 4K8K at 100 locations during 2020. This will usher in the era in which 100,000 or 500,000 people can enjoy the same performance at one time. Effective use after the Olympics is another mission." He then went on to explain that it is important to make a system to include valuable contents in the platform and deliver it through the Internet to achieve these aims.

■ I want as many people as possible to experience it

Mr. Nakamura introduced the fact that the implementation of 4K8K is progressing in many of Japan's municipalities and at the movie screening facilities in commercial spaces. However, he pointed out that it is not proceeding as smoothly as wished due to the costs associated with content production and movie screenings. The issue is how to achieve reasonable cost, including within the production environment.

Mr. Yoshizawa again emphasized the importance of content and the need to establish the distribution system, stating: "More than 200,000 pieces of movie screening equipment were updated through the year in both public and commercial facilities, and everything will be renewed in about five years. I have been working diligently on 4K sales over the past couple of years. Both content and a distribution system are needed."

Mr. Nakamura showed enthusiasm and concluded: "The essential thing for the arrival of this new era is motivation. The persons concerned all have greater motivation than I could have imagined. I want to do my best also. I want as many people as possible to experience it."

"INTER BEE IGNITION NIGHT 2016"

The special event "INTER BEE IGNITION NIGHT" by INTER BEE IGNITION was held at Hall 4 in the venue of INTER BEE IGNITION. While the venue's exhibition hours had already ended, this special event was held by using lighting exclusively at INTER BEE IGNITION area. There were more than 200 visitors at the venue. On stage to present the program were Mr. Hideki Hashimoto, Manager at New Business Promotion Division, Corporate Planning & Strategy Group, Corporate Planning & Administration Unit of SKY Perfect JSAT, and Mr. Akihiro Habuchi, commonly known as "Habuchin". At Pasona Career, Mr. Habuchi launched the "Hacker Club!" programming education project for those who are in charge of planning. He is known as the chairperson of a hackathon for government officials and citizens alike.

■ Key is the extent to which a feeling of presence can be enjoyed

At the beginning of the event, Mr. Hashimoto explained the aim of the event as follows:

"This event is a project with the theme of pursuing the new reality of live entertainment. The live entertainment market has been growing since the year 2000, and it has already grown to have a market of 520 billion yen including live music, entertainment, stage performances, etc., and it continues to expand. On the other hand, the live capacity has been reaching its limit, and the room for market growth is limited in this situation. Business expansion can be expected by simulcasting with both live viewing and public viewing. The big key is how people who can't come to the venue can sense the audience feeling and enjoying the show. To achieve this, we need Internet distribution technology, application of the newest technology for 4K8K high-resolution video, and creativity and originality by producers. This trial aims to inspect how viewers can sense the realistic feeling of a live stage by using 4K8K movies, various technologies and performance. Based on these three hypotheses, I want people to experience through actual performance and I am eager to hear comments from the venue."

■ New reality produced by the Internet

Mr. Habuchi continued with the following comment:

"A change to the sense of reality is about to happen in the world of the Internet. One thing is the key phrase 'live x technology'. The newest technologies such as VR are creating experiences such as Perfume live shows and the closing ceremony of the Rio Olympics. This gives the impression of 'real fantasy' rather than a 'sense of

reality', and though it's a space that mixes the past, present, future, live action and CG, it's possible to feel it as a real experience. The other key phrase is 'live x communication'. For example, you update your status on SNS and then get a reaction in the form of 'Likes'. The reaction itself is felt as the proof of experience and makes one feel the reality. There should be the possibility in performance to feel the new reality in live viewing. To begin with, I want to inspect performance using 4K live movies as the first trial."

■ Synchronizing movies and live action

On the stage at Hall 7 in the venue, the inspection was preceded by distributing 4K live movies of a performance by popular idol group STARMARIE and adding directions according to the three hypotheses. The venue became very lively as the fans of STARMARIE also joined in, and interactive communication with the members of STARMARIE at Hall 7, together with a performance presented by two of the five members who actually came to the INTER BEE IGNITION venue at Hall 4.

Since the members on the projector were screened almost at actual size and the performance was spectacular like the performance in front of the projector by the two members, there were many in the audience who changed their position to superimpose the members on the screen hanging above with the two actually dancing on the stage.

One comment from the venue was as follows: "When watching a live performance from a theater, there is the feeling that it's performed far away. But with the live performance on 4K projectors, we could get the sense of reality that we could almost touch."

Mr. Hashimoto noted that there were many who changed their positions to watch the performance as mentioned before and concluded that, "I think the audience could feel the possibilities of new reality. I think it will be possible to hold live events at several locations with stage effects and performances by using 4K8K and holograms, etc. I definitely want to lead this inspection to the next step."

"Live Entertainment Session"

Persons involved with the "INTER BEE IGNITION NIGHT", which was held in the same venue the night before by Digital Signage Consortium, explained the content and aims of the event.

Taking to the stage were Hideki Hashimoto, Manager at New Business Promotion Division, Corporate Planning & Strategy Group, Corporate Planning & Administration Unit of SKY Perfect JSAT, and Junichi Hikiba, Director of Digital Signage Consortium (DSC). Mr. Hashimoto had also worked as chair of the previous night's "INTER BEE IGNITION NIGHT."

■ The expanding live entertainment market

At the outset, Mr. Hashimoto introduced survey data showing that the live entertainment and stage performance market is expanding at a significant rate, having a value of 511.9 billion yen in FY2015, which marks a 20.2% increase over the previous year and caps four years of consecutive growth.

Mr. Hashimoto explained that one of the reasons for this expansion of the live entertainment market is the Ministry of Internal Affairs and Communications' promotion of an action plan to convert Japanese society as a whole into an ICT society and the promotion of strategic special zone plans, etc. in the run-up to the Tokyo Olympics of 2020.

SKY Perfect JSAT is also registered with the Next Generation Contents Distribution Forum (NexCDi-F), and is promoting content distribution and use of high-resolution images through cooperation with NexCDi-F and DSC.

At the "INTER BEE IGNITION NIGHT" event, the new potential of live content distribution was inspected through a performance by the popular 5-piece STARMARIE idol group.

Footage was taken of the performance, which took place in Hall 7, and this was projected as uncompressed 4K video via a 10,000 Lumen Panasonic projector in Hall 4. More than 200 people gathered in Hall 4 to enjoy this live session.

■ Inspecting production in line with hypotheses

At "INTER BEE IGNITION", a live performance was relayed based on hypotheses, establishing "the new reality of live entertainment" while adding production on the stage side where images were projected. Three hypotheses were tested: "Does a fixed camera not provide greater reality?", "Might it be possible to produce a new sense of reality by means of space production on the screen side?" and "Isn't communication with the audience also important?"

With regards to the first hypothesis - "Does a fixed camera not provide greater reality?" – Mr. Hashimoto explained that attention was

given to the matter of how to produce a sense of immersion and presence with high-resolution images. A four-minute performance from the live event was in the first half distributed by splicing images from four cameras, including close-up cameras, etc., and in the second half by means of one central fixed camera.

As for the second hypothesis - "Might it be possible to produce a new sense of reality by means of space production on the screen side?" – the same lighting as on the live stage was also used around the projector to produce the same atmosphere through changes and hues, etc.

In terms of the third hypothesis - "Isn't communication with the audience also important?" – cameras were even placed on the venue side for two-way interaction with fans, and two of the five group members moved to the venue and put on a performance in front of the screen, which was synchronized with that of the other three members who were being projected on the screen.

Following on from Mr. Hashimoto's explanation, Mr. Hashimoto stated his impression as follows: "Of course these were hypotheses, so not everything went to plan, but I think that at least we were able to get a little clue as to the direction to be taken."

■ Developing production techniques to capitalize on large-screen, high-resolution images is necessary

Thereafter, STARMARIE members Nozomi Kishita and Shino Takamori, who had performed in front of the screen as part of the previous day's performance, were welcomed to the stage and gave their impressions of the venue's atmosphere, etc. from the performers' perspective.

They explained how actual communication through video made the response enjoyable and uplifted their morale, as well as the fact that splitting the stage into two made it difficult to harmonize the formation of members in their performance.

Finally, Mr. Hashimoto stated the need to keep on overcoming challenges in relation to the three hypotheses. Also, Mr. Hashimoto made the following observation particularly with regard to the first hypothesis ("Does a fixed camera not provide greater reality?"): "Compared with watching in a living room, we need to think about ways of showing that are suited to large screens and high resolutions, and more actively encourage many people to experience this and give us their feedback. It's important that the market is created by the surrounding industry as a whole, including the technology and production sides."

INTER BEE EXPERIENCE

1:00 PM - 2:00 PM, Friday, November 18th

VR pioneer: "Will Video Evolve with VR?
The Switch from 'Viewing' to 'Experiencing'"

This session was moderated by Mr. Shun Kubota, Editor-in-Chief of the "Mogura VR" web media platform that dispatches 12-13 pieces of VR-related information per day, together with panelists Mr. Toru Watanabe, of the "*Watanabe-ka*" 360-degree video creation studio, and Ms. Chiaki Mishiro, CEO of eje, Inc.

Mr. Watanabe explained that the motivation behind starting VR production was initially that he worked with a 360-degree camera to produce a PR presentation video using VR. Currently, Mr. Watanabe is personally working on 360-degree video planning, shooting and editing, and his works have even been posted on YouTube. He has produced all kinds of content, including date style contents, 360-degree underwater videos, live music performances, and production/direction of music videos.

Regarding the characteristics of VR video contents, Mr. Watanabe points out that there is specialization in "personal experience" : "Ultimately, we have to count back from the point of considering how we want people to experience VR productions, and then design stories, plans and VR spaces from that starting point." Ms. Mishiro explained that she first encountered VR when working with QuickTime VR while in a PR role as a photographer. Thereafter, she founded eje in 2004, and has since achieved many results in proposing VR to businesses while working on the planning and production of creative contents, etc. She also added that the idea of "wanting to convey Japan's tangible and intangible cultural assets to the world through VR" sprouted while working on VR contents filmed on-the-spot in diverse genres, including the scenery of Osaka City and underwater film shooting.

Her company eje has launched Japan's first VR portal: VR CRUISE, which covers a wide range of genres including news, sports, and live artist performances. She is also working on installing VR experience spaces called Location VR in net cafes, karaoke and commercial facilities, etc. to give people opportunities to easily experience VR. Moreover, Ms. Mishiro explained that eje is also involved with the international "VR 4 good" movement, which delivers VR as a social service, for example by giving disabled children the opportunity to connect with animals in zoos, etc.

In response to Mr. Kubota asking about the differences between VR and conventional media, Mr. Watanabe said: "Movies and photos provide a vicarious experience from someone else's perspective, but VR is actually experienced by the individual viewer. Since the very images depend upon the person's head movement, this is significantly different from looking at things from another's perspective."

He also noted that a feature of VR is that multiple participants can share the same space but see things from their own unique viewpoints, although he also pointed out the important of performance, suggesting that "without changes of its speed and pace in the movement just like in a theater play, the viewers will be left behind. Participants tend to fall into the trap of having the impression of merely looking at things from outside. It will be important to determine how to produce an emotional responsive reaction within a story."

Ms. Mishiro noted: "Even in the virtual world, it is important that your character is set out. A date setting might be easy to understand. A good-looking guy arrives and the story progresses from there. The participant's emotions will be heightened by skillfully using within the story a performance that utilizes a sense of distances, such as being whispered to, feeling chills, or staring and feeling awkward."

With regards to camera positions, Mr. Watanabe explained: "It's also necessary to adjust to suit the stance and height of the viewer. Images are produced differently depending on whether the viewer is standing or sitting. The experience will be strange unless we can assume the height of the viewer's perspective." Ms. Mishiro added: "When installed centrally, the scene and distance become their actual size and are not interesting to look at, so it has to be skewed to one side."

As for future development, Mr. Watanabe says that development of contents adding bodily experience through vibration and inclination, etc. is proceeding apace in addition to VR image-based expression. With the "MX4D" chair that conveys vibration and inclination, he adds, the degree of experience will be increased to three times, or even to four times.

Ms. Mishiro concludes: "There are so many things I want to try. On November 23rd, a Gundam VR experience was opened. At that time, we had the cooperation of a Gundam specialist sound effects company, resulting in wonderful sound production. I hope we can produce more contents that make effective use of audio."

X-Speaker SR Speakers Demo & Presentation

▶ Support: Stage Sound Association of Japan, Japan Stage Sound Business Cooperative
▶ Media Partners: Sound & Recording | PROSOUND | Stage Sound Journal | SOUND
▶ Large Outdoor LED Display Sponsor: CREATELED
▶ Venue: Event Hall, Makuhari Messe

Largest in Japan! Further Widening the Range of Excitement

We added an SR speaker demo with the participation of acoustic companies to the line array event this year. We also established a category for point source speakers that are in high demand when updating equipment. We divided the line arrays into small and medium/large size categories and have organized a program that would allow you to experience these products depending on your purpose of introduction with the addition of product brands participating for the first time.

Product Brand/ Participant Company/ Schedule

	11.16（Wed）	11.17（Thu）	11.18（Fri）
10:30 ▼ 11:00	d&b audiotechnik Japan	Hibino corporation	
11:10 ▼ 11:40	BOSE K.K.	MARTIN AUDIO JAPAN Inc.	LIVEGEAR Inc.
11:50 ▼ 12:20	YAMAHA MUSIC JAPAN CO., LTD.	hibino intersound corporation	Rewire Inc.
12:30 ▼ 13:00	d&b audiotechnik Japan	Changing products	ATL CO., LTD.
13:10 ▼ 13:40	Changing products	d&b audiotechnik Japan	Changing products
13:50 ▼ 14:20	ONKYO TOKKI LTD.	BOSE K.K.	Hibino corporation
14:30 ▼ 15:00	Bosch Security Systems LTD.	YAMAHA MUSIC JAPAN CO., LTD.	MARTIN AUDIO JAPAN Inc.
15:10 ▼ 15:40	LIVEGEAR Inc.	d&b audiotechnik Japan	hibino intersound corporation
15:40 ▼ 16:20	Changing products	Changing products	
16:20 ▼ 16:50	Rewire Inc.	ONKYO TOKKI LTD.	
17:00 ▼ 17:30	Meyer Sound ATL CO., LTD.	Electro-Voice Bosch Security Systems LTD.	

■ Point source speakers ■ Compact line array speakers ■ Medium and large line array speakers

Equipment Assistance: ATL CO., LTD./ LIVEGEAR Inc. /MARTIN AUDIO JAPAN Inc.

X-Headphone Headphone Trial Listening Experience Exhibition
X-Microphone Microphone Trial Listening Experience Exhibition

▶ Venue: Exhibition Hall 2, Makuhari Messe

Experience! High-quality Sound Chosen by Professionals

There is a growing demand for high-end headphones in addition to those for professional use. This will be an exhibition of vocal microphones for which there are few opportunities to try listening to multiple brands at the same time. This exhibition brought together headphone and microphone products, for which there has been much demand in the past from visitors, to provide an opportunity for a trial listening exhibition complemented with exhibits and demos in the booths of each company.

X-Microphone Product Brand/ Participant Company

2601	Tech Trust Japan Co., LTD.	SCHOEPS Mikrofone
2602	UETAaX Corporation	UETAX
2603	Audio-Technica Corporation	audio-technica
2604	Roland Corporation	ASTON MICROPHONES
2605	Sennheiser Japan K.K.	SENNHEISER
2606	AUDIO BRAINS Co., ltd	beyerdynamic
2607	Hibino corporation	AKG

X-Headphone Product Brand/ Participant Company

2608	Shure Japan	SHURE
2609	Hibino corporation	AKG
2610	YAMAHA MUSIC JAPAN CO., LTD.	YAMAHA
2611	Sennheiser Japan K.K.	SENNHEISER
2612	Timelord ltd.	ULTRASONE
2613	Roland Corporation	v-moda
2614	Miyaji Import Division	NOBLE / MEE audio / TRINITY / PENDULUMIC / RHAPSODIO
2615	TEAC CORPORATION	beyerdynamic
2616	Audio-Technica Corporation	audio-technica
2617	OPPO Digital Japan Ltd./ emilai inc.	OPPO MrSpeakers

Equipment Assistance:TEAC CORPORATION/ YAMAHA MUSIC JAPAN CO., LTD.

CO-LOCATED EVENTS

Conference Sponsored Session

▶Venue: Room 103, 1F International Conference Hall, Makuhari Messe

11.16 (Wed)

12:30▼14:00

IMD Cloud: Transforming TVCM Distribution

Mr. Simon Cox
CEO, Group IMD

Ms. Ashley Botten
Global Sales Director, Group IMD

Mr. Yusuke Tani
Japan Technical Director, Group IMD

15:00▼17:00

The Technology That Supported the Creative Work on *Shin Godzilla*

Mr. Tetsuo Oya
VFX Producer ,Picture Elements Inc.

Mr. Seiji Saito
DI Producer ,Picture Elements Inc.

Mr. Charles Sevior
Chief Technology Officer at DELL EMC Emerging Technologies Division ,Dell Technologies

11.17 (Thu)

10:15▼11:30

4K/HDR end to end workflow made possible by DolbyVision

Mr. Simon Roehrs
Regional Manager, Broadcast Solutions and Applications, Rohde & Schwarz Japan K.K.

13:30▼14:30

Basic Knowledge of "Characters" Useful in Video Production

Mr. Keitaro Sakamoto
Marketing Div., Morisawa Inc.

15:00▼17:00

Introduction of NewTek IP workflow "NDI" and new Video solution

Mr. Will Waters
Director, Product Marketing & Sales Enablement, NewTek, Inc.

11.18 (Fri)

13:30▼14:30

Global Climate of Video Distribution Business, and Innovate Services from Accenture

Mr. Takeshi Yasumoto
Communications, Media & Technology Managing Director, Accenture Japan Ltd.

15:00▼17:00

4K/8K Broadcasting & Archiving using Open Source Software "Gluster"
- References and solutions -

Mr. Kenichiro Wada
Senior Development Manager Product Solution Div. Red Hat K.K.

Mr. Hajime Taira
Solution Architect Partner Solution Architect Div. Red Hat K.K.

Mr. Shiro Yada
Senior FAE, Qlogic Limited Japan Branch

Mr. Kensei Takeda
Sales Engineer, Enterprise Seles, SanDisk

▶Venue: Multipurpose room, 1F International Conference Hall, Makuhari Messe

11.17 (Thu)

13:30▼15:30

Outlook for Data Storage and Archiving System Construction Focused on 2020

(1) Speech:
    "8K Super Hi-Vision Broadcasting System Outlook and Archive toward 2020"

Mr. Kouji Mitani
Deputy Director of Science & Technology Research Laboratories, NHK

(2) Introduction Case Report
Terrestrial television stations and cable television stations

(3) Thorough Debate:
    Thorough Examination of In-house Facility On-premises and Cloud Usage Features

Amazon, EMC Japan, Sony, IBM Japan, Oracle Japan, Pioneer, Panasonic, Video-tech, FOR-A

The 53rd JBA Symposium of Broadcast Technology

▶Venue: 3F, International Conference Hall, Makuhari Messe
▶Sponsored by: The Japan Commercial Broadcasters Association

|	Room 301	Room 302	Room 303
11.16 (Wed)	**10:30▶17:20** Production Engineering	**10:30▶14:40** Broadcast Engineering	**10:30▶12:10** Pictorial Image Technology
		15:00▶17:20 Information Technology / Network	**13:00▶17:20** Datacasting / Digital Service
11.17 (Thu)	**13:30▶16:00**	**10:30▶11:50** Transmission	**10:30▶12:10** Network Linkage / Communication
		Special Program	
11.18 (Fri)	**10:30▶17:00** Production Engineering	**10:30▶16:20** Sound Broadcasting / Audio	**10:30▶17:00** Network Linkage / Communication

ZENEIKYO Forum 2016 in Makuhari

▶Date: Thursday, November 17
▶Venue: Tokyo Bay Makuhari Hall, APA Hotel & Resort
▶Organizer: National Board of Regional Visual Industry Association

ROKE-BENTO Grand prix

▶Venue: Exhibition Hall 5, Makuhari Messe
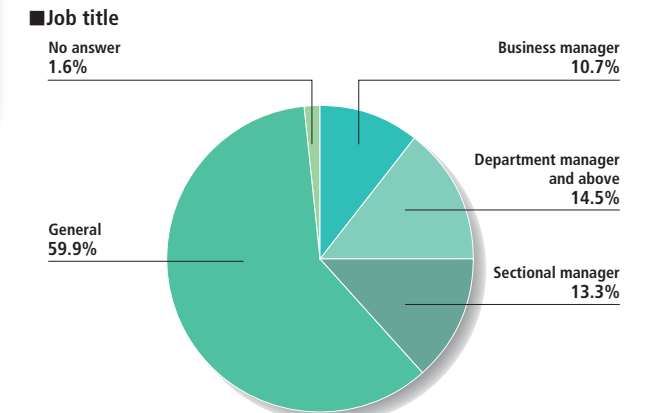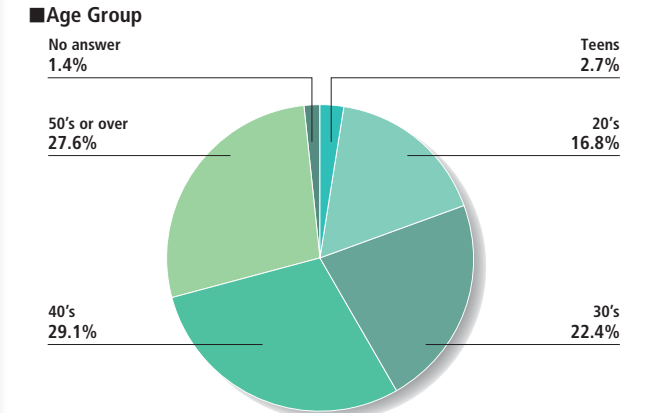▶Support: Location Japan / LOCANAVI!

The second ROKE-BENTO Grand Prix was expanded in size with new shops joining the 12 carefully selected shops that participated. This was a contest involving roke-bentos rich in variety with great tastes and high quality.
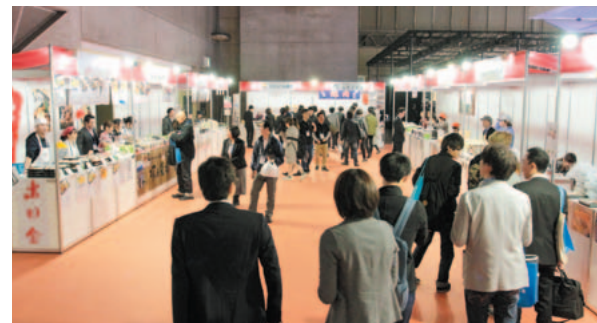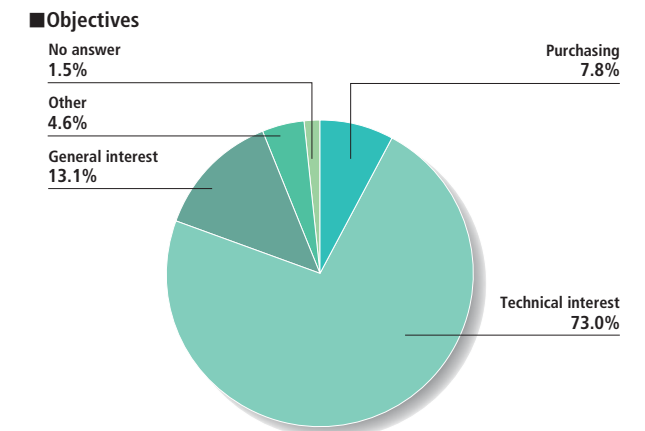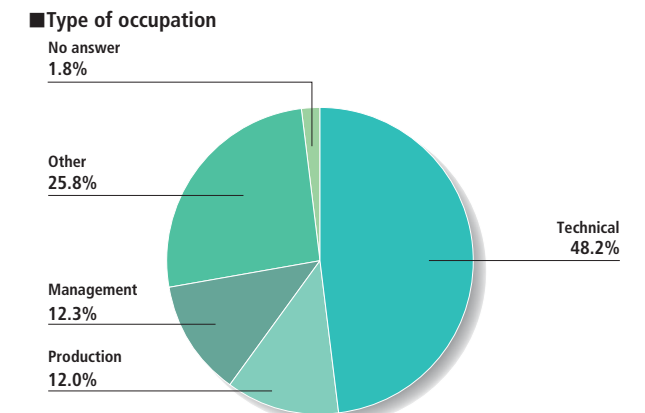
Result: Visitor Profile

■Breakdown of registered visitor number

	11.16 (Wed.)	11.17 (Thu.)	11.18 (Fri.)	TOTAL
Domestic	12,811	12,340	12,102	37,253
Overseas	415	261	118	794
TOTAL	13,226	12,601	12,220	38,047

No. of visitor:

38,047 people

■Breakdown of registered visitors

Area	Number of countries & region / Number of visitors	Breakdown of visitors by country & region
Domestic	1country / 37,253	Japan 37,253
Asia	14 countries & region / 581	Korea 255 / China 90 / Taiwan 84 / Philippines 38 / Singapore 26 / Indonesia 22 / Hong Kong 21 / Thailand 16 / India 12 / Cambodia 7 / Sri Lanka 4 / Malaysia 3 / Myanmar 2 / Mongol 1
North, Central and South America	4 countries / 61	U.S.A. 49 / Canada 6 / Brazil 4 / Colombia 2
Oceania	2 countries / 16	Australia 15 / New Zealand 1
Middle East / Africa	2 countries / 8	Qatar 4 / South Africa 4
Europe	15 countries / 54	United Kingdom 22 / Italy 5 / The Netherland 4 / Germany 4 / Spain 3 / Hungary 3 / Switzerland 2 / Sweden 2 / France 2 / Romania 2 / Denmark 1 / Norway 1 / Belgium 1 / Poland 1/ Portugal 1
Unknown		74
	38 countries & region	38,047

◆Visitor demography

■Age Group

- No answer 1.4%
- Teens 2.7%
- 20's 16.8%
- 30's 22.4%
- 40's 29.1%
- 50's or over 27.6%

■Job title

- No answer 1.6%
- Business manager 10.7%
- Department manager and above 14.5%
- Sectional manager 13.3%
- General 59.9%

■Type of occupation

- No answer 1.8%
- Technical 48.2%
- Management 12.3%
- Production 12.0%
- Other 25.8%

■Objectives

- No answer 1.5%
- Purchasing 7.8%
- Other 4.6%
- General interest 13.1%
- Technical interest 73.0%

■Type of Business

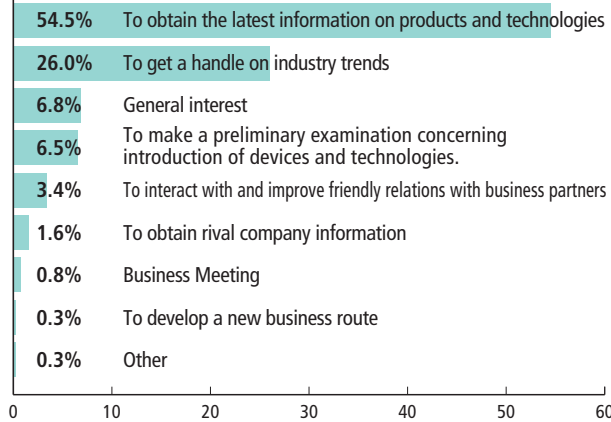|			
Equipment Manufacture	12.9%	Related Contents Publishers	3.3%
Other User	9.0%	Related Staging, Art and Lighting	2.7%
Commercial TV Broadcaster	9.0%	Related CATV	2.4%
Other	8.1%	Related Internet Business	2.3%
Post production	7.3%	Government office, Organization	1.9%
Film and Video Production Company	6.2%	Facilities and Stores	1.7%
Student	6.2%	Ad Agency	1.2%
Trading Company	5.9%	Video Software Production Company	1.2%
Production House	4.3%	Content Delivery Network	0.9%
Related PA Equipment	4.1%	Radio Station	0.7%
State-run Broadcasting Station	3.4%	Recording Company	0.6%
Telecommunications Carrier	3.4%	No Answer	1.3%

■Interest (Multiple answers accepted)

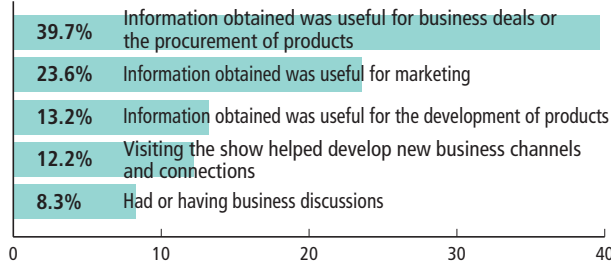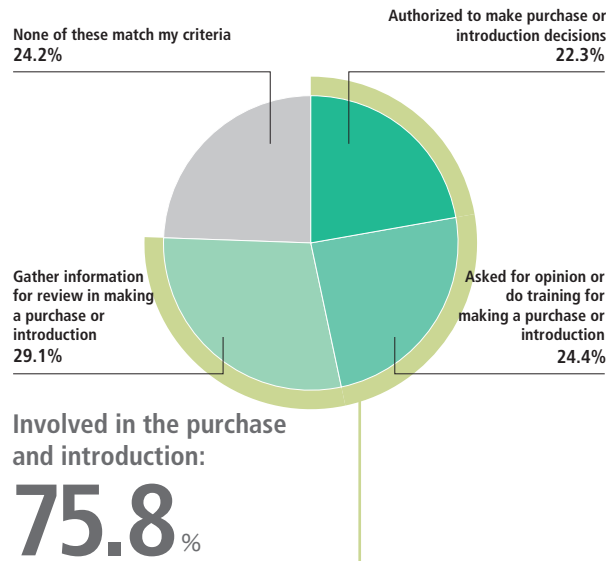|			
Video Equipment	54.6%	Transmission Systems	9.0%
Audio Equipment	33.3%	Cloud Services	8.6%
Camera	27.4%	Output System	8.4%
Editing and Production Equipment	18.6%	Lighting Equipment	7.9%
Electronic Display	16.0%	Multimedia System	7.4%
VR,AR,3D	14.4%	Stand-by and Peripheral Products	7.4%
Mixer	11.6%	Digital Cinema	6.6%
Speaker	11.3%	Measuring Equipment	5.7%
Software	10.7%	Production Management Systems	4.3%
Microphone	10.6%	OTT,SNS,Second Screen	4.1%
Digital Contents	10.6%	Electronic Power Unit	3.7%
Servers, Storage	10.3%	Art and staging	3.6%
Relay System	10.3%	Other	1.5%
VTRs, Memory Cards, Optical Disks	10.1%	No Answer	1.4%
PublicViewing, Projection Mapping, DigitalSignage	10.1%		

Visitor Questionnaire result

◆What was your goal in coming to "Inter BEE 2016"?
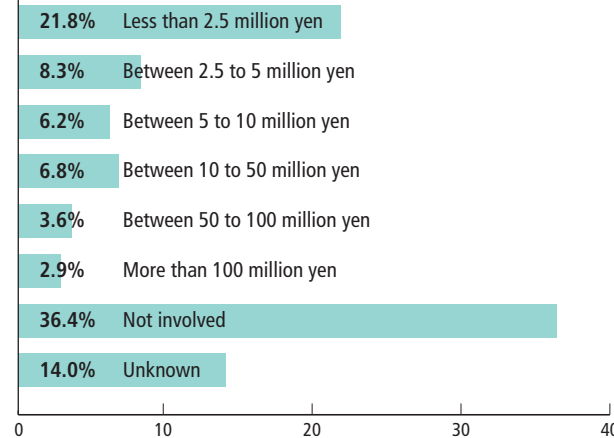(Multiple answers accepted)

- 54.5% To obtain the latest information on products and technologies
- 26.0% To get a handle on industry trends
- 6.8% General interest
- 6.5% To make a preliminary examination concerning introduction of devices and technologies.
- 3.4% To interact with and improve friendly relations with business partners
- 1.6% To obtain rival company information
- 0.8% Business Meeting
- 0.3% To develop a new business route
- 0.3% Other

◆Was your visit to Inter BEE 2016 valuable?
(Multiple answers accepted)

- 39.7% Information obtained was useful for business deals or the procurement of products
- 23.6% Information obtained was useful for marketing
- 13.2% Information obtained was useful for the development of products
- 12.2% Visiting the show helped develop new business channels and connections
- 8.3% Had or having business discussions

◆To what degree are you involved in the process of purchasing products/services in your company?

- None of these match my criteria 24.2%
- Authorized to make purchase or introduction decisions 22.3%
- Gather information for review in making a purchase or introduction 29.1%
- Asked for opinion or do training for making a purchase or introduction 24.4%

Involved in the purchase and introduction:

75.8%

◆How much is annual budget you are involved in the process of purchasing products/services?

- 21.8% Less than 2.5 million yen
- 8.3% Between 2.5 to 5 million yen
- 6.2% Between 5 to 10 million yen
- 6.8% Between 10 to 50 million yen
- 3.6% Between 50 to 100 million yen
- 2.9% More than 100 million yen
- 36.4% Not involved
- 14.0% Unknown

◆How satisfied are you with Inter BEE 2016

- Unsatisfied 0.8%
- Somewhat unsatisfied 2.9%
- Hard to say 13.2%
- Very satisfied 36.9%
- Somewhat satisfied 46.2%

Satisfied: 83.1%

■Changes in satisfaction degree

Legend: Very satisfied, Somewhat satisfied, Hard to say, Somewhat unsatisfied, Unsatisfied

Year	Very satisfied	Somewhat satisfied
2016	36.9%	46.2%
2015	33.4%	51.3%
2014	38.4%	42.6%
2013	28.7%	46.7%
2012	24.7%	46.8%
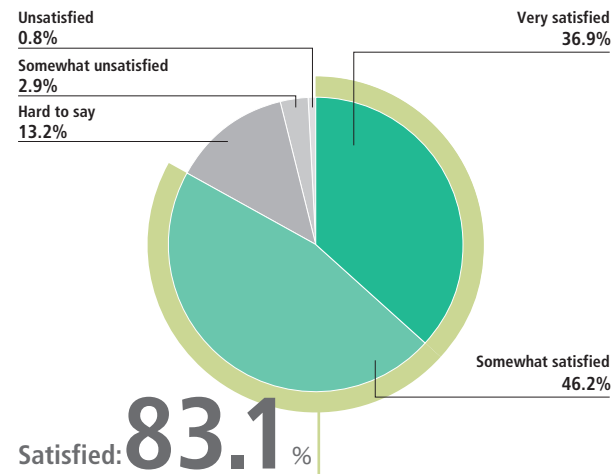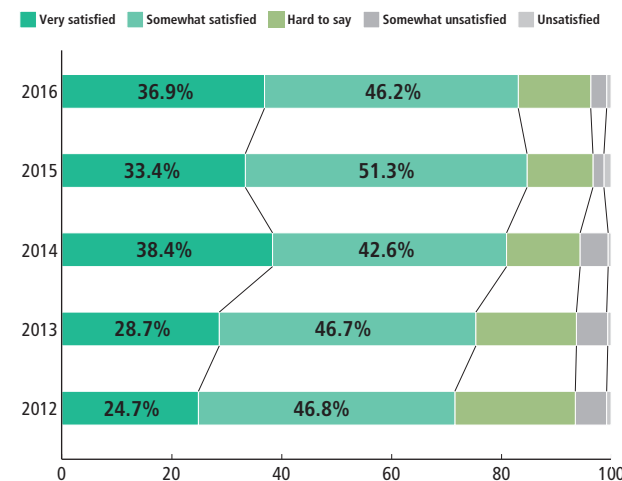
◆Do you plan to visit Inter BEE 2017?

- Undecided 6.3%
- Definitely plan to visit 63.6%
- Plan to visit 30.1%

Planned to visit Inter BEE 2017:

93.7%
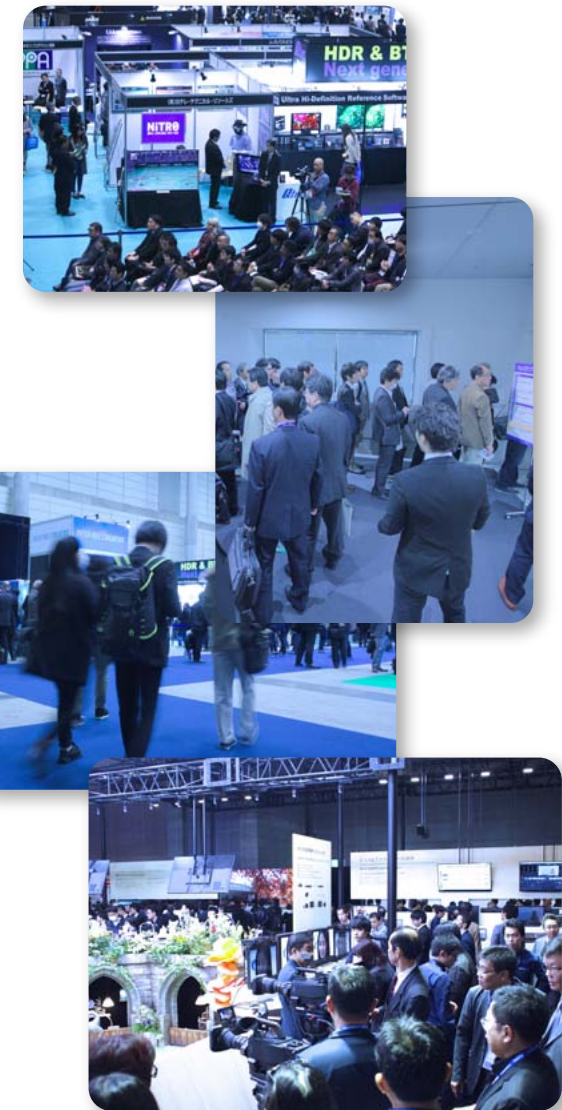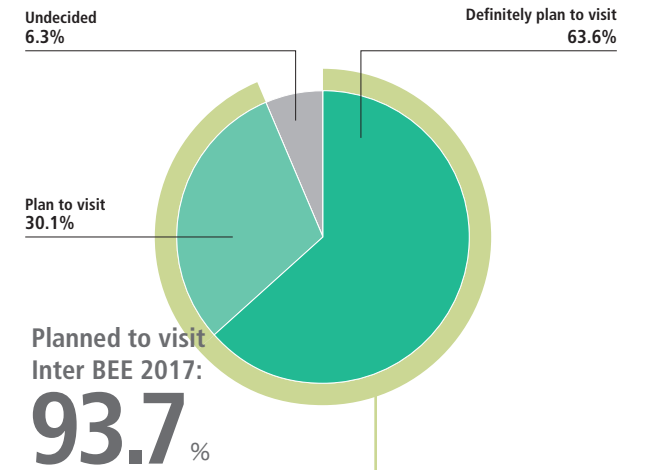
Result: Exhibitor Profile

Exhibitors Questionnaire result

◆**What were your main objectives for exhibiting at Inter BEE 2016?** (Multiple answers accepted)

%	Objective
78.4%	Sales promotion of products and/or technologies
73.3%	Marketing new products and technologies
71.6%	Seeking new clients in Japan
68.1%	Collecting information from visitors
45.7%	Strengthening relations with business clients
19.0%	Achieving business agreements
6.0%	Creating new overseas clients

■Number of exhibitors

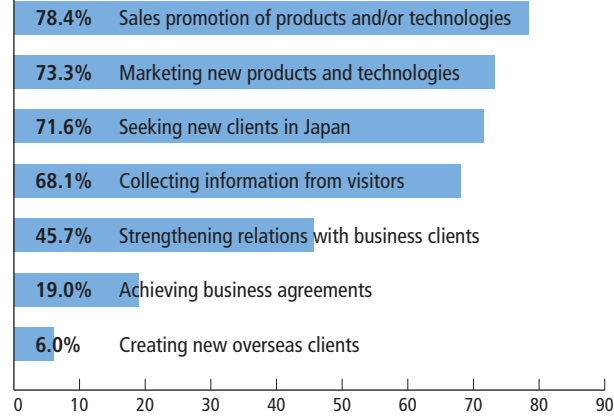| Exhibition category	No. of exhibitors	No. of booth
Professional Audio Equipment	369	385
Video Expression / Professional Lighting Equipment	42	69
Video Production / Broadcast Equipment	572	1,305
ICT / Cross Media	107	167
Total	1,090	1,926

■Breakdown of exhibitors

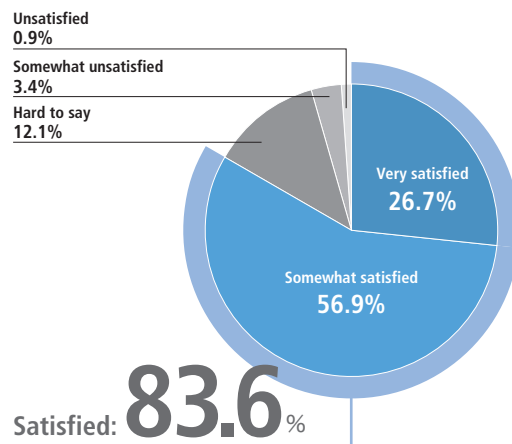| Area	Number of countries / region Number of exhibitors	Breakdown of exhibitors by country & region
Domestic	1 country / 497	Japan 497
Asia	5 countries and regions / 98	China 38 / Korea 28 / Taiwan 26 / Singapore 3 / Hong Kong 3
North, Central and South America	4 countries / 227	U.S.A. 206 / Canada 18 / Mexico 2 / Brazil 1
Oceania	2 countries / 11	Australia 9 / New Zealand 2
Middle East / Africa	3 countries / 10	Israel 8 / UAE 1 / South Africa 1
Europe	20 countries / 247	Germany 69 / United Kingdom 65 / France 21 / The Netherland 12 / Italy 11 / Switzerland 11 / Spanish 10 / Denmark 10 / Belgium 8 / Sweden 7 / Norway 5 / Portugal 3 / Austria 3 / Hungary 3 / Finland 2 / Bulgaria 2 / Russia 2 / Lichtenstein 1 / Latvia 1 / Turkey 1
	35 countries and regions	1,090

35 countries and regions

No. of exhibitors
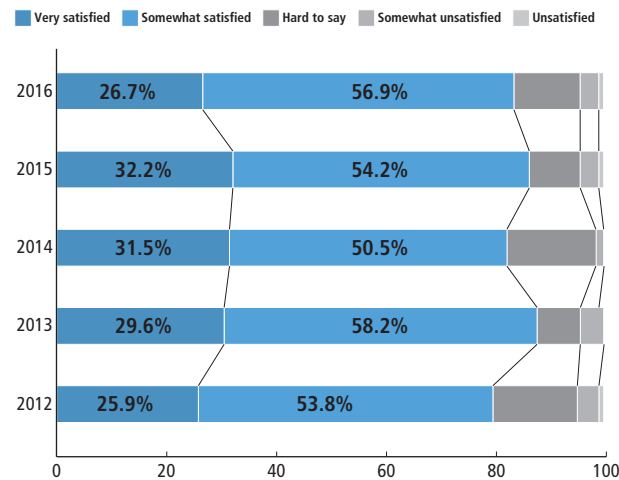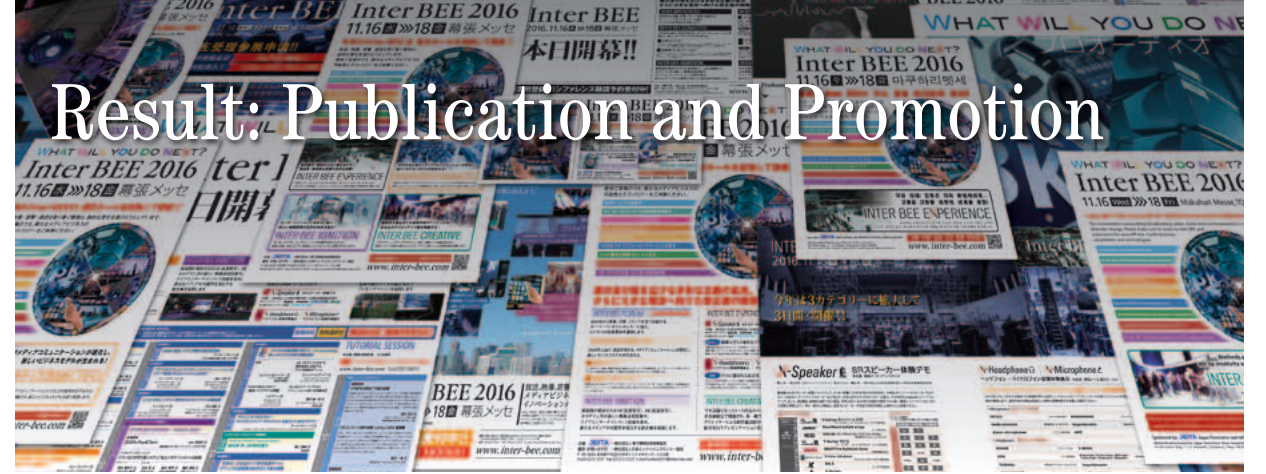
1,090 companies (record-high)

◆**How satisfied to accomplish your goal?**

Unsatisfied 0.9%
Somewhat unsatisfied 3.4%
Hard to say 12.1%
Very satisfied 26.7%
Somewhat satisfied 56.9%

Satisfied: **83.6**%

■Changes in satisfaction degree

■ Very satisfied ■ Somewhat satisfied ■ Hard to say ■ Somewhat unsatisfied ■ Unsatisfied

Year	Very satisfied	Somewhat satisfied
2016	26.7%	56.9%
2015	32.2%	54.2%
2014	31.5%	50.5%
2013	29.6%	58.2%
2012	25.9%	53.8%

Result: Publication and Promotion

1. Publicity activities (actual distribution of press releases)

- Notification of start of exhibitor recruiting (2/29)
- Notification of start of pre-admission registration (9/27)
- Announcement of the outline of INTER BEE EXPERIENCE (10/11)
- Announcement of the outline of INTER BEE CONNECTED (10/18)
- Announcement of the outline of INTER BEE FORUM (10/26)
- Announcement of the outline of INTER BEE CREATIVE (11/2)
- Attracting interviewers (11/1,11/8,11/11,11/14)
- Announcement of the outline of INTER BEE IGNITION (11/10)
- Announcement of the opening (11/15)
- Set up press room (11/16-18)
- Reported completion (11/18)

2. News Media Representative

451 **Record-high** people (17 from overseas)

3. Number of articles in the printed media

	No. of articles
Before the show	162
During the show	33
After the show	197
Total	392

※as of 2017.1.20

4. Newspapers and Magazines Articles in Japan (main publications)

- Automation News
- B-maga
- Broadcasting Engineering
- Camera Times
- Dempa Shimbun
- Dempa Times
- Eizo Shimbun
- FDI(Full Digital Innovation)
- Fuji Sankei business i
- HOSO JOURNAL
- NEW MEDIA
- Nikkei Sangyo Shimbun
- SANKEI SHIMBUN
- Senka21
- SOUND DESIGNER
- The Japan Exhibition News
- VIDEO JOURnAL
- Video Plus
- VIDEO SALON
- Video Tsushin

5. On-air media

Domestic

Broadcast station	Date	Program
AbemaTV	Nov. 16	Abema Prime
Fuji Television Network	Nov. 18	Houdoukyoku Go Go (FOD)
Fuji Television Network	Nov. 19	News Weekly Fuji Remarks
TV Asahi	Dec. 18	Hi! It's TV Asahi
Nippon Television Network	Dec. 18	SENSORS
CHUKYO TV	2017, Jan. 15, 22, 29,	IT Pump

Overseas

Broadcast station	Date	Program
NTN24 North and South America (Spanish)	Nov. 25	CTS Salud Ciencia et Technologia: segment #1
	Dec. 1	CTS Salud Ciencia et Technologia: segment #2
RCN TV Colombia and North America	Nov. 29	Daily Newscast "Noticias" segment #1
	Dec. 2	Daily Newscast "Noticias" segment #2
Matinal PYC Colombia	Nov. 23	"Image*": segment #1
	Dec. 5	"Image*": segment #2
Telepasifico North and South America (Spanish)	Nov. 23	Noticias 90 Minutos: Daily News Show:segment #1
	Dec. 5	Noticias 90 Minutos: Daily Newscast:segment #2
RED MAS NOTICIAS Colombia and U.S.A	Oct 28	Daily Newscast Report: segment#2
	Nov. 29	Daily Newscast Report: segment#1
AWE-TV USA Cable-net	Dec. 28	Selling Yacht- Inter BEE segment
	Dec. 31	Behinds the Gate-Inter BEE segment

6. List of publication (Domestic)

Automation News
B-maga
Broadcast Engineering
CG World & Digital Video
Commercial Broadcasting Monthly
Dempa Shimbun
Dempa Times
Eizo Shimbun
EVENT MARKETING
FDI (Full Digital Innovation)
FORN
HOSO JOURNAL
MJ-Audio Technology
NEW MEDIA
Nikkei Sangyo Shimbun
PRO SOUND
Sound & Recording Magazine
Telecommunication
The Motion Picture and Television Engineering
VIDEO JOURNAL
Video SALON

7. List of publication (Overseas)

ABU Technical Review (Asia)
Asia Pacific Broadcasting (Asia)
Broadcast & Production (China)
Broadcast India (India)
Broadcasting & Cable (USA)
PA-Professional Audio (Korea)
Television Asia (Asia)
Video Plus (Korea)

8. Inter BEE Official Mail Magazine

Inter BEE sends News Center information, such as Inter BEE highlights and articles posted on Inter BEE Online, in e-mail magazine form to target visitors from the Inter BEE Visitor Database.

Approx. **95,000** ※The number of data instances that can be distributed

9. Inter BEE Official Website

◆Page views: **199,270** views

(From November 1st to November 30th)

The Inter BEE Online Magazine helps people catch up instantly on the latest information from Inter BEE exhibitors, such as related events and the latest industry news all year round.

Number of articles posted before the show **58**

Number of video clips posted during the show (Inter BEE TV) **156**

10. Official Facebook

◆Number of Likes received post conference:

4,204 Likes (an increase of **112**% from the previous year)

◆Number of page transfers from the Facebook page to the Official Website:

9,043

11. Official Twitter

◆Number of Twitter Followers (at max):

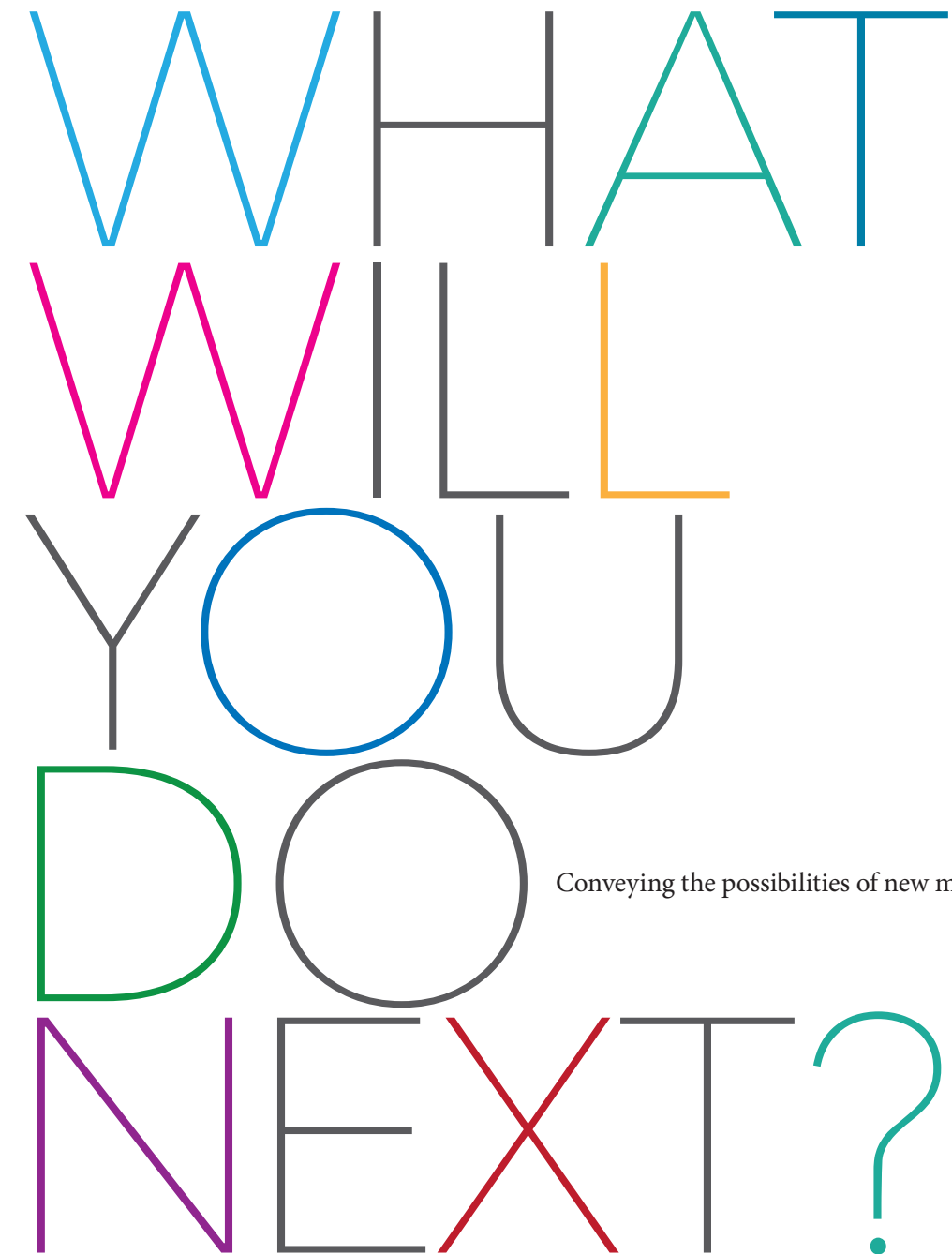**980** followers (an increase of **132**% from the previous year)

12. Media partners

Related industry journals and magazines helped support Inter BEE as media partners, graciously publishing many articles on the exhibitors.

Inter BEE 2017

11.15 Wed. ≫ 17 Fri. Makuhari Messe

WHAT WILL YOU DO NEXT?

Conveying the possibilities of new media to the world.

Broadmedia & Entertainment

INTER BEE ONLINE
www.inter-bee.com