

MECHATROLINK News "MMA-FLASH" brings the latest MECHATROLINK information.

## Feature Article

Report of 2015 MMA General Meeting, Lectures, and Reception

# Great Success of 2015 MMA General Meeting and Special Lectures Builds a Bridge between FA and IT

We deliver the latest news and information to MMA member companies and MECHATROLINK users in our feature articles. In this edition, we have included a report on the 2015 MMA general meeting held at UDX Conference in Akihabara, Tokyo, on June 5 (Fri), 2015.

The MMA general meeting has solidified its status as an annual event of the MMA in the early summer. This year, 150 people from 93 companies took part in the meeting, which is the highest number of participants to date.



Hiroshi Ogasawara  
President of Executive  
Committee of the MMA

All the seats in the meeting hall were occupied soon after the door opened and the hall rang with the excited voices of the participants from the very start of the meeting.

In his welcome speech, Hiroshi Ogasawara, the President of the Executive Committee of the MMA, spoke about the MMA's future outlook based on the keyword of "Industrie 4.0," a strategic initiative of the German government which refers to a fourth industrial revolution. He talked about the implications of the prevalence of MECHATROLINK in an environment where all devices are connected to the Internet and device visualization is moving forward, and expressed his intention to further promote the use of MECHATROLINK.



Takuya Miwa  
General Secretary of  
the MMA

After President Ogasawara's speech, General Secretary Takuya Miwa delivered a report on activities in FY2014 and plans for FY2015. This was followed by the financial report for FY2014 and a proposed budget for FY2015 by the secretariat, as well as a report on technology working group activities in FY2014 and plans for FY2015 by each leader of the Marketing Group and the PC Engineering Group.

## Three Special Lectures Directly Linked to MMA's Theme of FY2015

Choi Sung-Hyuk of AJINEXTEX CO., Ltd. in Korea was invited as the first speaker at these special lectures. He gave a lecture

on "Robot Industry Trends in Korea and Case Studies on Joint Development with MMA/Yaskawa Electric Corporation". In his lecture, he also introduced the MECHATROLINK-compliant communications module that is best suited for PC-based controllers, talked about AJINEXTEX's experience in developing and marketing products configured with FPGAs and IP cores from different companies, and explained the need for the Korean government and major companies to use robots in order to adopt IoT (Internet of Things) and Industrie 4.0 technologies.



Choi Sung-Hyuk  
AJINEXTEX CO., LTD.

The second speaker, Kenkichi Araki of SoftBank Mobile Corp. gave a lecture on "Anticipating Business and Future Global Development of Society Created by IoT/M2M, Humanoid Robot Pepper, and". In his lecture, he talked about their company's approach to the rapidly expanding M2M market, offered examples on the application of M2M, and introduced seven keywords for the expansion of IoT. He also introduced the company's IoT business using examples of collaboration with other companies and their own original business initiatives.



Kenkichi Araki  
SoftBank Mobile Corp.



General meeting



Masashi Murakami  
VEC

The third speaker, Masashi Murakami of Virtual Engineering Company & Virtual End-user Community (VEC) gave a lecture on "World Created by 'Industry 4.1J', One of Japan's Strongest Fields". In his lecture, he pointed out that network security is the most urgent issue facing Industry 4.1J and highlighted possible solutions in an easy-to-understand way.

The three special lectures focused on the themes of IoT business and Industrie 4.0 as well as information security, which are all areas that the MMA will focus on in the future. Both MMA members and other people in various fields were greatly interested in these lectures, which was one of the reasons for the success of the general meeting. We are sure that all the participants discovered clues about global product development and business development through the lectures.



Display of new MECHATROLINK products

## Bridge to Information Exchange and Collaboration among Members

After the lectures, three MMA member companies introduced their new MECHATROLINK products, and the meeting ended successfully.

During breaks and the reception, the participants took advantage of the only opportunity during the year where all MMA members can gather to actively exchange information. We expect that the network of members created via the MMA will bring about results, such as joint proposals on solutions. Throughout the meeting, we could once again appreciate the deep interest of all MMA members on the MMA activities, as well as the progress and increasing need for MECHATROLINK. We will set up opportunities to strengthen information sharing and linkages among the MMA members, such as seminars and information exchange meetings. The MMA will actively work to promote the use of MECHATROLINK around the world, with particular focus on the Asian region.

## News & Topics

### Introduction of MECHATROLINK-compliant Product Demonstration Units

### YASKAWA ELECTRIC (CHINA) Shanghai Robot Center and Solution Center

Yaskawa Electric (China) Co., Ltd. has several showrooms in China. The showroom in Shanghai, which was established on December 17, 2014, is the largest of its kind in Asia. It contains a Robot Center to demonstrate the specific applications of robots, as well as a Solution Center for technical support and education. Units to demonstrate a variety of MECHATROLINK applications are also displayed on each floor. In this edition, we introduce two examples of the showroom's displays, key features, and some comments from the person in charge of each center.

#### Shanghai Robot Center: Handling Robot System between Press Working Machines

The unit demonstrates the handling process between press working machines using three new 6-axis MOTOMAN-MH12 robots. Two press working machines and servo drives used for the peripheral devices are controlled via MECHATROLINK to coordinate movements with three MOTOMAN robots. High-speed, high-precision press work can be achieved even for press working machines with short widths.

##### ■ Comment from Technical Senior Manager of Robot Business Management Department.

In China, many manufacturers and users require high-quality and value-added robot systems. At the Robot Center, we demonstrate various robot systems and offer solutions to meet these needs. Our customer's needs and problems are all unique. We hope that the Robot Center can help all customers find clues for solutions and lead to customer satisfaction.



#### Shanghai Solution Center: Total Solution Demo Unit

This unit demonstrates a complete automation system. Workpieces are carried on an inverter-driven conveyor belt, followed, picked up, and placed on a table by a servo-driven Cartesian coordinate robot. Next, an articulated robot handles the workpieces on the table to assemble them in formations that have been specified by visitors to the center. The high-speed and high-accuracy motions are achieved by connecting all control devices (Yaskawa's servo drives, inverters, and robots) to a master motion controller through MECHATROLINK.

##### ■ Comment from Technical Managers of Motion Control Division and FA System Division.

In addition to our efforts to satisfy our customer's needs, we are engaged in activities in collaboration with educational institutions, including transfer of Japanese technologies and Monozukuri traditions, to raise the interest of young people on production, and to help them expand these interests to develop new business. We wish to support the future business endeavors of young people everywhere.



## Exhibition & Event Information

### TECHNO-FRONTIER 2014

#### Event Information

**Dates:** August 26 (Wed) – 29 (Sat), 2015

**Place:** Taipei World Trade Centre, Nangang Exhibition Hall (TWTC Nangang), 4th Floor

**No.1, Jingmao 2nd Rd., Nangang District, Taipei, Taiwan**

**Booth No.:** M612

**Official HP:** <http://www.autotaiwan.com.tw/>



#### MMA Participants:

• ALGOSYSTEM CO., LTD.	• ANYWIRE CORPORATION	• Art Control System, Inc.	• Azbil Corporation
• Digital Electronics Corporation	• KEYENCE CORPORATION	• LNC Technology Co., Ltd.	• Micronet Co.
• M-System Co., Ltd.	• NIKKI DENSO Co., Ltd.	• ORIENTAL MOTOR CO., LTD.	• YASKAWA ELECTRIC CORPORATION
• YASKAWA INFORMATION SYSTEMS Corporation	• YOKOGAWA ELECTRIC CORPORATION		

## Report of Exhibitions & Seminars

### Industrial Open Networks Fair 2015

The MMA participated in the Industrial Open Networks Fair 2015 held in Osaka on July 7 (Tue), 2015 and in Tokyo on July 9 (Thu), 2015. This year was the fourth time that the fair has been held. The number of participants was the highest ever with 10 network-related organizations and 48 supporting companies gathered to introduce the advantages of the networking systems and network-related products of each organization and company.

At the MMA exhibit, we introduced examples of applications with the latest MECHATROLINK products connected, and showcased the rich lineup of multi-vendor products and the advantages of MECHATROLINK.

We also organized a MECHATROLINK seminar and spoke about “Innovation in Productivity by Combining and Utilizing both IoT and MECHATROLINK Technologies”. Many participants showed great interest in the ways such innovation can be adopted and modified in Monozukuri production sites. More than 200 people visited the MMA exhibit and attended the seminar.



MECHATROLINK seminar in Osaka



Fair in Osaka



MECHATROLINK seminar in Tokyo



Fair in Tokyo

### Asia Monozukuri Conference 2015 in Vietnam

The MMA participated in the “Asia Monozukuri Conference 2015,” which was organized in Ho Chi Ming City, Vietnam on July 23 (Thu), 2015. This event, which started in 2014, has been held in various Asian countries. This year, the conference’s theme of “Innovation in the Automobile Industry” was enhanced with the addition of a focus on “Innovation in the Electronics Industry.”

This conference in Vietnam included three sessions: Management Innovation, Factory Innovation, and R&D Innovation. A total of nine major Japanese-affiliated manufacturers and local companies gave lectures. The lectures contained valuable information and the opinions of different industries from various points of view, including the current state and issues of Monozukuri at each production site. Products of supporting companies were displayed on the same floor as the conference room. The MMA booth was popular and received more than 100 visitors.

This conference is scheduled to be organized in September in Jakarta, Indonesia, in October in Bangkok, Thailand, and in December in Chennai, India. The MMA will participate in these conferences to promote the use of MECHATROLINK in ASEAN countries.



Venue for the Conference



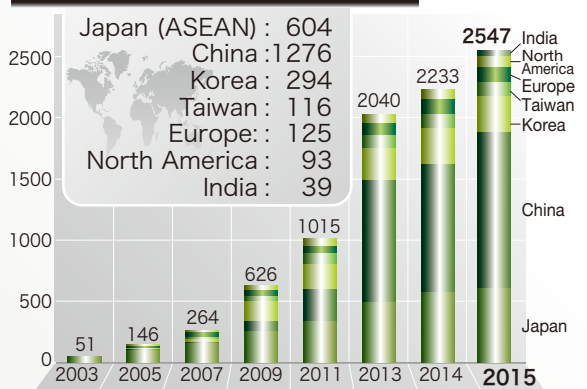
Conference in Vietnam

## MMA Membership Tops 2,500 Companies! Over 1,200 Chinese Members

The number of MMA members exceeded 2,500 companies in July 2015. The number of members has grown since membership was opened to the public in 2003. The association grew to 1,000 member companies in 2011 and 2,000 companies in 2014, mainly from the Asian region, as the market demand for highly-functioning, highly-performing, and highly-reliable devices has increased. A year and a half later, over 500 new members have joined. Setting a target to position itself as the de facto motion network, the MECHATROLINK was adopted as an international standard (IEC61158/IEC61784) in August 2014 and is strengthening its activities not only in Asia, but also in ASEAN nations and India where future market expansion is expected. The MMA established an India chapter in July 2014, and is conducting dynamic expansion activities, including the organization of events in each ASEAN country.

In recent years, the demand for highly functioning, highly performing and highly reliable devices has grown. Due to major changes in the market environment such as IoT, M2M, and Industrie 4.0, the network has been the focus of much attention. The MMA stands ready to implement more detailed solution proposals than ever in cooperation with the MMA board companies and member companies. One such proposal is the innovation of productivity by integrating IoT/M2M with MECHATROLINK using MECHATROLINK’s message communications function.

#### MMA Membership as of April 30, 2015



## New MECHATROLINK Products

ORIENTAL MOTOR CO., LTD.

### “MECHATROLINK-III Compatible Stepping Motor $\alpha$ STEP AZ-Series Multi-axis Driver”

#### Features

- MECHATROLINK-III compatible 2-, 3-, and 4-axis connectable multi-axis stepping motor driver.
- Capable of controlling closed loop stepping motor unit  $\alpha$ STEP AZ-series DC power input- type motor and various actuators equipped with AZ-series motor.
- Battery not required because a mechanical absolute sensor is equipped to manage position information.  
Shortens machine cycle time, improves reliability, saves space, and reduces cost because no external sensor is required.



AZ-series

#### Inquiries

ORIENTAL MOTOR CO., LTD.

4-8-1 Higashi-ueno, Taito-ku, Tokyo, Japan 110-8536

Tel: +81-3-6744-0411, Fax: +81-3-5826-2571, URL: <http://www.orientalmotor.co.jp>

#### Column

### Introduction of MECHATROLINK-III Demonstration Units: Data Visualization Demo Unit

The MMA prepared units to demonstrate the features of MECHATROLINK.

In this edition, we introduce a unit that demonstrates data visualization through message communications, which is one feature of MECHATROLINK-III.

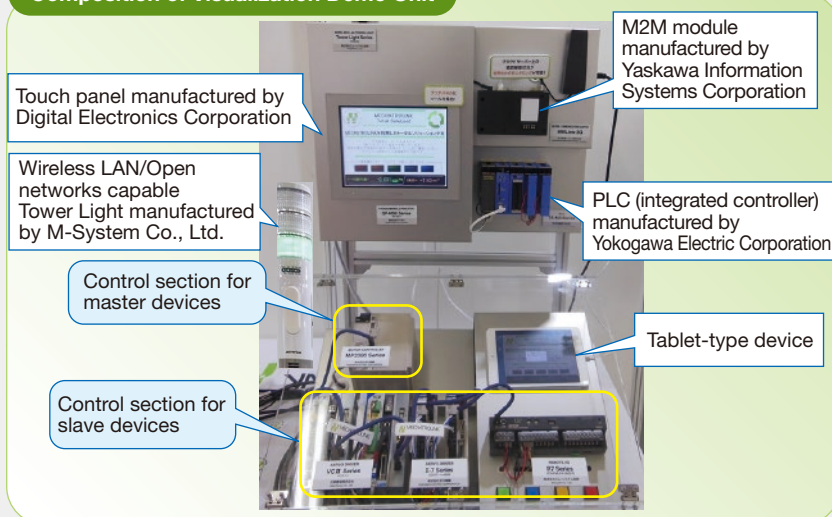
#### Advantages of data visualization

- ① **Collection of Internal data from slave devices by using message communications.**  
Large amounts of data can be sent and received without disturbing real-time motion control.
- ② **Direct data transmission between slave and host devices by using the message relay mechanism**  
Data can be directly transmitted between slave devices and host devices, such as displays and touch panels, without placing a load on the master device.

#### Features of data visualization demo unit

Data visualization allows you to remotely monitor device state and adjust parameters on your PC or tablet-type device by transferring data transmitted through message communications and the message relay function via M2M module/Wi-Fi module.

#### Composition of Visualization Demo Unit



Do you want to construct a system that uses IoT and M2M technologies?



Use the message communications and relay functions to connect a general-purpose Ethernet device and use IoT and M2M technologies with the MECHATROLINK-III system.

#### Editor's Comment

This volume is the final edition of MECHATROLINK News MMA-FLASH. We thank you for the strong support and special attention you have extended to us throughout the years of publication of the MMA-FLASH. We promise to provide you with more information than ever by expanding the contents of the MMA website. Written by Hiranuma

#### Inquiries

For questions about joining MECHATROLINK Members Association and other inquiries, please contact the MMA.

Issued: August 20, 2015

Publishing Office: MECHATROLINK Members Association

480 Kamifujisawa, Iruma, Saitama, 358-8555 Japan

Tel: +81-4-2962-7920 Fax: +81-4-2962-5913

e-mail: [mma@mechatrolink.org](mailto:mma@mechatrolink.org)

URL: <http://www.mechatrolink.org/>