

In this issue, an LMAG-Tokyo General Assembly, IEEE Milestone events (a dedication ceremony and commemorative lectures), an R10 LMAG meeting, and the 2nd Tokyo Section lecture are reported.

1. LMAG-Tokyo Annual General Assembly

The 2021 LMAG-Tokyo General Assembly was held on WebEx, from 14:10 to 14:40, March 25, Thursday, 2021. The assembly was presided by Dr. Hayashi, Secretary. At the beginning, it was reported that the 11 participated, 21 attended online, and other 666 LMAG-Tokyo members entrusted the executive. After the officers for 2021 (Dr. Imai, Chair, Dr. Ohta, Vice Chair, and Dr. Hayashi, Secretary) introduced themselves, Dr. Imai, Chair, gave an address and continued the discussion as the chair on the following agendas.

Agenda 1 : Appointment and Replacement of Officers in 2021

Dr. Ohta, Vice Chair, reported the appointment and replacement of officers as follows:

Chair: Hajime Imai

(Former Professor, Japan Women's University)

Vice Chair: Naohisa Ohta

(Former Professor, Keio University)

Secretary: Takatoshi Shindo (Formerly with Central Research Institute of Electric Power Industry)

Since Dr. Shindo, Secretary, retired due to circumstances, the following replacement officer was appointed on February 19, 2021.

Secretary: Hideki Hayashi

(Technology Strategy Center, NEDO)

Agenda 2 : Report on the 2020 LMAG-Tokyo Activities

Dr. Ohta, Vice Chair, reported the following events pursued in 2020.

- 2020 LMAG-Tokyo General Assembly (April 3) and Board of Directors

- Seven lectures sponsored or co-sponsored by LMAG-Tokyo were held mainly online, with a total of 813 participants.

- Regarding the tour, tours related to IEEE Milestone (Shinkansen Museum and Railway Technical Research Institute) and a technical site tour (ANA Airplane Maintenance Factory) were planned, but the implementation was postponed for preventing the spread of Covid 19 infection.

- Holding a symposium commemorating the 10th anniversary of the establishment of LMAG-Tokyo

The above symposium was held on October 8, 2020 (Thursday), and after the lectures by Dr. Kohei Habara, the first LMAG-Tokyo Chair, and Dr. Tadashi Takano, LMAG-Tokyo Chair, we looked back on the activities of 10 years and held a panel discussion on the development of future activities. LMAG-Tokyo celebrated the 10th anniversary with the IEEE Day.

- Holding the 1st JC's LMAG Joint Committee

On December 18, 2020, JC's LMAG jointly held an online joint committee for the purpose of exchanging opinions and socializing. A total of 20 people participated.

- LMAG Evening Salon (4th)

An evening salon with Dr. Dai Hisamoto (Hitachi) as a lecturer was planned, but it was postponed preventing the spread of Covid 19 infection.

- Other events include participation in R10 SYWL Congress, participation in IEEE Towers Workshop, participation in Japan SYWL Workshop in Hiroshima, participation in technical information lecture by LMAG-Nagoya, and participation in Tokyo / Shin-etsu Joint Section WIE kick-off events, etc.

- The LMAG-Tokyo Newsletter

The Newsletter was published three times a year and posted on the website.

- LMAG-Tokyo Home Page

The home page has been improved.



Fig.1 LMAG-Tokyo General Assembly (from left : Dr. Ohta, Vice Chair, Dr. Imai, Chair, and Dr. Hayashi, Secretary)

Agenda 3 : Activity Plan for 2021

Dr. Hayashi, Secretary, explained the following contents as an activity plan for 2021.

- 2021 LMAG-Tokyo General Assembly (March 25)
- Officers: The activities of LMAG-Tokyo in 2021 will be promoted by the new organization, Chair: Dr. Hajime Imai, Vice Chair: Dr. Naohisa Ohta, and Secretary: Hideki Hayashi.

- Lecture Meetings and Technical Tours

Lectures (sponsored or co-sponsored) are planned more than 4 times. Technical tours to industrial sites and to an IEEE Milestones related site, and an evening salon are planned.

- Promote participation and exchange with other branches and other Affinity Group events, such as holding the LMAG Joint Committee under JC, which started last year.

- LMAG-Tokyo Newsletter will be published at least three times a year and will be distributed to LMAG members by e-mail attachment and posted on the Web.

- Work with the Publication Committee of IEEE Tokyo Section to improve the LMAG-Tokyo Home Page.

All the agenda items were deliberated, and after a Q&A session, all were approved, and the LMAG-Tokyo general meeting was successfully completed.

2. IEEE Milestone Dedication Ceremony

The 'Physical Contact Push-Pull Technology for Fiber Optic Connectors' proposed by Nippon Telegraph and Telephone Corp. (NTT), was certificated as IEEE Milestones. The Dedication ceremony was held by IEEE Tokyo Section at 10:30 to 11:00 on March 5, 2021 in hybrid style where the relevant persons from IEEE and NTT attended in the hall of Palace Hotel, Tokyo and the others were online. Altogether, there were 271 attendees.

The ceremony was chaired by Dr. M. Shigematsu, Secretary of IEEE Tokyo Section, Chief Engineer of Sumitomo Electric Industries, Ltd. At first, Dr. Y. Nakano, Chair of IEEE Tokyo Section, Prof. University of Tokyo, addressed on behalf of the host. It was explained that the milestones number 211 in the whole world, 37 in the whole Japan and 24 in the territory of IEEE Tokyo Section to which a milestone is newly added in this ceremony. Then, Prof. T. Fukuda, Past President of IEEE made a congratulatory address. Mr. H. Shinohara, Chairman of NTT, made a gratitude address on behalf of the awardees. He was once engaged in the development of the fiber connectors. Prof. Fukuda presented the commemorative plaque to Mr. Shinohara.



Fig. 2 Prof. Fukuda presented the commemorative plaque to Mr. Shinohara.

3. Commemorative Lecture Meeting

Two lectures sponsored by IEEE Tokyo Section TPC and co-sponsored by LMAG-Tokyo, were given at 11:00 to 12:00 on March 5, 2021 in the same hybrid style. The participants were 271 in number.

(1) Dr. Etsuji Sugita (Hakusan, Inc. Adviser, Former Research Director of Electronic Device Research Department, Boundary Region Research Laboratory, NTT)

Dr. Sugita gave a speech entitled 'Development and Promotion Activities of Subscriber Connector (SC)'. Around 1981, due to the growing optical fiber networks, the low loss connection between the optical fibers was indispensable, where simply detachable push-pull connectors were required. At the first stage of the fiber connection, the matching oil was introduced into the space of two fibers. The use of the matching oil was not suitable at the field operation because the dust was easily contained in the oil. The physical contact was investigated instead of the matching oil. To realize the physical contact, the wrapping and polishing were done to the surface of the fiber with the ferule to derive the concave surface and occur the cause reflection. The convex



Fig. 3 Dr. Sugita giving a commemorative lecture.

surface was made to realize the ideal physical contact. The SC was successfully completed. In 1982, the standardization committee recognized SC as the world-wide standard.

(ii) Dr. Shinji Nagasawa (Former Senior Researcher of the Optical Access Network Project, Access Network Service Systems Laboratory, NTT)

Dr. Nagasawa gave a speech entitled 'Development & Promotion Activities of Multiple Fiber Push-On/Pull-Off (MPO) Connector.' When the fiber systems were introduced into the subscriber network, a fiber cable with 1000 fiber cores would be used. The fiber connection using SC one by one is to be exceptionally large size and makes it the boredom operation. The novel connector for multiple core fiber was expected with the single operation. The number of multiple cores was 8 to 12. The size of this connector was as small as possible. Therefore, the accuracy of alignment should be less than $0.2\mu\text{m}$ and the difference of thermal expansion be minimized. The novel material of the loose abrasive was adapted, and its utility was verified. The stable coupling was confirmed after 100 times push/pull examination test. In 2014, this MPO connector was certificated as the world-wide standard.



Fig. 4 Dr. Nagasawa giving a commemorative lecture online.

After the presentation, there were questions and the meetings ended.

4. R10 LMAG Meet Report

A meeting named R10 LMAG Meet was held online using WebEx at 15:00~18:00 on Feb. 23 (JST) where R10 LMAG chairs and relevant people including R10 LMC members gathered. The participants were 28 in number including 14 out of 16 LMAGs in R10. Three officers from LMAG-Tokyo and Dr. Takano JC LMAG coordinator participated in the meeting.

At the beginning, Mr. Mathur, R10 Director, delivered an inaugural address and opened the Meet for discussion. Mr. Asthana, Chair, R10 LMC, gave information and requests to LMAGs and each LMAG introduced its 2021 planning and budget followed by a variety of Q&As and discussions. The topics included 2021 budget issues, necessity of report filing

using vTools, application information for LMAG Outstanding Achievement Award 2021, and a guideline for establishing a new LMAG. It was recommended that we better have 25-30 members to keep an LMAG active although we can establish a new LMAG with six members. The meeting lasted about 3 hours and successfully provided a good opportunity for the participants to share the activity and new trend of LMAGs in R10.

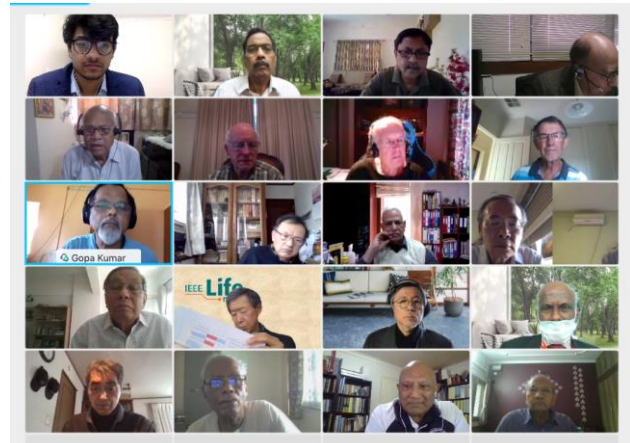


Fig. 5 Screenshots of participants (Captured from WebEx)

5. Lecture hosted by Tokyo Section (co-sponsored by LMAG-Tokyo)

This lecture was held after the IEEE Tokyo Section General Assembly (co-sponsored by the LMAG-Tokyo) held on March 25, and the lecturer was Professor Masaru Kitsuregawa, Director of the National Institute of Informatics and Special Counselor of the President of the University of Tokyo. The title of the lecture was "On the receipt of IEEE Innovation in Social Infrastructure Award and our current efforts on University Education". There were 16 participants at the venue and 50 online, for a total of 66 people.



Fig. 6 Prof. Kitsuregawa giving a lecture.

Professor Kitsuregawa specializes in database engineering and has been conducting pioneering research on the theory and application of large-scale high-performance database systems. The ultra-high-speed database engine based on the non-sequential execution principle, which was recently devised, has achieved a dramatic speedup of over 1000 times that of the conventional method in big data processing. It has been put to practical use in the industrial world. By using it for high-speed analysis of the receipt database, it leads to the derivation of medical knowledge and the planning of medical measures in local governments. On the other hand, real-time rainfall information service and river telemetry by the global environment information platform called DIAS (Data Integration and Analysis System), which has been built for 37 years, have been carried out. There are also long-term tasks that create value through continuous maintenance such as language web archiving, which has been continuously collected and built for 21 years. Prof. Kitsuregawa explained these jobs in a gentle and easy-to-understand manner using the Kansai language where he was born and raised.

After the lecture, a panel discussion on the importance of databases was held with the participation of Nakano, Chair and Higaki TPC Chair from the Tokyo Section.



Fig. 7 Panel discussion

(from left : Dr. Higaki, Prof. Nakano, and Prof. Kitsuregawa)

6. Future Events

The following events are planned carefully considering the prevention of Covid-19 infection. Information will be sent out via e-mails or updated on the Web site as soon as fixed.

Lecture Meeting (sponsored by LMAG and TPC of IEEE Tokyo Section)

- Date & Time: To be Determined
- Lecture Content: Planned on Power Systems

Technical Tour associated with IEEE Milestone (Sponsored by LMAG and TPC of IEEE Tokyo Section)

- Date & Time: To Be Determined
- Venue: Shinkansen Museum and Railway Technical Research Institute

Technical Tour (Sponsored by LMAG and TPC of IEEE Tokyo Section)

- Date & Time: To Be Determined
- Venue: ANA Airplane Maintenance Facility (Haneda Airport)

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