



2017 Asia-Pacific International Symposium on EMC (APEMC), Seoul, Korea, June 20-23

Reported by Seungyoung Ahn, Symposium Secretary

The 2017 Asia-Pacific International Symposium on Electromagnetic Compatibility (APEMC 2017) was successfully held on June 20-23 at the Commons, Yonsei University, Seoul, Korea. The APEMC 2017 was organized by Yonsei University and the Korea Advanced Institute of Science and Technology (KAIST). The Symposium was technically supported by the IEEE EMC Society and the Korean Institute of Electromagnetic Engineering and Science (KIEES).

Prof. Joungho Kim (General Chair), Dr. Jaekon Shin (General Co-Chair), Prof. Wansoo Nah (Advisory Committee Chair), and Prof. Jong-Gwan Yook (Technical Program Committee - TPC - Chair) led the organizing committee for the success of APEMC 2017.

The APEMC 2017 Symposium received 202 papers from 17 countries. Through strict review, 163 high quality papers were accepted and presented at the Symposium. The APEMC 2017 attracted a total of 415 attendees from 21 countries.

Opening Ceremony and Keynote Speeches

In the morning of June 21, Dr. Jaekon Shin, the General Co-Chair, delivered an address and declared the opening of the APEMC 2017 Symposium. Prof. Jaiyong Lee, the Vice President of Yonsei University, and Prof. Bomson Lee, the Vice President of KIEES, delivered congratulatory speeches.

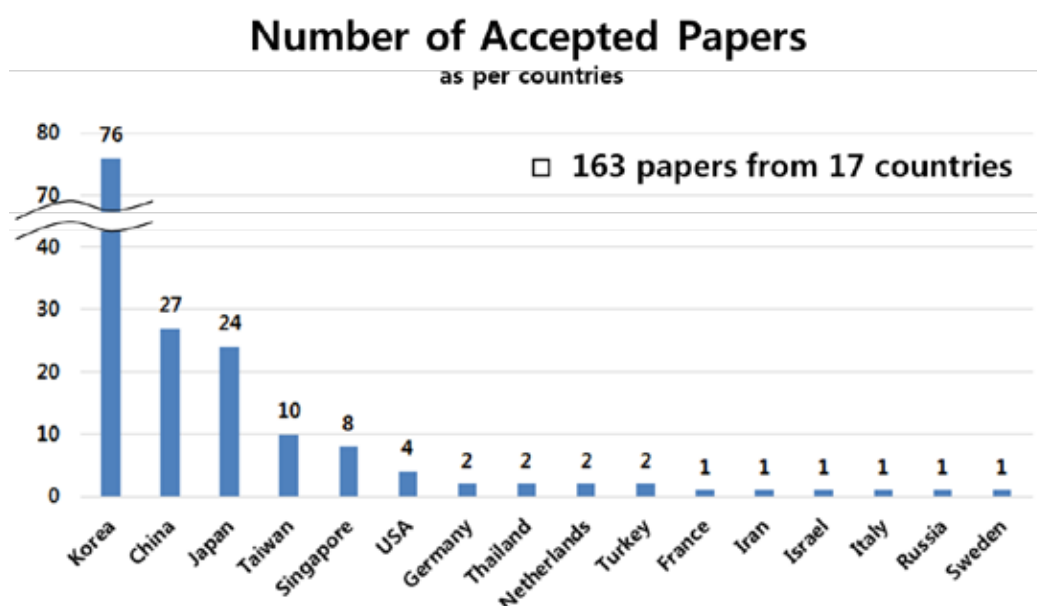
The first keynote speaker, Prof. Christian Schuster (Hamburg University of Technology, Germany), addressed the electromagnetic integrity of the digital society. His impressive speech was very meaningful in looking back the past EMC and forecasting the future of EMC technologies. The second keynote speaker, Prof. (MD., Ph.D.) Young-Hwan Ahn (Ajou University, Korea), introduced the biological effect of electromagnetic fields and reviewed the research findings including electromagnetic devices for a tumor-treating field. Since the development of biomedical electronic systems is a new big trend, his speech also attracted much attention from the audience.

Welcome Reception

The welcome reception was held in a beautiful traditional Korean house in the middle of Seoul on June 20. After the brief opening address of Prof. Joungho Kim, the General Chair of APEMC 2017, delicious traditional Korean foods and drinks were served for all the attendees to relax and enjoy the social communications. The performances of the professional Samulnori players, lady drummers, and traditional dance were an enjoyable part of the welcome reception.

Tutorials and Workshops

The tutorial sessions were open all day long on June 20. The tutorials covered the area of fundamental EMC engineering, sig-



Breakdown of all accepted papers according to countries.



Dr. Jaekon Shin, Symposium General Co-Chair, declared the opening of APEMC 2017.



Prof. Jaiyong Lee, the Vice President of Yonsei University, delivered the congratulatory address.



Prof. Bomson Lee, the Vice President of KIEES, delivered the opening address.

nal/power integrity, power EMC, standards, metamaterial, and technical paper writing. Mr. Mark Montrose (Montrose Compliance Services), Prof. Hideki Asai (Shizuoka University), Prof. Gunter Keller (Deggendorf Institute of Technology), Mr. Donald Heirman (Don HEIRMAN Consultants), Dr. William A. Radasky (Metatech Corporation), Dr. John Norgard (NASA), and Prof. Sungtek Kahng (Incheon National University) served as the organizers and chairs of the tutorial sessions. All the speakers were the best researchers in their field, and the lectures were very fruitful for EMC beginners or students as well as the long-experienced professionals.

The workshop sessions were opened on June 23. The hot topics on testing of wireless devices, computational electromagnetics, EMC standards, automotive EMC, protection from HEMP/IEMI, standard measurements, and space charging were presented. Alex Yeo (ETS-Lindgren), Prof. Wen-Yan Yin (Zhejiang University), Zhong Chen (ETS-Lindgren), William A. Radasky (Metatech), Prof. Osami Wada (Kyoto University), and Bryon Neufeld (Electro Magnetic Applications) served as organizers and chairs of the workshop sessions.

Technical Sessions

The topics of the technical sessions included EMC Measurement and Instrumentation, Electromagnetic Environment, Transient EMC, Power System EMC and Smart Grid, System Level EMC and Protection, Transportation EMC, Antenna and Wave Propagation, EMC in Nanotechnology and Advanced Materials, Aerospace EMC, Electronic Packaging EMC, Integrated Circuit EMC, Signal Integrity and Power Integrity, Wireless Communication EMC, Computational Electromagnetics, Biomedical Electromagnetics, and Wireless Power Transfer.

The Symposium venue, the Commons in Yonsei University, was recently constructed as a modern style underground building with very convenient and useful facilities. Four parallel sessions were conducted for oral presentations on June 21 and 22.

Banquet and Best Paper Awards Presentations

The banquet of APEMC 2017 was held in the Grand Ballroom of the Commons, Yonsei University. To start the evening, Prof. Jounggho Kim,



Prof. Christian Schuster delivering the keynote speech on signal and power integrity in EMC.



Prof. Young-Hwan Ahn introducing research on the biological effect of electromagnetic fields.

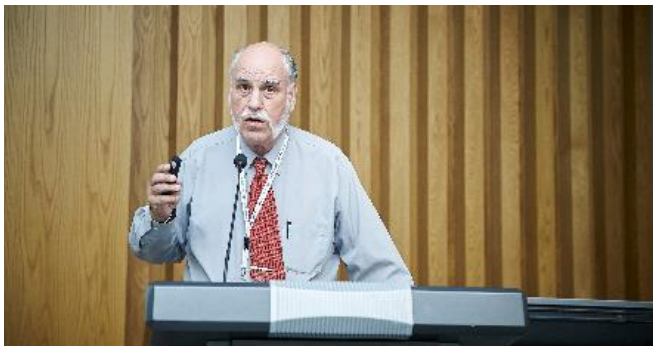


Prof. Jounggho Kim (left), General Chair, and Prof. SoYoung Kim, Local Arrangements Chair, addressing the participants at the welcome reception.





The performance of Korean traditional drummers and dancers at the welcome reception.



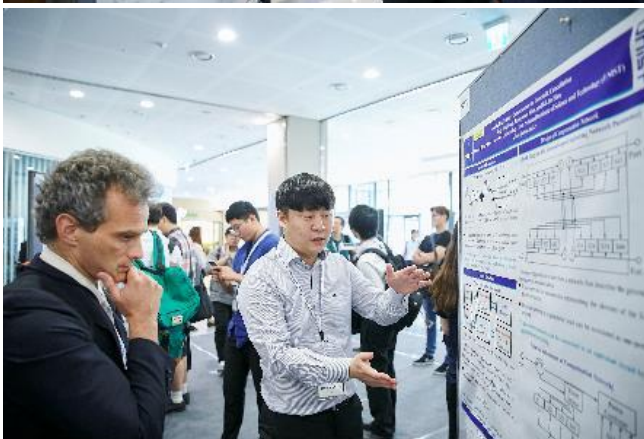
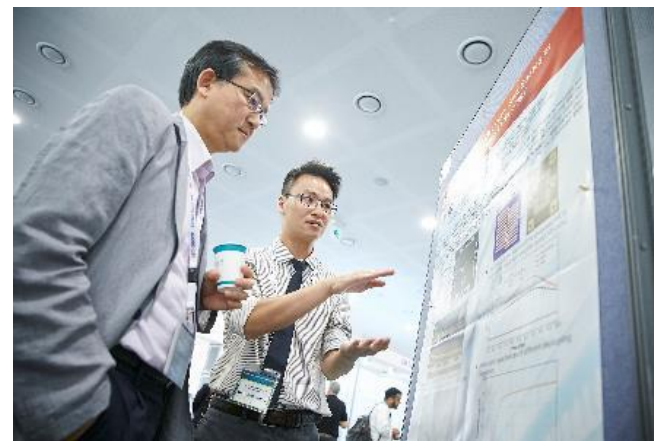
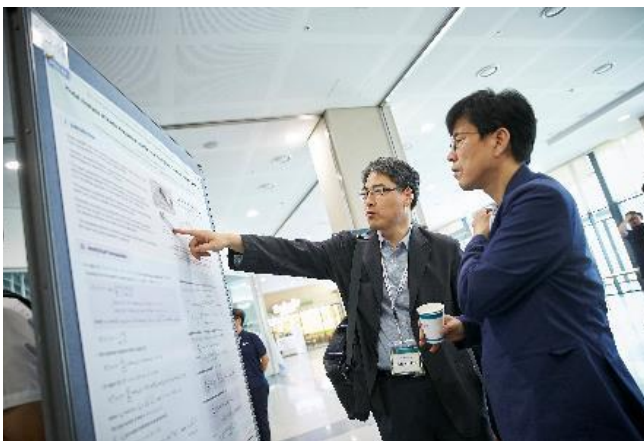
The organizers, chairs, and speakers of the tutorial session significantly contributed to APEMC 2017.



The workshop topics on testing, standards, EMP, automotive, and space charging received great attention from industry and academia attendees.



The state-of-the-art technologies were presented and passionate discussions were conducted in the technical sessions.



The display of poster papers was well organized with active discussions continuing during all poster sessions



Prof. Jounggho Kim, the General Chair of APEMC 2017, expressed appreciation to all the attendees.



Prof. Chulhun Seo, the President of KIEES, delivered the address at the Banquet.



Prof. Jong-Gwan Yook, the TPC Chair, summarized the conference achievements.



"Tatles", the Beatles tribute band, gave an impressive performance at the Banquet.



The best papers were strictly selected by the Award Chairs based on the review scores. A total of 12 awards including Best Paper Awards, Best Poster Paper Awards, and Best Student Paper Awards, were presented at the Banquet.

the Symposium General Chair, gave a welcome speech and expressed his appreciation to all the attendees of APEMC 2017. Prof. Chulhun Seo, the President of KIEES, gave a speech recognizing the success of the Symposium. This Symposium could not be successful without the huge support of industry. Mr. Daeho Ham from Polliwog, Mr. Kenneth Goh from Rohde & Schwarz, and Mr. Mike Alferman from AR were thanked as the representatives of the industry sponsors. Prof. Jong-Gwan Yook, the TPC Chair, summarized the statistics of the Symposium achievements and thanked all the contributors. "Tatles", the Beatles tribute band, gave a great performance of Beatles songs for all the participants.

In the middle of the Banquet, there were Best Paper Award presentations. The Best Paper Awards were presented to Mr. Yuta Inoue (Shizuoka University, Japan), Prof. Yunsil Lee, (Ewha Womans University, Korea), and Prof. Chulsoon Hwang (Missouri University of Science and Technology, USA). The Best Student Paper Awards were presented to Fei-Fan (Nanyang Technological University, Singapore), Nobuhiro Kimura (Tokyo University of Science, Japan), Sungwoo Lee (Sungkyunkwan University, Korea), Di Wang (Zhejiang University, China), and Sangyeong Jeong (Ulsan National Institute of Science and Technology, Korea). Finally, the Best Poster Paper Awards were presented to Mr. Weinong Sun (City University of Hong Kong, China), Prof. Yoon Do Chung (Suwon Science

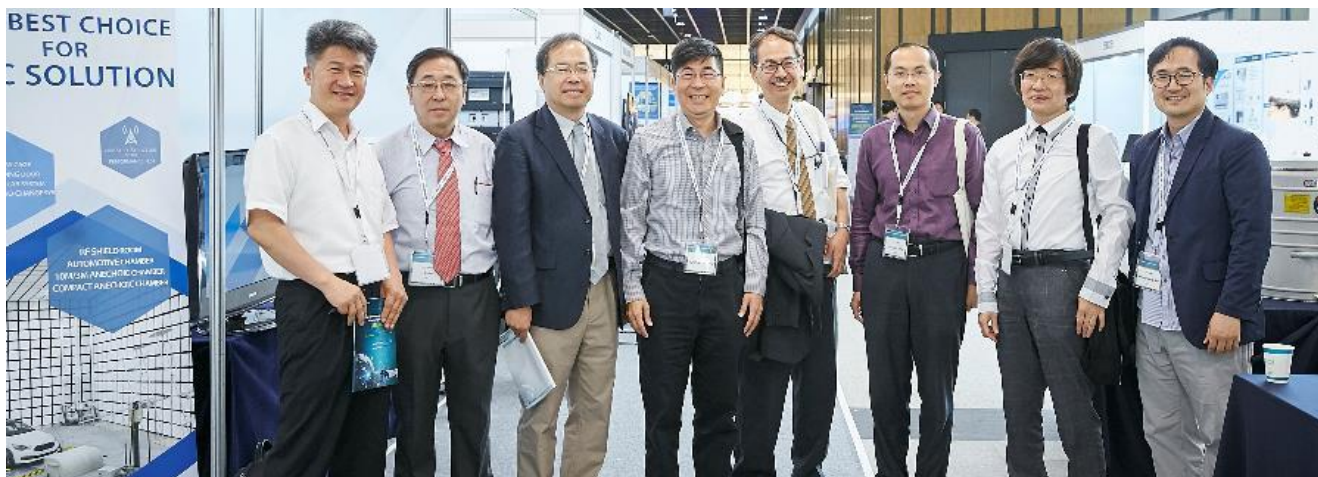
College, Korea), Prof. Hyun Ho Park (The University of Suwon, Korea), and Mr. Yin-Cheng Chang (National Applied Research Laboratories, Taiwan).

IEEE Chapter Chair Meeting and APEMC International Steering Committee Meeting

An IEEE EMC Society Chapter Chair Meeting was held in Murray Hall in the Commons, Yonsei University. The chapter chairs shared the status of their respective activity and discussed some issues under the moderation of Dr. Vignesh Rajamani. Also, there was the APEMC International Steering Committee Meeting held at Allen Hall in Yonsei University to discuss the future APEMC Symposium. APEMC 2018 in Singapore will be held jointly with the 2018 IEEE EMC+SIPI Symposium, and the plan of the next APEMC 2019 in Sapporo, Japan is currently being planned by Prof. Sone and Prof. Wada.

In the afternoon of June 23, the APEMC 2017 successfully finished. The APEMC 2017 Symposium played the important role to share technologies to find solutions, to deepen an understanding of the technologies, and to encourage young EMC engineers. The success of APEMC 2017 will be continued next year to the joint IEEE EMC and APEMC in 2018. See you all again in Singapore!

EMC



Key members of the APEMC Symposium and International Steering Committee included (from left) Prof. Jonghoon Kim, Prof. Er-Ping Li, Prof. Joungho Kim, Prof. Tzong-Lin Wu, Prof. Osami Wada, Prof. En-Xiao Liu, Prof. Hideaki Sone, and Prof. Seungyoung Ahn.



In the afternoon of June 23, the APEMC 2017 successfully finished. The APEMC 2017 Symposium played the important role to share technologies to find solutions, to deepen an understanding of the technologies, and to encourage young EMC engineers. The success of APEMC 2017 will be continued next year at the joint IEEE EMC and APEMC Symposium in 2018. See you all again in Singapore!