ICCE–Berlin Is Five Years Old!

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The 2015 IEEE International Conference on Consumer Electronics–Berlin (ICCE–Berlin), celebrating its fifth anniversary, was held 6–9 September on the Internationale Funkausstellung (IFA) show grounds in Berlin, Germany. ICCE–Berlin, first held in 2011, was modeled on the original ICCE held in Las Vegas. Stefan Mozar, the then IEEE Consumer Electronics (CE) Society vice president of conferences, planned a conference to be held in Europe. Prof. Hase from Japan suggested that the event be held close to IFA. Thus, the idea to host a conference in Europe was born, and Berlin became the host city. Messe Berlin, the organization that manages the IFA, has been very accommodating and helpful in bringing the ICCE to Berlin. In 2015, the IFA celebrated its 50th anniversary, making it the oldest CE show in the world.

For 2015, we took a different approach to ICCE–Berlin. First, we invited seven IEEE Societies and Councils, also known as Organizational Units (OUs), to join us. These OUs have fields of interest that are highly relevant to the CE Society. The OUs that participated were

▼ IEEE Life Sciences Technical Community
▼ IEEE Product Safety Engineering Society
▼ IEEE Cloud Computing

Table 1. The keynote presentations at ICCE–Berlin 2015.

Presenter	Topic	Country
Prof. K. Brandenburg, Frauenhofer Institute for Telecommunications, Heinrich Hertz Institute	"Audio Developments"	Germany
Brian Markwalter, CEA	"The Intersection of Health Care and Consumer Electronics"	United States
Dr. Thomas Gniadek, Noerr LL	"Do You No Longer Own Your Inventions?"	Germany
Prof. J. Guerrero, University of Aalborg	"Challenges in AC/DC Residential Microgrids"	Denmark
Prof. Frank Sabath	"Upcoming EMC Challenges"	Germany
Dr. Nahum Gershon, Mitre Corp.	"Life Sciences, Engineering, and Computer Technology"	United States
Philip Hall, The University of Melbourne	"Drones and Security"	Australia
Dr. Tom Coughlin, IEEE CE Society Future Directions chair	"The Future of Consumer Electronics"	United States
Lee Stogner, IEEE Transportation Electrification Committee	"The State of the Electric Vehicle Industry with Respect to Consumer Electronics"	United States

Table 2. The tutorials at ICCE–Berlin 2015.

Presenter	Topic	Country
Prof. K. Brandenburg, Frauenhofer Institute for Telecommunications, Heinrich Hertz Institute	"Audio and Acoustics Signal Processing: The Quest for High Fidelity Continues"	Germany
Dr. Susanne Wende, Noerr LL	"Product Liability Considerations"	Germany
Dr. Grois, Dr. Bross, Dr. Marpe, and Dr. Suehring, Frauenhofer Institute for Telecommunications, Heinrich Hertz Institute	"HEVC/H.265 Video Coding Standard Including the Range Extensions, Scalable Extensions, and Multiview Extensions"	Germany

- ▼ IEEE Electromagnetic Compatibility (EMC) Society
- ▼ IEEE Reliability Society
- ▼ IEEE Vehicular Technology Society
- ▼ IEEE Society for Social Implications of Technology (SSIT).

The OUs brought interesting and important material to our event. It is important not only to stay current in our own disciplines but also to keep abreast of developments in related fields that have an impact on our work. The OUs also brought experts to our event, to which we normally would not have access. They provided excellent keynotes and other contributions of interest to the CE community, including presentations on reliability, EMC issues, and automotive technology. The presentations provided content that is of interest to practitioners and helped to draw more people to the conference.

We built our program to cater to practitioners as well as academics. We had more than 140 research papers and posters. In addition, we had nine world-class keynote speakers, including one of the world's leading audio experts, Prof. K. Brandenburg. We had three very interesting, high-quality tutorials, two panel discussions, and a preconference program.

The preconference program started on Sunday and was designed for IEEE Young Professionals and Women in Engineering members. Of course, it was also open to anybody interested. It started with the presentation, "How to Avoid the Pitfalls of Starting a Technology Company." This session was well attended and included some interesting discussions from the budding entrepreneurs in the audience.

The Doctoral Workshop was held after lunch and was facilitated by Prof. Phil Hall from the SSIT and Prof. Ali Hellany from the University of Western Sydney. The Doctoral Workshop is a forum designed to provide postgraduate students the opportunity to discuss their research approach and any research challenges they are facing in a friendly and supportive environment. This is relevant for postgraduate students both at the beginning of their research and at an advanced stage.

The highlight for Young Professionals and Women in Engineering members was a sightseeing tour of Berlin by kayak, which was organized by Carsten Dolar, the Young Professionals chair, and Abdullah Almuttri. The participants expended a lot of energy; thus, to aid recovery, a pizza and beer dinner followed the tour.

The conference formally started on Monday with paper presentations followed by keynote presentations. The opening keynote speaker was Prof. Brandenburg, the "father of MP3." It was a very interesting presentation and can been seen online at www.youtube.com/ieeeCESocTV. In total, nine keynotes were presented (see Table 1), and they can be viewed on CESoc TV.

The keynotes were well received by conference delegates and covered a variety of topics that are very important to professionals in the CE industry. The keynotes were complemented by three high-quality tutorials (Table 2), which can also be viewed online.

Every good conference needs an opportunity for delegates to interact with experts on hot topics. Panel discussions provide this opportunity. We had two such discussions. The first was chaired by Dr. Tom Coughlin, and it was about the Internet of Things (IoT). The second, chaired by Dr. Gershon, had the theme "Will Mobile Health Make Us Healthier?" Both sessions were well attended and had active participation.

In total, more than 140 research papers and posters were presented. We had tours to TiME Lab (Heinrich Hertz Institute), which was on site at the conference. Delegates were also able to visit the IFA exhibitions. While our conference provides an insight into the future, the IFA shows what is hot in today's new products. It is worth spending some time visiting IFA exhibits and technical sessions.

The CE Society Health-Care Group announced a design competition. The goal is to design a low-cost vision system based around a home computer that assists people with a visual impairment in performing tasks like reading the newspaper, paying bills, and viewing photographs and other printed material. Details of this competition will be available on the CE Society website (cesoc.ieee.org).

Opportunities were provided to recruit new members and for members to get help in upgrading to senior membership.

As is tradition, we had a conference banquet. This allowed for time to mix and mingle with other delegates and enjoy a good German meal as well as some great wine and beer. The conference concluded with the presentation of the Best Paper awards.

We would like to thank the Berlin organizing team, the volunteer students, all keynote and tutorial presenters, the people behind and in front of the cameras (a camera crew, Victor and Sabina, from St. Petersburg, Russia. and our local photographer, Manfred Wassmann), and Jasmin Kayadelen and Charlotte Kobert, who supported us administratively.

This event would not have been a success without the support of the volunteers who serve on the technical program committee, the session chairs, and all the authors who submitted their work to our conference.

Special thanks to our long-term partners the ITG, which is part of the VDE and the German CE Chapter.

Seven IEEE Societies and councils participated in this conference. They added the "pinch of salt" that made this event so special. A big thank you goes to CE Society President Dr. Sharon Peng for providing support to this event and helping make it a success.

Last but not least, a big thank you to the team from Noerr LLP, who took time out of their busy schedule and came to participate in our event. This is greatly appreciated.

We are proud to be members of the ICCE–Berlin community, and we know many of you are also becoming "addicted" to this annual event and community. These first five years are certainly only the beginning of a long series of ICCE–Berlin conferences.