The tenth edition of the annual IEEE Energy Conversion Congress and Exposition (ECCE) will be held 23–210 September 2018, in Portland, Oregon. By at least one measure, this meeting has the expectation of being bigger than any of its predecessors. Based on reports by organizers, it has the potential to be even better than the previous embodiments of this popular conference.

The conference is well summarized on its home page by its general chair Dr. Avoki M. Omekanda, who is also a staff research engineer at the General Motors Global R&D Center in Pontiac, Michigan. According to Omekanda,

IEEE ECCE 2018 shares an insight into the recent research and cutting-edge technologies in electrical and electromechanical energy conversion, which gains immense interest with the exuberant presence of talented researchers, practicing engineers, and other professionals. ECCE is the world’s leading technical conference and exposition for energy conversion solutions. We bring together a multidisciplinary group of researchers, engineers, and scientists from all over the world to present and exchange breakthrough ideas relating to the energy conversion systems and technologies. ECCE is unique in our emphasis on integrated systems, presenting the best in applied integrated systems research together with innovations in individual energy conversion components.

As was the case last year, the conference is collocated with the IEEE Industry Applications Society (IAS) Annual Meeting. The preliminary schedule-at-a-glance, also on the website, shows little change from previous years; there are tutorials all day on Sunday, technical sessions mornings and afternoons Monday through Thursday, with no overlap between massively parallel oral sessions and poster sessions but substantial overlap between oral sessions and special panels. The schedule comes close to having something for everyone, all the time.

The plenary titles and presenters are shown in Table 1. Commenting on the plenary talks, plenary session co-chair Dr. Bruno Lequesne of E-Motors Consulting, LLC, said, “Wave and tidal energy is a big deal in the upper West Coast. The local universities have great programs in this field.” With regard to data centers, Dr. Lequesne noted that “they are a big industry now, using over 2% of the electricity produced in the U.S. So Microsoft and others are researching in a big way how to reduce this energy bill.” He also reports that IEEE IAS has recently formed a subcommittee related to data center topics, and a meeting for those interested will be held at 6:00 p.m. on Monday in conjunction with the conference. Many readers will recognize the name Hyperloop,

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<th>Topic</th>
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<td>Power Semiconductors—Enabling a Powerful Decade of Changes</td>
<td>Dr. Stephanie Butler</td>
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<td>Ocean Energy—Wave and Tidal Energy Opportunities</td>
<td>Jason Bush</td>
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but Dr. Lequesne recommends that readers Google that term and promises that “it sounds like a lot of futuristic fun.”

Figure 1 supports the idea that this year’s ECCE is bigger than any previous year’s, while providing perspective on the advance of the series of conferences.

The chart clearly shows that the number of digest submissions received for 2018 is the largest ever, while the trend line shows that submissions have grown from roughly 1,100 in the early years to nearly 1,700 in recent years. Dr. Omekanda further reports that the number of abstracts accepted for presentation in 2018 is also a record; given that fewer papers are actually presented than accepted, it is premature to conclude that the number of papers presented will be a record. But 1,190 overall papers have been accepted, so the prospects are good. And the trend line is very encouraging.

Dr. Giovanna Oriti, a professor at the Naval Postgraduate School in Monterey, California, and one of several technical program cochairs for the conference, made a convincing case for the conference being better than before. Despite the record number of submissions, the review process was substantially more rigorous than in at least some previous conferences. Overall, 1,755 abstracts were subjected to 8,201 reviews. The difference between the number submitted (1,788 from Figure 1) and the number reviewed represents abstracts that, while submitted, were withdrawn prior to review. The average number of reviews per abstract was therefore approximately 4.7. Every paper abstract received between three and five reviews. Only papers in which the first three reviews were unanimous, either for or against acceptance, were eligible to be judged on three reviews alone. The rejection of papers that received a positive review was an occasion for a review by a vice chair and/or a topic chair. Written comments were provided for all rejections. Even with this rigor (or perhaps because of it), the acceptance rate was 68%, up from 64% the previous year.
This process involved the efforts of approximately 1,000 volunteer reviewers, supervised by 23 vice chairs and 168 topic chairs. The review process was completed close to 20 days ahead of schedule, and a preliminary program was uploaded to the conference website nearly four months before of the conference.

It is interesting to note that the three largest subject tracks in terms of submissions (controls, modeling, and optimization of converters and power converter topologies and electrical machines) represented 48% of all submissions. The inclusion of controls, modeling, optimization, and topologies on this list is understandable; they represent a continuation of the predecessor Power Electronics Specialist Conference. The large interest in electrical machines is, at first glance, a little puzzling. The mystery is heightened when one learns that electrical machines was the fastest growing subject track, up 60% from the previous year.

Prof. Akira Chiba, of the Tokyo Institute of Technology and also a technical program vice chair, provided the answer. There is a long history of higher submissions of electric machines abstracts in even-numbered years. In odd-numbered years, the IEEE International Electric Machines and Drives Conference is held, and many papers that would otherwise be submitted to ECCE are apparently offered there instead.

Even the Sunday tutorials are claimed to be bigger and better. “We listened to the local industries by approaching local IEEE IAS and PELS Chapters in the Portland, Oregon, and Seattle, Washington areas,” Dr. Omekanda explains. “They gave us a list of topics of their interests. Following their suggestions and regular ECCE areas of interest, a record number of 20 tutorials out of 40 submissions were selected for the conference. For the first time in ECCE history, the tutorial materials will be available for purchase by conference attendees who will not be able to attend live tutorial sessions on Sunday, September 23, 2018.”

Technically, there are 22 tutorial offerings, not 20. The conference website shows that there are ten options in the morning session and ten options in the afternoon; however, in both the morning and the afternoon, one of the options is to select one or both of two half-length tutorials, which are offered in sequence. The tutorial topics are also available on the website.

All of this development is the result of an excellent volunteer organizing committee. It is heartening to see such growth and improvement in this already successful conference.

by Tom Keim

The IEEE International Telecommunication Energy Conference (INTELEC) will convene for the 40th consecutive year, this time in Torino, Italy, from 7 to 11 October 2018. It is the largest conference wholly sponsored by the IEEE Power Electronics Society. Torino is the Italian name for the city, which in English is called Turin. The conference website in English uses Torino throughout, so this is clearly a conscious choice. Although the conference series started with a focus on electrical power and energy technology for large telephone