



IEEE Industry Applications Society Industrial Power Converters Committee (IPCC)

2017 Annual Meeting Minutes

Duke Energy Convention Center, Cincinnati (OH), USA October 2nd, 2017

Introduction of members

Pericle Zanchetta, in the role of IPCC Chair, called the meeting to order at 7:00 PM. Members were requested to introduce themselves, to update their records or write their contact details in order to be included in the members' database. A total of 68 people were in the audience of which 20 were new members. The members in attendance are include at the end of the minutes. The new members for 2017 are denoted using an asterisk. Including new members, the total strength of IPCC stands at 368.

Approval of the Agenda

The agenda was moved by Dr. Bill Peterson for approval and seconded by Dr. Ira Pitel; the agenda of the meeting got approved.

Approval of 2016 Meeting Minutes

Minutes of the 2016 meeting were distributed electronically prior to the current meeting. Minutes from the ECCE 2016 meeting was moved by Prof. Leon Tolbert for approval and seconded by Prof. Hirofumi Akagi. The 2016 meeting minutes got approved.

Reports from Subcommittees

Fellow and awards nominations

Fellow and awards nominations of IPCC members were presented by Dr. Bill Peterson.

Yoshihisa Shimuzu was elevated to the IEEE Fellow grade.

Braham Ferreira was recipient of the 2017 Industry Applications Society Outstanding Achievement Award.

Richard Lukaszewski was recipient of the 2017 Gerald Kliman Award.





Bill Peterson reminded to the audience that Nominations for the 2018 IEEE Richard Harold Kaufmann Award are due on January 31st 2018 and for the 2018 Gerald Kliman Innovator Award on June 1, 2018; as well Nominations of IAS outstanding achievement and IAS distinguish service award are due on March 15th, 2018.

Special Activities

Prof. Giovanna Oriti is the Special Activities Chair, but she was unable to attend the meeting. She had sent her short report and Prof. Pericle Zanchetta presented the report.

IPCC members Po-Tai Cheng and Dazhong Gu are representing IAS, volunteering as judges, in the Future Energy Challenge.

IAS Transactions

Associate Editors acknowledgment

Prof. Leon Tolbert, IPCC Transactions Chair, recognized for their efforts the 208 Associate Editors working with regularly submitted Transactions papers for the IPCC. The current AEs are:

Mahshid Amirabadi, Vivek Agarwal, Stefano Bifaretti, Huang-Jen Chiu, Daniel Costinett, Dong Jiang, Surin Khomfoi, Xiaonan Lu, Ke Ma, Santanu Mishra, Marcello Pucci, Akshay Kumar Rathore, Xue She, Luca Solero, Gui-Jia Su, Yongsug Suh, Xiongfei Wang, Zhiqiang Wang, Pericle Zanchetta, Junming Zhang.

IAS Transactions review statistics

Prof. Leon Tolbert presented Transactions paper review statistics. The time to first decision of IPCC over the past 12 months was 65 days. The historical average for the committee is below the society target of 90 days. Last year acceptance rate was 49% for IPCC. Initial submissions in the last 12 months were 199 (increase of 50% from 2016 – 131 submissions). 84 papers either published or planned in the 6 TIA 2017 issues. The list of conferences from which the transactions papers were received was presented. Some of them have 20% submission rule for papers eligible for Transactions review.

The guidelines on how to submit a manuscript to IPCC were presented.

- Paper must be first presented at an IAS-sponsored conference (within the last 12 months).
- Send an email to tolbert@utk.edu with the request to submit a paper and the following information:
 - o Paper title
 - List of authors and corresponding author's email and institution
 - \circ $\,$ Conference and date when the paper was presented





- An email will be sent to the corresponding author from ScholarOne Manuscripts with instructions on uploading the paper for review (usually within 1 - 2 weeks).
- The conference paper version must be referenced (cited) in the Transactions submission reference list.
- Authors are encouraged to update and add new material to the conference version of the paper.

IPCC prize paper awards

Prof. Leon Tolbert presented the paper awards.

The top 6 papers presented at ECCE 2016 and accepted to IAS Transactions were taken into consideration for the IPCC prize paper ballot. The list was done based on the reviewers' score during the transaction review process. Only the papers submitted for IAS Trans. before November 15, 2016 were included in the ballot.

The Evaluation Committee for the IPCC prize paper awards selected the top three prized papers. The Evaluation Committee members are

- Leon Tolbert, The University of Tennessee, USA
- o Mahshid Amirabadi, Northeastern University, USA
- Stefano Bifaretti, University of Rome Tor Vergata, Italy
- Huang-Jen Chiu, NTUST, Taiwan
- Daniel Costinett, The University of Tennessee, USA
- Surin Khomfoi, KMITL, Thailand
- Xiaonan Lu, Argonne National Laboratory, USA
- Santanu Mishra, IIT-Kanpur, India
- Akshay Kumar Rathore, Concordia University, Canada
- Luca Solero, University Roma Tre, Italy
- o Yongsug Suh, Chonbuk National University, Korea
- Zhiqiang Wang, Oak Ridge National Laboratory, USA
- o Junming Zhang, Zhejiang University, China

The winners were recognized at the IPCC annual meeting. The prized papers are the following:

First IPCC Prize Paper Award

"Which is more suitable to a Modular Multilevel SDBC Inverter for Utility-Scale PV Applications, Phase-Shifted PWM or Level-Shifted PWM?"

Authors: Paul Sochor and Hirofumi Akagi





Second IPCC Prize Paper Award

"Passivity Enhancement in RES Based Power Plant with Paralleled Grid-Connected Inverters"

Authors: Haofeng Bai, Xiongfei Wang, and Frede Blaabjerg

Third IPCC Prize Paper Award

"Fixed Frequency Finite-State Model Predictive Control for Indirect Matrix Converters with Optimal Switching Pattern"

Authors: Luca Tarisciotti, Jiaxing Lei, Andrea Formentini, Andrew Trentin, Pericle Zanchetta, Patrick Wheeler, and Marco Rivera

Prof. Leon Tolbert presented the selection procedure for the IPCC prize papers awards 2017.

- ECCE 2017 papers must be submitted before November 15, 2017 in order to be included in the award evaluation.
- The 6-10 papers with the highest score from the first IAS Transaction review will go in final ballot.
- The Transactions Co-Chair will select an award committee and each member will score each paper.
- > The score from the committee members will be averaged to obtain the final list.

Call for IPCC special issues on the IA Transactions

December 15th, 2017 is the extended deadline for paper submissions to the Special Issue – Grid-Connected Power Electronics Systems: Stability, Power Quality and Protection, Guest Editors Xiongfei Wang (Aalborg University, Denmark) and Pericle Zanchetta (Nottingham University, UK).

November 15th, 2017 is the deadline for proposals of new Topics for IPCC special issues on Transactions. Send an email to <u>tolbert@utk.edu</u> with the details of the proposal.

Report on the IPCSD Editorial Meeting

Prof. Pericle Zanchetta presented the report. Some changes are suggested in order to impact the publications' effectiveness in IEEE IAS Transactions and Magazine.

- ✓ Conference papers recommended for publication MUST BE REVISED before publication in IEEE Transactions on Industry Applications or IEEE Industry Applications Magazine.
- ✓ There is no hard metric on how much revision is required. Instead, authors must be comfortable that they are compliant with the long-standing rule that they are not seeking multiple publication of a paper.





- ✓ Reviewers and the Associate Editor are also expected to be comfortable that the paper offers information not included in the earlier conference version.
- ✓ The revised version MUST include a reference citation pointing to the earlier conference version.
- ✓ The authors may consider changing the title, adding references, adding or simplifying illustrations, and adding or simplifying text in the body of the paper.
- ✓ The authors are asked to provide a BRIEF description (± 200 words) of the revisions in the cover letter field in Scholar 1.
- ✓ The policy change has been adopted and we are obligated to proceed with implementation in IAS.
- ✓ Conference papers that are approved for publication without revision will be returned to the responsible technical committees for revision.
- Exceptions to the 'presentation first' policy are only made for so-called 'special issues' of IAS Transactions as authorized by the IAS Executive Board.

The specific recommendation to pay a special attention to the reference section of the accepted manuscripts was also made to Reviewers and Associate Editors. An up-to-date reference list should contain few references from the last 2 years. At least one of these RECENT references should be from IEEE Transactions on Industry Applications, and at least 20% of all the references of the manuscript are expected to be from IEEE Transactions on Industry Applications.

ECCE 2017 Statistics

Prof. Pericle Zanchetta reported on the statistics of ECCE 2017. The submitted digests amounted to 1503, whereas 1450 were the digests valid for review. E and F are the tracks of major interest for the IPCC, they had respectively 242 and 258 submitted digests, the highest numbers of all the tracks of the Technical Program. The acceptance rate was 65% for track E and 66% for track F, very close to the average rate of 64% of the Conference. The scheduled oral sessions were 24 and 26 out of a total of 141, respectively for track E and track F.

IAS - PELS Sponsored 2017 Conferences

Dr. Giacomo Scelba presented details of SLED 2017, it was held in Catania (Italy), on September 18-19, 2017. The edition was a tribute to the memory of Alfio Consoli. SLED 2018 will be held in Helsinki (Finland).

IAS - PELS Sponsored 2018 Conferences

The Committee was informed about upcoming events:





APEC 2018, San Antonio – TX (USA), March 4-8, 2018 PEMD 2017, Liverpool (UK), April 17-19, 2018 IPEC 2018, Niigata (Japan), May 20-24, 2018 WoW 2018, Montreal (Canada), June 3-7, 2018 SPEEDAM 2018, Amalfi (Italy), June 20-22, 2018 PEMC 2018, Budapest (Hungary), August 26-30, 2018 INDEL 2018, Banja Luka (Bosnia and Herzegovina), November 1-3, 2018

IPCC Officers and Subcommittee Chairs

Active Officers

The slate of officers of the Committee for 2017 is

- > Prof. Pericle Zanchetta as Chairman
- > Dr. Grant Pitel as Vice-Chairman
- Prof. Luca Solero as Secretary
- > Dr. Bill Peterson as Past-Chair

Appointment of the new Secretary

The Committee Officers have presented the candidature of Dr. Xiaonan Lu to the Secretary position in 2018.

Dr. Xiaonan Lu received the B.E. and Ph.D. degrees in electrical engineering from Tsinghua University, Beijing, China, in 2008 and 2013, respectively. From Sep. 2010 to Aug. 2011, he was a guest Ph.D. student at Department of Energy Technology, Aalborg University, Denmark. From Oct. 2013 to Dec. 2014, he was a postdoc researcher in the Department of Electrical Engineering and Computer Science, University of Tennessee, Knoxville. Since 2015, he is with the Argonne National Laboratory - Energy Systems Division, Argonne IL (USA).

Dr. Xiaonan Lu was appointed as the new Secretary of the Committee. The Committee approved.

As a result, the slate of officers of the Committee for 2018 is

- > Dr. Grant Pitel as Chairman
- > Prof. Luca Solero as Vice-Chairman
- > Dr. Xiaonan Lu as Secretary
- > Prof. Pericle Zanchetta as Past-Chair

The slate was approved by the Committee.





Special Activity Chair

Prof. Giovanna Oriti has announced resignation from Special Activity Chair. The Committee Chair thanked Giovanna Oriti for the effective work she has done. Prof. Yongsug Suh of the Chonbuk National University, Jeonju (Korea) was nominated as new Chair to replace Giovanna Oriti. The Committee approved the appointment.

Liaison Officers

Prof. Junichi Itoh, Nagaoka University of Technology, Nagaoka (Japan) was appointed as the new Asian Liaison Officer to replace Yongsug Suh, who became Special Activity Chair. The Committee approved.

The Liaison Officers for 2018 are

- Prof. Junichi Itoh (Japan) Asian Liaison
- > Vacant Asian Liaison
- > Dr. Petar Grbovic (Germany) European Liaison
- Vacant European Liaison

There are still two vacant positions, one as Asian Liaison Officer and one as European Liaison Officer, nominations for the vacant positions can be submitted to the Committee Chair by November 15th, 2017 – pericle.zanchetta@nottingham.ac.uk

Editorial Officers

The officers for 2017 are

- > Prof. Leon Tolbert as Transactions Review Chair
- > Prof. Paolo Mattavelli as Transactions Review Co-Chair

After four years, Prof. Leon Tolbert leaves the office as Transaction Review Chair; as well Prof. Paolo Mattavelli leaves the office as Transactions Review Co-Chair. The Committee Chair thanked both Leon Tolbert and Paolo Mattavelli for the effective work they have done.

Prof. Pericle Zanchetta, The University of Nottingham, Nottingham (UK), was appointed as the new Transaction Review Chair. The Committee approved.

Prof. Stefano Bifaretti, University of Roma Tor Vergata, Roma (Italy), was appointed as the new Transaction Review Co-Chair. The Committee approved.

The officers for 2018 are

- > Prof. Pericle Zanchetta as Transactions Review Chair
- > Prof. Stefano Bifaretti as Transactions Review Co-Chair





Fellow and Awards Subcommittee Chair

Dr. Bill Peterson has announced resignation from Fellow and Awards Subcommittee Chair. The Committee Chair thanked Bill Peterson for the effective work he has done. Prof. Po-tai Cheng of the National Tsing-Hua University, Hsinhcu (Taiwan) was nominated as new Chair to replace Bill Peterson. The Committee approved the appointment.

Planning of ECCE 2018

Dr. Avoki Omekanda, ECCE 2018 General Chair, presented information about ECCE 2018, to be held in Portland (OR) on September 23-27, 2018. Deadline for submission of digests is January 15, 2018.

November 15th, 2017 is the deadline for Tutorial proposals for ECCE 2018. Send an email to the Committee Chair at pericle.zanchetta@nottingham.ac.uk with details of the proposals. Two Tutorial proposals have been already presented:

- Graphical programming for DSP-FPGA based control in Power Electronics Systems (Prof. Alessandro Lidozzi, University of Roma Tre, Italy)
- Power converters for Energy Storage applications: Analysis and Design from Theory to Practice (Dr. Petar Grbovic, Huawei Technologies, Germany)

Prof. Pericle Zanchetta requested volunteers to serve as Topic Chairs and Session Chairs for ECCE 2018. The following members volunteered to serve:

Mahshid Amirabadi, Markus Andresen, Manuel Arias, Stefano Bifaretti, Dong Cao, Ignacio Castro, Maurizio Cirrincione, Thomas Cox, Pablo Garcia Fernandez, Jorge Garcia, Diego Gonzalez Lamar, Dazhong Gu, Junichi Itoh, Dong Jiang, Chia-Tse Lee, Alessandro Lidozzi, Xiaonan Lu, Antonio Marques Cardoso, Santanu Mishra, Vito Giuseppe Monopoli, Angel Navarro, Milijana Odavic, Shafiq Odhano, Koji Orikawa, Majid Pahlevani, Di Pan, Roberto Petrella, Ha Pham, Marcello Pucci, Giacomo Scelba, Mohammad Shadmand, Adam Skorek, Andres Suarez, Yongsug Suh, Luca Tarisciotti, Aitor Vazquez, Keiji Wada, Xiongfei Wang, Lixiang Wei, Xibo Yuan, Jianwu Zeng, Zheyu Zhang, Yue Zhao.

<u>Adjourn</u>

The meeting was adjourned.

October 18th, 2017 Pericle Zanchetta Chair Grant Pitel Vice-Chair Luca Solero Secretary Bill Peterson Past-chair



Members in Attendance



Akagi, Hirofumi Mirafzal, Behrooz * Andresen, Markus * Mishra, Santanu Arias, Manuel * Monopoli, Vito G. Blaabjerg, Frede Navarro, Angel * Odavic, Milijana * Bojoi, Iustin Radu Briz Del Blanco, Fernando Odhano, Shafiq * Cao, Dong Orikawa, Koji * Pahlevani, Majid * Carruthers, Peter * Castro, Ignacio * Parsa, Leila * Cheng, Po-Tai Peterson, Bill Cirrincione, Maurizio Petrella, Roberto Cox, Thomas Pham, Ha * da Silva, Edison R.C. Pitel, Grant di Benedetto, Marco * Pitel, Ira J. Formentini, Andrea Prasad, Rashmi Pucci, Marcello Fujita, Hideaki Garcia, Jorge Scelba, Giacomo Garcia Fernandez, Pablo Seok, Jul-Ki Gonzalez Lamar, Diego Shadmand, Mohammad * Skorek, Adam Gu, Dazhong Guenther, Robert N. Solero, Luca Guo, Ben Suarez, Andres * Harke, Michael Suh, Yongsug Itoh, Junichi Swamy, Mahesh Jain, Praveen Tarisciotti, Luca * Jiang, Dong * Tolbert, Leon M. Krein, Philip Vazquez, Aitor * Lee, Chia-Tse Wada, Keiji Lu, Xiaonan Wang, Xiongfei Marques Cardoso, Antonio Wei, Lixiang Yuan, Xibo Matsuse, Kouki Mattavelli, Paolo Zanchetta, Pericle

Zarri, Luca Zeng, Jianwu * Zhang, Zheyu * Zhao, Yue *