

## **IEEE IAS Industrial Drives Committee Minutes of the 2017 Annual Committee Meeting**

Cincinnati Duke Energy Convention Center, Room 262  
Cincinnati, Ohio, USA  
Tuesday, October 3, 2017, 6:00 pm – 7:00 pm

Meeting called to order at 6:05 PM by Michael Harke.

The following committee officers were present:

Michael Harke, Chair of the IAS Industrial Drives Committee (IDC)  
Fernando Briz, IDC Vice-chair Papers  
Mahesh Swami, IDC Vice-chair Programs  
Luca Zarri, IDC Secretary  
Yen-Shin Lai, Past Chair IDC

### **1. Introduction of members and recognition of IEEE fellows**

- a. Firstly, the present slate of IDC officers was introduced. IEEE fellows were recognized.
- b. The IDC roster was circulated and the members were encouraged to sign.

The attendance was about 100 people. Twenty-seven (27) people signed up as new members. The total number of IDC members, including the new ones, is currently 433.

### **2. Old business/reports**

#### a. Approval of the 2016 meeting minutes.

The approval of the meeting minutes was moved by Prof. Pinjia Zhang, seconded by Uday Deshpande, and unanimously approved.

#### b. Review Report by the Vice Chair for Papers

Prof. Fernando Briz presented the vice-chair papers report summarizing the statistics of the papers submitted to the IDC for publication in IEEE Transactions on Industry Applications.

About 120 papers had been submitted for review during the previous 12 months. In comparison to the other IAS committees, IDC was third in terms of number of submissions, behind EMC and IPCC, but the submission trend was increasing. The amount of submissions was about twice that of the previous year.

The acceptance rate was slightly above 50%, and was aligned with the other IAS technical committees.

The time to decision was 60 days, one of the lowest among all the IAS committees.

According to the year-to-date submission statistics, the submitting countries were USA and India (16 papers each), China and Italy (13 papers), UK and Canada (7 papers each), followed by Germany (5), Japan (4), and many others (in total, 24 countries from all over the world).

IEEE Trans. on Industry Applications requires the submitted papers to be presented first at a IAS-sponsored conference. In 2017, about 40-45% of the papers came from ECCE, 20% from ICEM and the remaining papers from a variety of conferences (APEC, SPEEDAM, PEDES, PEMC, ...).

The papers presented at ECCE were more likely to be accepted (75% of positive outcomes) than the papers presented at ICEM (30%-40% of positive outcomes).

Furthermore, Fernando Briz explained that IAS had decided to transpose some changes in the Transactions and Magazine publication policy:

- Conference papers had to be revised before the submission to IEEE Trans. on Industry Applications or IEEE Industry Applications Magazine,
- There was no specific amount of change, but it was not possible to publish the conference paper as it was. Associate Editors and reviewers had to prevent this from happening.
- The revised paper had to include a reference to the conference paper.
- The authors had to describe the changes in letter to the Editor.

The Impact Factor (IF) of IEEE Trans. on Industry Applications grew from 1.901 in 2015 to 2.937 in 2016, which was the last available data. The increase in the IF was due to a change in the methodology used for its calculation, which included also the references coming from conference papers. The actual IF of IEEE Trans. of Industrial Electronics was 7.168, while that of IEEE Trans. of Power Electronics was 7.151.

Due to the importance of IF in assessments of journals and papers, the Associate Editors, the reviewers and the authors had to pay attention to the reference section of the papers, which should contain some references to recent papers (2 years-old or younger) published in Trans. on Ind. Applications. Overall, about 20% of the references were expected to be from Trans. on Ind. Applications.

### c. Review Report by the Vice-Chair for Programs

Mahesh Swamy presented the vice-chair programs report on the results of Track-H at ECCE 2017. The appointed vice-chairs for Track H were Mahesh Swamy (IAS representative), and Prof. A. J. Marques Cardoso (PELS representative).

A total of 150 papers had been received (compared to 162 submissions of the previous year), 12 papers had been withdrawn and 71 had been accepted, thus leading to an acceptance rate of 47%.

The papers were selected purely on the merit of the digests and the Technical Program Committee of the conference had put no pressure to meet a target.

The Topic Chairs that had managed the review process were Gu Dazhong, Rukmi Dutta, Stefan Schroeder, Radu Bojoi, Giacomo Scelba, Mazharul Chowdhury, John Neely, Shih-Chin Yang, Jiangbiao He, Jingbo Liu, Ali M. Bazzi, Roberto Petrella, Hinkkanen Marko, Rangarajan Tallam, Juan Guerra, Long Wu, Marcello Pucci, Abraham Gebregergis, Subhra Paul, Ramakrishnan Raja, Davide Barater, David Diaz, Alireza Fatemi, Pinjia Zhang, Yue Zhao, Gui-Jia Su, Dong Jiang, Sayeed Mir and Prerit Pramod.

Most of them were session chairs as well.

The most trending sub-tracks were PM Motor Drives (27 papers), Control of Electric Drives (25 papers each), Sensorless drives and Induction Motor Drives (17 papers each).

The distribution of the papers based on the country of the first author placed USA first (38%) among the submitting countries, followed by Italy (17%), China (11%) and other 11 countries.

The papers with a student as the first author were 50 out of 150. The number of papers purely from Industry was 8, and the papers written in collaboration between industrial and academia were 13.

A total of 66 paper were distributed into 15 oral sessions, the remaining 5 papers were assigned to a poster session.

The committee recognized the effort of Mahesh and Antonio as ECCE vice chairs.

#### d. Report on SLED 2017

The report was presented by Giacomo Scelba, University of Catania, Italy. The 8th IEEE International Symposium on Sensorless Control for Electrical Drives was held in Catania, Italy, on the 18<sup>th</sup> and 19<sup>th</sup> of June 2017. The General Chairs were Giuseppe Scarcella and Mario Cacciato.

During the symposium, 40 papers, distributed in 10 technical session and a poster session, were presented. There were 73 participants from 14 countries. The symposium was dedicated to the memory of Prof. Alfio Consoli.

### **3. Awards and Recognitions**

#### a. Conference awards

Fernando Briz presented the ECCE'16 awards. The papers considered were those presented at ECCE'16, submitted to IEEE Transactions on Industry Applications upon IDC invitation, which had passed the first round of review (with a recommendation of acceptance or revision) by April 30, 2017.

A total of 32 papers qualified. The recommendations of the Associate Editors helped reduce the papers in the list to 9. Finally, the Awards Committee assessed each paper to select the best ones. To avoid conflicts of interest, Prof. Mario Duran managed the last part of the review procedure, since one of the candidate papers was authored by Dr. Stefan Schroeder (the chair of the committee).

The three best papers were

- 1) "Permanent Magnet Temperature Estimation in PM Synchronous Motors Using Low Cost Hall Effect Sensors," by Sang Bin Lee, Daniel Fernandez, Doosoo Hyun, Yonghyun Park, David Diaz, Dongmyung Lee, Fernando Briz
- 2) "Grounding Concept and Common-Mode Filter Design Methodology for Transformerless MV Drives to Prevent Bearing Current Issues," by Marius Mechlinski, Stefan Schröder, Jie Shen, Rik W. De Doncker

- 3) “Automatic MTPA Tracking in IPMSM Drives: Loop Dynamics, Design and Auto-Tuning,”  
by Sandro Calligaro, Christian Olsen, Roberto Petrella, Nicola Bedetti

The awards certificates were given to the authors who were present at the meeting.

The members of the Awards Subcommittee were:

Dr. Stefan Schroeder (GE Global Research Europe, Germany), Chair  
Prof. Mario Javier Durán Martínez (University of Malaga, Spain)  
Dr. Rangarajan M. Tallam (Rockwell Automation, USA)  
Dr. Long Wu (John Deere, USA)  
Prof. Sun Kai (Tsinghua University, China)  
Dr. Brij N. Singh (John Deere / North Dakota State University, USA)  
Dr. Wim van der Merwe (ABB, Switzerland)  
Prof. Bingsen Wang (Michigan State University, USA).

The IDC Committee congratulated the members of the Awards Subcommittee for their excellent work.

b. Associate editors

The Associate Editors of IEEE Trans. on Industry Applications for IDC in 2017 were recognized. They were

Mario Pacas, University of Siegen, Germany  
Shen-Ming Yang, National Taipei University of Technology, Taiwan  
Jul-Ki Seok, Yeungnam University, Korea  
Mahesh Swamy, Yaskawa America, USA  
Marcello Pucci, ISSIA-CNR, Italy  
Giacomo Scelba, University of Catania, Italy  
Kevin Lee, EATON Corp., USA  
Yue Zhao, University of Arkansas

#### **4. New Business**

a. IDC Slate of Officers

The Past IDC Chair, Prof. Yen Shin Lai, presented the new slate of the IDC officers for 2017:

Chair: Fernando Briz, University of Oviedo, Spain  
Vice Chair - Papers: Mahesh Swamy, Yaskawa America Inc., USA  
Vice Chair - Programs: Luca Zarrì, University of Bologna, Italy  
Secretary: Jul-Ki Seok, Yeungnam University, Republic of Korea  
Past Chair: Michael Harke, UTC AEROSPACE SYSTEMS, USA

Prof. J. O. Ojo moved the motion first, which was then seconded by Prof. Fabio Giulii Capponi. The motion was unanimously approved.

The incoming secretary was Prof. Jul-Ki Seok, Yeungnam University, Republic of Korea. He received the Ph.D. degree in electrical engineering from Seoul National University, Korea. From 1998 to 2001, he worked for the Samsung Electronics. Since then, he has been with Yeungnam University, Korea.

He served as Chair of IEEE IAS IDC Award Subcommittee, Guest Associate Editor of IEEE JESTPE, in the Editorial Board of IET Electric Power Applications, and as Associate Editor of IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS. He was the recipient of 2014 IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS Second Place Prize Paper Award.

b. Prize Papers Awards

Fernando Briz informed the audience that only the papers submitted to IEEE Trans. on Industry Applications by the end of November 2017 would have been considered for the prize paper awards.

c. New Associate Editor

Fernando Briz announced that he was looking for a new associate editor for IEEE Trans. on Industry Applications with experience in the field of high power drive Applications. He requested the interested members to forward their CV by email.

d. ECCE 2018

The details of ECCE 2018 were presented by Dr. Avoki M. Omekanda, General Motors, USA. Avoki informed the audience that ECCE 2018 would take place in Portland, Oregon, from the 23<sup>rd</sup> to the 27<sup>th</sup> of September 2018, and that he would be the general chair.

The members were encouraged to get involved and to volunteer as topic chairs and reviewers. Business cards were collected by Luca Zarri.

Where: Portland, Oregon

When: September 23-27, 2017

General Chair: Dr. Avoki M. Omekanda

Website: <http://www.ieee-ecce.org/2018/>

e. SLED 2018

Michael Harke explained that IAS will organize the SLED Symposium in 2018, since there is an agreement between the IAS and PELS that they will alternate organizing SLED each year. SLED provides a specific forum for international experts to present and discuss the latest developments in the field of sensorless electrical drives.

The upcoming edition of SLED was presented by Prof. Marko Hinkkanen, Aalto University, Finland.

Where: Helsinki, Finland

When: September 13-14, 2018

General Chair: Prof. Marko Hinkkanen

Website: <http://sites.ieee.org/sled2018/>

f. ICEM 2018

Luca Zarri presented ICEM 2018, a conference devoted to the electric machines. The topic list includes electric drives, condition monitoring and embedded applications. The upcoming edition of ICEM will be in Alexandroupoli, Greece from September 3 to September 6, 2018.

Where: Alexandroupoli, Greece

When: September 3-6, 2018

General Chairs: Elias Strangas and Gérard-André Capolino

Website: <http://www.icem.cc/2018/>

## **5. Adjournment**

A call to adjourn the meeting was moved by Prof. Fabio Giulii Capponi, seconded by Prof. Pragasen Pillay and unanimously approved.

Submitted by Luca Zarri

November 17, 2017