



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



IPCSD Department Meeting

Pericle Zanchetta

IPCSD Chair

Wednesday, November 4, 2020

Agenda

- Welcome and Meeting Opening – 1 min. (Pericle Zanchetta, IPCSD Chair)
- Report on the IPCSD Awards Committee – 10 min. (Leon Tolbert, IPCSD Awards Chair)
- Report on IAS editorial meeting - 5 min. (Andy Knight, IAS Publications Chair)
- Report on IPCSD standards committee - 5 min. (Emmanuel Agamloh, IPCSD Standards committee Chair)
- IPCSD involvement in APEC update – 5 min (Fernando Briz, IPCSD Vice-Chair) Key updates of technical committees (standards, websites, papers & conferences, other) - 30 min
 - * EMC (Akira Chiba, EMC Chair)
 - * IDC (Mahesh Swamy, EMC Chair)
 - * IPCC (Luca Solero, IPCC Chair)
 - * RSECS (Adel Nasiri, RSECS Chair)
 - * TSC (Bulent Sarlioglu, TSC Chair)
 - * PEDCC (Tanya Gachovska , PEDCC Chair)
- IAS Meetings Dept. -10 min (Tamas Ruzsanyi, IAS Meetings Dept. Chair)
- ECCE 2020 Update -10 min (Ryan Li, ECCE 2020 Chair)
- ECCE 2021 Update -10 min (Giovanna Oriti, ECCE 2021 Chair)
- State of the IAS – 10 min. (Georges Zissis, IAS President)
- Closing remarks & Motion to adjourn – 1 min. (Pericle Zanchetta, IPCSD Chair).



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Industrial Power Conversion Systems Department



Agenda

- Report on the IPCSD Awards Committee – 10 min. (Leon Tolbert, IPCSD Awards Chair)



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Industrial Power Conversion Systems Department



IPCSD Award Committee Report

Leon M. Tolbert

IPCSD Awards Chair

November 4, 2020

IAS awards

- IAS IPCSD Gerald Kliman Innovator Award (Deadline: June 1)
- Awards require a nominator (cannot self-nominate)
- Nominations through web-based-form: <https://ias.ieee.org/awards.html>
- IEEE Andrew W. Smith Outstanding Young Member Achievement Award (Deadline: March 15)
- IAS Outstanding Young Member Service Award (Deadline: March 15)
- IAS Distinguished Service Award (Deadline: March 15)
- IAS Outstanding Achievement Award (Deadline: March 15)
- IAS Outstanding Educator/Mentor (Deadline: March 15)
- IEEE Richard Harold Kaufmann Award (Deadline: Jan 15)
- IEEE Fellow (Deadline: March 1)
- IAS Distinguished Lecturers (Deadline: March 31)



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Industrial Power Conversion Systems Department



IAS IPCSD Gerald Kliman Innovator Award (Deadline: June 1)

The IEEE IAS Industrial Power Conversion Systems Department (IPCSD) Gerald Kliman Innovator Award was established to honor innovators who contributed to the technical areas of IPCSD Department.

For meritorious contributions to the advancement of power conversion technologies through innovations and their application to Industry.

Needs 3 endorsement letters.

Criteria considered by the Evaluation Committee shall include: impact of the nominee's work on the technology; discernable and salient innovative aspect of the nominee's work; the breadth of use of the work; the depth of the work's impact on the industry; the technical leadership value of the work.

Gerald Kliman Innovator Award - 2020

- 8 nominations received
- Award Committee – Past Kliman Awardees
- 6 on committee provided rankings of the nominees
- **Vlado Blasko** (Raytheon, previously United Technologies) cited: *“For contributions to the theoretical and practical advancement of regenerative converters and electrical drives”*
- Vlado Blasko was named as 1st or 2nd on all ballots



IAS Gerald Kliman Award – past recipients

2020 – Vlado Blasko

2019 – Alex Huang

2018 – Fred Wang

2017 – Richard Lukaszewski

2016 – Jason Lai

2015 – Manoj Shah

2014 – Jan Abraham Ferreira

2013 – Fang Zheng Peng

2012 – Thomas Habetler

2011 – Leo Lorenz

2010 – William Peterson

2009 – John Miller

2008 – Ira J. Pitel

2007 – Bruno Lequesne

2006 – Kaushik Rajashekara

2005 – Russel J. Kerkman



IEEE IAS Andrew W. Smith Outstanding Young Member Achievement Award (Deadline: March 15)

- Established in 1996, renamed in 2009 and 2015.
- Recognizes outstanding achievement and contribution to the profession through involvement in IEEE IAS activities by an IAS member less than 35 years of age.
- Prize: \$2,500, Plaque and travel expenses to attend an IAS sponsored conference for presentation and recognition.
- Eligibility: **Nominees must be age 35 or less at the specified award nomination due date.** To be considered as a nominee, a one page form must be completed describing IAS activities and associated contributions made by the nominee. The form must be submitted and received by the IAS President before the specified due date of March 15. Self nomination is not permitted for this award.
- Basis for Judging: Outstanding contribution to the profession in the form of IEEE/IAS activities such as (but not limited to) authorship of technical papers, IAS chapter leadership, IAS committee work, conference leadership, and standards working groups.
- **2020: Yue Zhao, University of Arkansas**



IEEE IAS Andrew W. Smith Outstanding Young Member Award – past recipients

2019	Jiangbao He	2007	Leila Parsa
2018	Pinjia Zhang	2006	Burak Ozpineci
2017	Xu She	2005	Ganesh K. Venayagamoorthy
2016	David C. Mazur	2004	Dan Neeser
2015	Tiefu Zhao	2003	Michael J. Hittel
2014	Bin Lu	2002	Giovanna Oriti
2013	Akshay Kumar Rathore	2001	Leon Tolbert
2012	Zhi Gao	2000	Annette von Jouanne
2010	Wei Qiao	1999	Kimberly K. Eastwood
2009	Ayman M. EL-Rafaie	1998	Iqbal Husain
2008	Nadeza A. Dvurechenskaya	1997	Mark Halpin
		1996	Christine M. Kent

IAS Outstanding Young Member Service Award (Deadline: March 15)

- Recognizes outstanding service and contribution to the profession through involvement in IEEE IAS activities by an IAS member less than 35 years of age.
- Prize: \$2,500, Plaque and travel expenses to attend an IAS sponsored conference for presentation and recognition. Funded by the IEEE Industry Applications Society.
- Eligibility: Nominees must be less than age 35 at the specified award nomination due date. To be considered as a nominee, a one page form must be completed describing IAS activities and associated contributions made by the nominee. The form must be submitted and received by the IAS President before the specified due date of March 15. Self nomination is not permitted for this award.

Basis for Judging: Outstanding contribution to the profession in the form of IEEE/IAS activities such as (but not limited to) authorship of technical papers, IAS chapter leadership, IAS committee work, conference leadership, and standards working groups.

- **2020: Zhaohao Ding, North China Electric Power University**



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IAS Outstanding Young Member Service Award – past recipients

2019	Srikanth Vasudevan Pillai
2018	Richard Cselko
2017	Megha Tak
2016	Christina P. Malliou



IAS Outstanding Achievement Award (Deadline: March 15)

- Honors an individual who has made an outstanding contribution in the application of electricity to industry in accordance with the scope of the IEEE Industry Applications Society.
- Prize: \$5,000 and engraved statuette, Funded by the IEEE Industry Applications Society.
- Basis for Judging: Any of the following criteria apply: invention in the field as exemplified by issued patents; contribution to the general engineering or scientific basis of the technologies found within the scope of the IAS; executive or managerial contribution in the organization or operation of enterprises as associated with the scope of the IAS. Self nomination is not permitted for this award.
- **2020: Fang Zheng Peng, Florida State University**

IAS Outstanding Achievement Award – Past Recipients

2019	Zi-Qiang Zhu	2001	L. Bruce McClun
2018	Dianguo Xu	2000	Kouki Matsuse
2017	Braham Ferreira	1999	Akira Nabae
2016	Seung-Ki Sul	1998	Don Novotny
2015	Pragasen Pillay	1997	Joachim Holtz
2014	Thomas A. Nondahl, Longya Xu	1996	Austin H. Bonnett
2013	Muhammad H. Rashid	1995	James Erickson
2011	Thomas Jahns	1994	Ray Stratford
2010	Tomy Sebastian	1993	B.K. Bose
2009	Kaushik Rajashekara	1992	Azizur Rahman
2008	Paresh C. Sen	1991	Thomas E. Sparling
2007	Caio Ferreira	1990	George W. Walsh
2006	J. D. van Wyk	1989	Donald Ross
2005	Nobuyuki Matsui	1988	Curtis Herskind
2004	Hirofumi Akagi	1986	Thomas A. Lipo
2003	Bob Lorenz	1984	Russell W. Mills
2002	Rik DeDoncker		



IAS Distinguished Service Award (Submission Deadline is March 15)

- Recognizes an individual for dedication and service to the IEEE Industry Applications Society.
- Prize: \$5,000 and Plaque, Funded by the IEEE Industry Applications Society.
- Basis for Judging: Exceptional administrative, managerial and leadership achievement; proposal and/or implementation of innovative new Society programs; dedication to the growth and advancement of the Society and/or its geographic and technical entities. Self nomination is not permitted for this award.
- **2020: Bruno Lequesne**

IAS Distinguished Service Award – Past Recipients

2019	Mark Nelms	2006	Peter Magyar
2018	John Nelson	2005	Satish Chaparala
2017	Jerry Hudgins	2004	Dayne Aldridge
2016	Barry Brusso	2003	Andrew W. Smith
2015	Carlton Speck	2002	Frederick C. Trutt
2014	Louie J. Powell	2001	Michael J. Foley
2013	H. Landis (Lanny) Floyd	2000	Donald S. Brereton
2012	William D. Greason	1999	Baldwin Bridger, Jr.
2011	Robert Lorenz	1998	F. A. Furfari
2010	Mark Harris	1997	Edward A. E. Rich
2008	Clayton H. Reid		

IAS Outstanding Educator/Mentor (Deadline: March 15)

New Award

- The purpose of the Society Outstanding Educator/Mentor Award is to honor an individual who has made outstanding contributions to education and mentorship of students and young engineers within the fields of interest of the IEEE Industry Applications Society.
- Prize: \$3,000.
- Basis for Judging: Selection is based on total contribution to the profession through any and all IEEE IAS activities in which the candidate is engaged.
- **2020 Awardee: Bhim Singh**



IAS Outstanding Educator/Mentor (Deadline: March 15)

Basis for Judging:

- Development of educational materials: books, course materials, papers on education, audiovisual teaching materials, on-line courses, etc.
- Relevant teaching/mentorship activities and stimulation of students and young professionals: bachelor, master and doctorate courses and supervision activities, conference tutorials, webinars, on-line tutorials, etc
- Mentoring of students or professionals within the industry to help further their understanding of technology and market dynamics, aiming to enhance their career.
- Innovations in teaching/mentoring: development of new teaching methodologies and materials, courses, teaching laboratory equipment development, industry training, etc.
- Research activities relevant to excellence in teaching and training of students and young professionals: inventions, patents, utility models, etc. and description on how these activities increase teaching/mentoring excellence
- Excellence in teaching/mentorship: awards and recognitions received by the candidate and former students/young co-workers, relevant positions held by former students/young co-workers, etc.
- Development/presentation of tutorials at IAS conferences and content at the IAS Resource Center.
- Creation/participation of/in university/industry training actions for students and young professionals.
- Tutoring university master/doctorate students in enterprise internship training.



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



IEEE Richard Harold Kaufmann Award

The IEEE Richard Harold Kaufmann Award was established by the IEEE Board of Directors in 1986.

The Award is named in honor of Richard Harold Kaufmann in memory of his many important contributions to industrial systems engineering and his dedicated service to the IEEE Industry Applications Society. Recipient selection is administered through the Technical Field Awards Council of the IEEE Awards Board.

Sponsor: IEEE Industry Applications Society

Presented to: An individual or team of up to three persons

Scope: For outstanding contributions in industrial systems engineering

Prize: The award consists of bronze medal, certificate, and honorarium.

Basis for judging: In the evaluation process, the following criteria are considered: exceptional contributions to design or application of systems technology, application of systems technology, apparatus, devices or materials for plant power distribution, drive systems, process control or other utilization systems, and the quality of the nomination.

Nomination deadline: 15 January

Endorsement deadline: 31 January

2020: Kouke Matsuse, Meiji University, Japan

“For pioneering contributions to the advancement of sensorless vector control of AC drives and multilevel inverters for industrial applications.”



IEEE Richard Harold Kaufmann Award Past Recipients

- | | |
|----------------------------|-------------------------------|
| 2020 – Kouke Matsuse | 2004 – Richard L. Nailen |
| 2019 - Susumu Tadakuma | 2003 – Edward LaVerne Owen |
| 2018 - Greg Stone | 2002 – H. Landis Floyd |
| 2017 - Erling Hesla | 2001 – Louie J. Powell, Jr. |
| 2016 - G.S. Peter Castle | 2000 – Alton Dewitt Patton |
| 2015 - Charles John Mozina | 1999 – Baldwin Bridger, Jr. |
| 2014 - Robert D. Lorenz | 1998 – James A. Oliver |
| 2013 - Kaushik Rajashekara | 1997 – Thomas E. Sparling |
| 2012 - John P. Nelson | 1996 – Marcus O. Durham |
| 2011 - David D. Shipp | 1995 – M. Shan Griffith |
| 2010 - Gerald T. Heydt | 1994 – Daniel J. Love |
| 2009 - Ronald G. Harley | 1993 – George W. Walsh |
| 2008 – Hirofumi Akagi | 1992 – Kao Chen |
| 2007 – Md. Azizur Rahman | 1991 – John R. Dunki-Jacobs |
| 2006 – George W. Younkin | 1990 – Renee Castenschiold |
| 2005 – A.P. Meliopolous | 1989 – Bernard W. Whittington |
| | 1988 – Walter C. Huening, Jr. |

IAS Distinguished Lecturer (Deadline: March 31)

- Nominator and Candidate contact information
- One page biography of the Candidate with a color photo in the upper left corner and contact email address
- List of the lecture topics with the titles and short abstracts (max. 600 characters each)



IEEE INDUSTRY APPLICATIONS SOCIETY
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IAS Distinguished Lecturers 2019-2020

https://engage.ieee.org/ES-TA-1017-2019-IAS-NLTR-June_IAS-DL.html

- **Afshin Majd**
- **Bulent Sarlioglu**
- **Pablo Simon Narvaez**
- **Giuseppe Parise**
- **Jose Antonino-Daviu**
- **Lucia Pia Torres**
- **Po-tai Cheng**
- **Ronghai Qu**
- **Niwas Singh**

IEEE Fellow (Deadline: March 1)

- Any person, including non-IEEE members, is eligible to serve as a nominator. The following are exceptions: Members of the IEEE Board of Directors, members of the IEEE Fellow Committee, IEEE Society/Technical Council Fellow Evaluating Committee Chairs, members of IEEE Society/Technical Council Fellow Evaluating Committee reviewing the nomination, or IEEE Staff.
- The nominator is responsible for preparing the IEEE Fellow Grade Nomination Form.
- The nominator is responsible for soliciting five references capable of assessing the nominee's contributions. References must be IEEE Fellows.
- There is the option of soliciting no more than three endorsements capable of supporting the nomination. Any person, including non-IEEE members, may submit an endorsement. The following individuals are ineligible to serve as endorsements: members of the IEEE Board of Directors, members of the Fellow Committee, members of the IEEE Society/Technical Council Fellow Evaluating Committee reviewing the nomination or IEEE Staff. In addition, a nominator may not serve as an endorser for a nomination he/she is submitting.
- Complete list of IAS Fellows at webpage:
<https://ias.ieee.org/awards/ieee-fellow-program/ias-fellows.html>



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



IAS members in IEEE Fellow Class 2020

Mohamed Benbouzid

Andrea Cavagnino

Keith Corzine

Kevin Lee

Yun Wei Li

Massimo Mitolo

Burak Ozpineci

Wei Qiao

Mahinda Vilathgamuwa



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- Report on IAS editorial meeting - 5 min. (Andy Knight, IAS Publications Chair)



IEEE IAS 2020 Publications Update - IPCSD Meeting

Andy Knight

Overview of IAS Publications

IAS Owned

- ▶ Transactions on Industry Applications
- ▶ Industry Applications Magazine
- ▶ Open Journal of Industry Applications

2020 Changes

- ▶ Launch of Open Journal of Industry Applications
- ▶ New Publications Chair for 2021 – Ayman el Refaie
- ▶ We will start the 2021 Prize Paper Process before the end of 2020
- ▶ Putting Industry Applications Magazine into IEEE iPad App
- ▶ Looking to link IAM advertising to IAS Newsletter

Overview of IAS Publications

IAS Co-Sponsored

- ▶ Journal of Emerging and Selected Topics on Power Electronics (50%, PEELS Admin)
 - ▶ Ojo is EiC. Very important for IPCSD to support this co-owned journal
- ▶ Transactions on Transportation Electrification (IAS 30%, PEELS Admin)
- ▶ Transactions on Sustainable Energy (IAS 10%, PES Admin)
- ▶ Electrification Magazine (IAS 10%, PES Admin)
- ▶ Journal of Emerging and Selected Topics on Industrial Electronics (IAS 1/7th, IES Admin)
- ▶ Transactions on Smart Grid (Technical Sponsor Only, PES Admin)

Prize Paper Process

- ▶ Each Technical Committee and Special Issue given right to nominate at least one paper
- ▶ Additional nomination for every 10% of papers published
 - e.g. 2019:
 - 719 papers published in Transactions on Industry Applications
 - EMC, IPCC, IACC all published more than 72 papers, so were allowed to nominate 2 papers
- ▶ Potentially 23 nominations for TIA, 15 for IAM
- ▶ This year, many delays: 14 nominations for TIA, 8 for IAM

- ▶ Nominations reviewed by ad hoc committee including current / past TCPRC

2020 Prize Paper Award Recipients

Transaction on Industry Applications

First

Cogging Torque Minimization and Performance of the Sub-Fractional HP BLDC Claw-Pole Motor

S. Leitner, H. Gruebler and A. Muetze,
<https://ieeexplore.ieee.org/document/8738872>

Second

An Investigation on Diagnosis-Based Power Switch Lifetime Extension Strategies for Three-Phase Inverters

E. Ugur, S. Dusmez and B. Akin,
<https://ieeexplore.ieee.org/document/8515087>

Third

Modeling for Series Arc of DC Circuit Breaker

Y. Kim and H. Kim,
<https://ieeexplore.ieee.org/document/=8493346>

2020 Prize Paper Award Recipients

Industry Applications Magazine

First

How Reliable Is Your Uninterruptible Power System?: Eliminating Single Points of Failure

S. Abaray, S. Beaver and C. Nguyen

<https://ieeexplore.ieee.org/document/8693959>

Second

A New Adaptive Controller in Wireless Networked Control Systems: Developing a Robust and Effective Controller for Energy Efficiency

Raul K. Mansano, R. J. Rodrigues, E.P.Godoy and D Colon

<https://ieeexplore.ieee.org/document/8585017>

2020 Transactions Highlights

- ▶ Number of Papers Decreased Slightly from 2019
 - Jan/Feb 2020 Regular Issue: 81 papers of 105 planned
 - Other issues: 110, 109, 103, 102, and 110 papers
- ▶ Conference Paper Similarity Check
 - Exception ended for papers not posted in Xplore
 - 36 papers returned to authors so far in 2020
 - 32 from Process Industries Dept., 4 from I&CPS Dept.
- ▶ Impact Factor Increased from 3.347 to 3.488
- ▶ Many Requests for Extensions of Due Dates
- ▶ A 2021 Special Issue is on Hold

IA Magazine – Changes this year

- ▶ Moved from historical 12-month publication plan to 6-month publication plan
 - September 2020 (3 issues Jan-Jun 2021)
 - March 2021 (3 issues Jul-Dec 2021)
- ▶ Bundled Advertising
- ▶ IEEE App (coming soon!)
- ▶ Updated Author Instructions

2020 Issue Themes

- ▶ Jan/Feb – Standards
- ▶ March/April – Automation and Control
- ▶ May/June – Electrical Safety
- ▶ July /August – Power Distribution
- ▶ Sept/Oct – Power Systems
- ▶ Nov/Dec – Motors and Drives

2021 Issue Themes

- ▶ Jan/Feb – Standards
- ▶ March/April – Energy Management
- ▶ May/June – Electrical Safety
- ▶ July /August – System Protection & Control
- ▶ Sept/Oct – Power Systems
- ▶ Nov/Dec – Motors and Drives

Manuscript Central and Editorial Issues

PRAC is coming

- ▶ Need to look at AE activity
 - ▶ Are you AE's responsive?
- ▶ Need to have gender and geographical diversity
- ▶ IPCSD publishes, edits, reviews, submits, the majority of TIA papers

Open Journal of Industry Applications

Gold OA Journal

- ▶ Pericle is the EiC
- ▶ Low acceptance rate – high quality
- ▶ Need 20 publications per year to get Impact Factor
- ▶ Looking for high quality highly citable papers to get high impact factor

Detailed Pubs Material

- ▶ Slides from the full IAS Publications Meeting are available for download
- ▶ https://www.dropbox.com/sh/nwu5wnviw9hm28n/AABFE8aBGR-BAjgLh_wchjJPa?dl=0



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- Report on IPCSD standards committee - 5 min. (Emmanuel Agamloh, IPCSD Standards committee Chair)

IPCSD Standards Development Committee

Emmanuel Agamloh
IPCSD Standards Chair

IPCSD Stds Development Committee

- Chair: Emmanuel Agamloh
- IPCSD Std Committee Comprises Chairs of Standards Subcommittees of the six IPCSD Technical Committees
- Other ex-officio members include the IPCSD Leadership, IAS Leadership, IAS Standards Chair
- Technical Committee Standards Chairs:
 - Haran Karmaker – EMC
 - Kevin Lee – IDC
 - Yuri Khersonsky – IPCC
 - Adel Nasiri – RSEC
 - Zheyu Zhang – PEDCC
 - Bruno Lequesne – TSC

IPCSD Stds Development Committee

IEEE

Society Layer

Power Electronics Society (PELS)

Industrial Electronics Society (IES)

Industry Applications Society (IAS)
Standards Chair:
Daleep Mohla

Power and Energy Society (PES)

Other (39 in total)

Department Layer

Industrial and commercial Power Systems Department

Industrial Power Conversion System Department (IPCSD)
Standards Chair:
Emmanuel Agamloh

Manufacturing Systems Development and Applications Department

Process Industries Department

Committee layer

Electric Machines:
Haran Karmaker

Industrial Power Converter:
Yuri Khersonsky

Industrial Drives:
Kevin Lee

Renewable and Sustainable Energy Conversion Systems:
Adel Nasiri

Transportation Systems:
Bruno Lequesne

Power Electronics Devices and Components:
Zheyu Zhang

IPCSD Standards Scope

The scope of the Industrial Power Conversion Systems Department (IPCSD) includes all matters within the scope of the industry Applications Society related to the electrical power conversion components and systems, in particular, electrical machines, drives, power converters and power electronic devices, components, and systems in industrial and commercial applications including transportation systems and renewable energy systems. The IPCSD Standards Committee shall create voluntary consensus engineering standards, recommended practices and guidelines for development, design, manufacture, application of electrical power conversion components and systems. The committee shall seek to establish industry leadership for the promotion of safe, reliable and energy efficient power conversion components and systems.

Activities

Timeline

- Chair appointed - January 2020
- Process initiated with IEEE SA for formal recognition - January 2020
- IPCSD SDC Policies and Procedures (P&P) submitted Feb/March 2020 - **Approved**

- IPCSD Standards Committee has developed Generic Policies and Procedures for Standards Subcommittees of IPCSD
 - Submitted to SA for approval – May/June 2020, Revised September/October 2020, Scheduled for AudCom Meeting Date: December, 1 2020

New Projects

- IDC – Motor-drive standard
- PEDCC - Gate drive characterization
- *Two New PARs (Project Authorization Requests) submitted and Approved*
 - P2943: Energy Efficiency Test Methods for Three-Phase Variable Frequency Drive Systems
 - *WG Chair : Kevin Lee*
 - P2964: Standard for Datasheet Parameters and Tests for Integrated Gate Drivers
 - *Chair: Tanya Gachovskaya, Vice Chair: Zheyu Zhang*

Ongoing Projects

- EMC – Collaborating with EMS of PES on standards
 - P1812 – IEEE Guide for testing permanent magnet machines
 - P11 - Standard for Rotating Electric Machinery for Rail and Road Vehicles
 - [IEEE P252](#) – IEEE Standard Test Procedure for Polyphase Induction Motors Having Liquid in the Magnetic Gap
 - [IEEE P620](#) – IEEE Guide for the Presentation of Thermal Limit Curves for Squirrel Cage Induction Machines
- Other ongoing projects are regularly updated on IPCSD website
 - <https://site.ieee.org/ias-ipcspd/>



The screenshot displays the IEEE-IAS Industrial Power Conversion Systems Department website. The page features a navigation menu with options like Home, About Us, Publications, and a search bar. A 'Standards' section is highlighted, showing a list of ongoing projects. The table below summarizes the visible projects from the screenshot.

Standard Number	Title	IEEE Standard	Status	Contact
IEEE P11	Standard for Rotating Electric Machinery for Rail and Road Vehicles	P11	Under review	ipcsd@ieee.org
IEEE P1812	IEEE Guide for testing permanent magnet machines	P1812	Under review	ipcsd@ieee.org
IEEE P252	IEEE Standard Test Procedure for Polyphase Induction Motors Having Liquid in the Magnetic Gap	P252	Under review	ipcsd@ieee.org
IEEE P620	IEEE Guide for the Presentation of Thermal Limit Curves for Squirrel Cage Induction Machines	P620	Under review	ipcsd@ieee.org
IEEE P1100	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1100	Under review	ipcsd@ieee.org
IEEE P1101	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1101	Under review	ipcsd@ieee.org
IEEE P1102	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1102	Under review	ipcsd@ieee.org
IEEE P1103	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1103	Under review	ipcsd@ieee.org
IEEE P1104	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1104	Under review	ipcsd@ieee.org
IEEE P1105	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1105	Under review	ipcsd@ieee.org
IEEE P1106	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1106	Under review	ipcsd@ieee.org
IEEE P1107	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1107	Under review	ipcsd@ieee.org
IEEE P1108	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1108	Under review	ipcsd@ieee.org
IEEE P1109	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1109	Under review	ipcsd@ieee.org
IEEE P1110	IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles	P1110	Under review	ipcsd@ieee.org

Agenda

- ❑ IPCSD involvement in APEC update – 5 min (Fernando Briz, IPCSD Vice-Chair)



- Since IAS is a co-sponsor of the conference, IPCSD is interested in getting more involved in its organization
- First contact established in 2018 by Ayman (IPCSD Chair). Together with IPCSD Committee Chairs, Ayman provided a list of potential track chairs to serve at APEC 2019, some of these candidates were selected
- Due to Covid'19 among other reasons, not much has been done since then. Need to systematize/consolidate the collaboration, and progressively increase the participation of IAS-IPCSD in APEC



IEEE IN
Industrial

Track chairs for APEC 2020

- Which tracks are aligned with scopes of IPCSD committees?
- Is your committee represented?
- If not (or not sufficiently), please propose candidates. Should have experience in similar roles and be well-known experts in the field
- Email on this regard sent to Committee Chairs on 10/22, waiting for feedback

	Track ID	Track Name	Fname	Lname	E
	1	AC-DC Converters	Gerry	Moschopoulos	g
	2	AC-DC Converters	Mehdi	Nariman	n
	3	AC-DC Converters	Arijit	Banerjee	a
	4	DC-DC Converters	Olivier	Trescases	o
	5	DC-DC Converters	Cahit	Gezgin	c
	6	DC-DC Converters	Xin	Zhang	x
	7	DC-DC Converters	Sombuddha	Chakraborty	s
	8	Power Electronics for Utility Interface	Ali	Khajehoddin	k
	9	Power Electronics for Utility Interface	Jonathan	Kimball	k
	10	Power Electronics for Utility Interface	Mithat	Kisacikoglu	m
	11	Motor Drives and Inverters	Matt Woongkul	Lee	l
	12	Motor Drives and Inverters	Rakib	Islam	r
	13	Motor Drives and Inverters	Ziaur	Rahman	z
	14	Motor Drives and Inverters	Dinesh	Kumar	d
	15	Devices and Components	Minjie	Chen	m
	16	Devices and Components	Ali	Salih	a
	17	Devices and Components	Hengzhao	Yang	h
	18	Power Electronics Integration and Manufacturing	Liming	Liu	l
	19	Power Electronics Integration and Manufacturing	Jim	Marinos	j
	20	Power Electronics Integration and Manufacturing	Ayman	Fayed	a
	21	Power Electronics Integration and Manufacturing	Rashmi	Prasad	r
	22	Modeling and Simulation	James	Victory	j
	23	Modeling and Simulation	Suman	Debnath	s
	24	Modeling and Simulation	Arash	Khoshkbar-Sadigh	a
	25	Modeling and Simulation	Abraham	Gebregergis	a
	26	Control	Martin	Ordenez	m
	27	Control	Seungdeog	Choi	s
	28	Control	Jaber	Abu Qahouq	j
	29	Wireless Power Transfer	Erdem	Asa	e
	30	Wireless Power Transfer	Raghav	Khanna	r
	31	Wireless Power Transfer	Mehdi	Farasat	m
	32	Renewable Energy Systems	Haoyu	Wang	w
	33	Renewable Energy Systems	Tao	Yang	t
	34	Renewable Energy Systems	Eric	Cheng	e
	35	Renewable Energy Systems	Fei	Gao	f
	36	Renewable Energy Systems	Majid	Pahlevani	m
	37	Transportation Power Electronics	Harish	Krishnamoorthy	h
	38	Transportation Power Electronics	Yingying	Kuai	y
	39	Transportation Power Electronics	Rukmi	Dutta	r
	40	Transportation Power Electronics	Di	Pan	d
	41	Power Electronics Applications	Pedro	Alou	p
	42	Power Electronics Applications	Brian	Johnson	b
	43	Power Electronics Applications	Jeff	Nilles	j
	44	Power Electronics Applications	Rostan	Rodrigues	r
	45	Magnetics	Jason	Pries	j

Track Chair tasks and responsibilities are:

Task/Milestone	Deadline APEC 2019
Review Process:	
<ul style="list-style-type: none"> Assign reviewers 	Aug 10th
<ul style="list-style-type: none"> Oversee Review Process (Review submission deadline): 	Aug 10 th - Sept 1st
Program:	
<ul style="list-style-type: none"> Make Final decisions 	Sept 29-30 (attend TPC Meeting in Anaheim)
<ul style="list-style-type: none"> Group accepted papers in sessions 	
<ul style="list-style-type: none"> Assign Session Chairs 	Oct 31st
<ul style="list-style-type: none"> Deal with paper withdrawal backfills to lecture sessions 	Nov 21st – Dec 1st
<ul style="list-style-type: none"> Deal with Session Chair cancellation/replacement 	
Presentation Collection:	
<ul style="list-style-type: none"> Coordinate Presentation collection with Session Chairs 	Feb 18 – March 4th





IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- Key updates of technical committees (standards, websites, papers & conferences, other) - 30 min
 - * EMC (Akira Chiba, EMC Chair)

EMC Current Associate Editors

- Antonio J. Marques Cardoso Portugal
- Giulio De Donato Italy
- Yao Duan USA
- Greg Heins Australia
- Gianmario Pellegrino Italy
- Alberto Tessarolo Italy
- Rajeev Vyas USA
- Katsumi Yamazaki Japan
- Ronghai Qu China
- Rukmi Dutta Australia
- Zhang Pinjia China
- Parsa Leila USA
- Silvio Vaschetto Italy
- Min-Fu Hsieh Taiwan
- Mircea Popescu UK

**Thank you to all
EMC AEs as well
as our TIA Paper
Reviewers !**

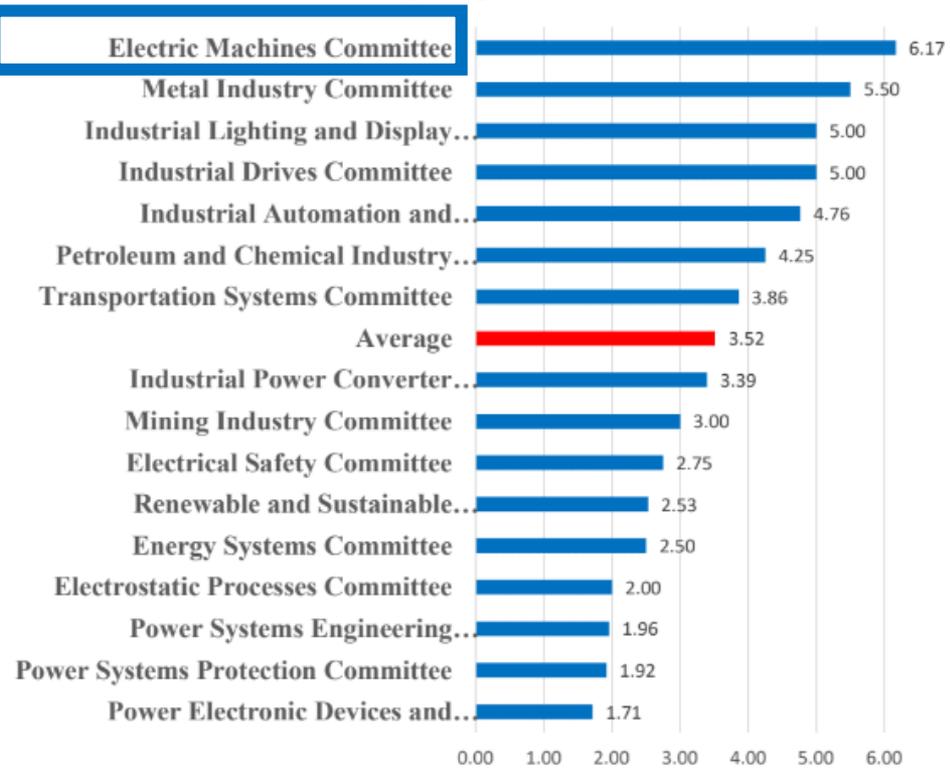


Papers Per AE by Committee

Average

Power Electronic Devices and Components Committee	1.71
Power Systems Protection Committee	1.92
Power Systems Engineering Committee	1.96
Electrostatic Processes Committee	2.00
Energy Systems Committee	2.50
Renewable and Sustainable Energy Conversion Systems Committee	2.53
Electrical Safety Committee	2.75
Mining Industry Committee	3.00
Industrial Power Converter Committee	3.39
Average	3.52
Transportation Systems Committee	3.86
Petroleum and Chemical Industry Committee	4.25
Industrial Automation and Control Committee	4.76
Industrial Drives Committee	5.00
Industrial Lighting and Display Committee	5.00
Metal Industry Committee	5.50
Electric Machines Committee	6.17

Average Papers Per AE



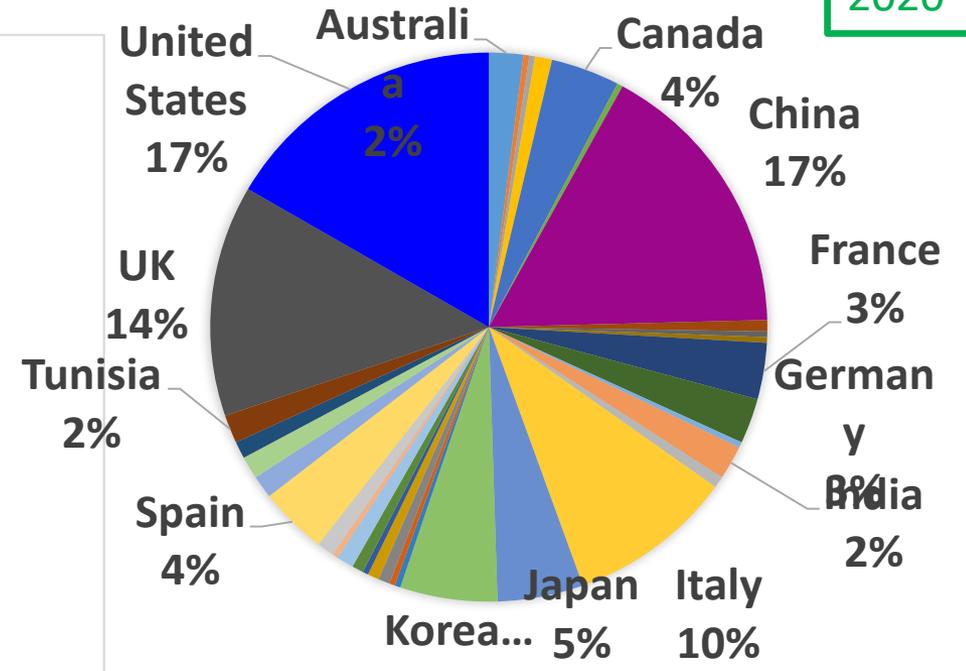
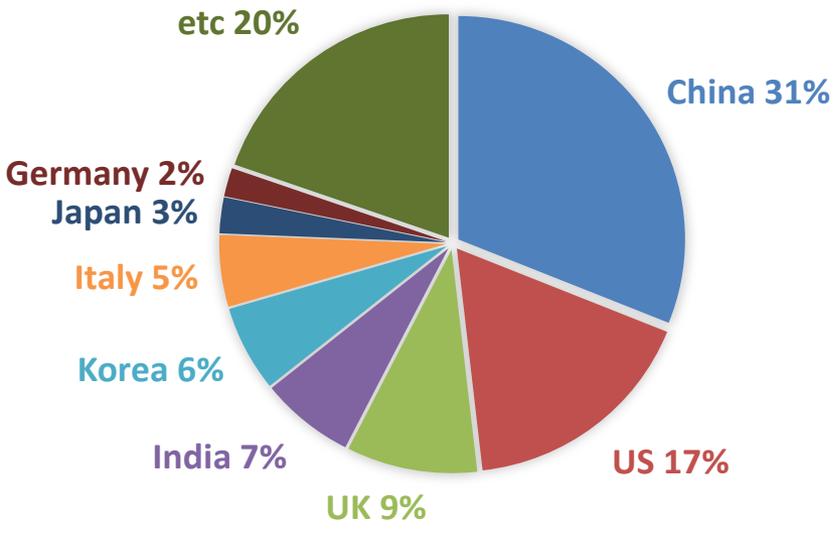
EMC Associate Editors are overloaded. We need more!!



SOCIETY

to Practice

SUBMISSION BY AUTHOR GEOGRAPHY 2020 OCT



Submission from China has been increased.



Process for Prospective Authors

2020

- EMC Members who wish to submit papers presented at an IAS sponsored conference for transactions
- For invitation, send Email to
 - Current Chair of EMC (achiba@ieee.org)
- Include in your email:
 - Given and Family Name
 - Corresponding email
 - Affiliation
 - Paper Title
 - Conference Name and Date
- On manuscript submission, explain the differences between the conference and Transactions versions in the cover letter.
- For more information visit EMC website : <http://sites.ieee.org/ias-emc/publications/>



Committee paper award process

- 8 top papers with highest ranking from digest review process selected for full review by panel
- 6 member committee of distinguished reviewers
 - Good Mix of industry (3) and academia (3)
 - Previous committee chairs, paper award winners, subject matter Experts
 - Prof. Akira Chiba
 - Prof. Aldo Boglietti
 - Dr. Bruno Lequesne
 - Dr. Mircea Popescu
 - Prof. Wen Soong
 - Dr. Haran Karmaker

Transaction paper is more prestigious, thus we need more time and improvements in selection process. I wonder if index is reliable.



2020 Committee Officers

- **Chair:** Prof. Akira Chiba (chiba@ee.e.titech.ac.jp)
- **Vice Chair:** Dr. Greg Heins (greg.heins@regalbeloit.com)
- **Secretary:** Prof. Rukmi Dutta (rukmidutta@ieee.org)
- **Past Chair:** Prof. Emmanuel Agamloh (eagamloh@ieee.org)





Electric Machines
Committee

EMC **LinkedIn** Group past..past Chair **Pete**

IEEE IAS Electric Machines Committee Meeting.



Liaison Report – PES Motor Subcommittee

Update on IEEE Standard

- 11: Standard for Rotating Electric Machinery for Rail and Road Vehicles
- 1812: Guide for testing PM machines
- 1415: Induction Machinery Maintenance Testing and Failure Analysis
- 620: Guide for the Presentation of Thermal Limit Curves for Squirrel Cage Induction Machines
- 252: Standard Test Procedure for Polyphase Induction Motors Having Liquid in the Magnetic Gap

Panel Sessions for 2021 PES General Meeting

IAS EMC and PES EMC were not good. I would like to link these societies.





IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- Key updates of technical committees (standards, websites, papers & conferences, other) - 30 min
 - * IDC (Mahesh Swamy, EMC Chair)



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



IDC Portion of IPCSD Department Meeting

Mahesh Swamy, IDC Chair

Pericle Zanchetta

IPCSD Chair

Wednesday, November 4, 2020

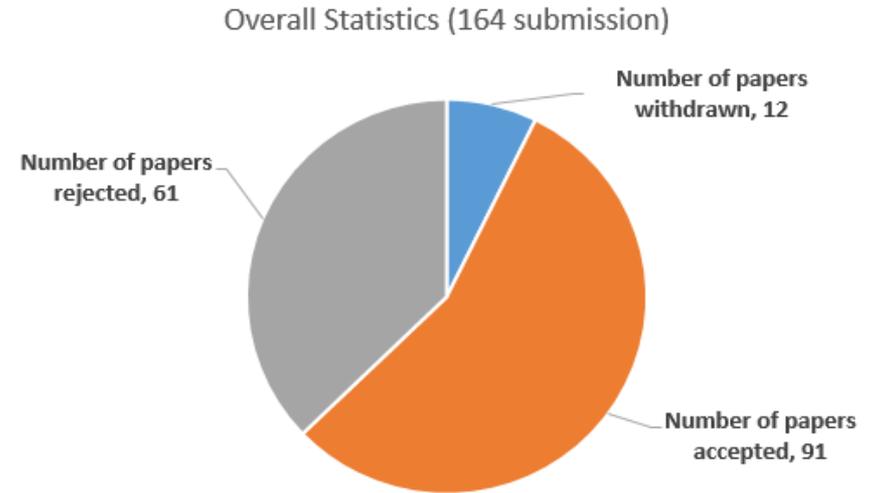


IDC Digest Submissions (164 digests)

1. General	8	
2. Induction motor drives	13	
3. PM and IPM motor drives	29	
4. Control of electric drives	33	
5. Drives applications	15	
6. Sensor-less drives	16	
7. Sensors and transducers	3	12. New technologies and integrated drives 8
8. Diagnosis, reliability and EMI	9	13. Electrical Drives for Aerospace and Traction Applications 9
9. High speeds and direct drives	1	14. Electrical drives for wind & other renewable integration 4
10. Energy efficient motor drives	6	15. Drive-utility interface 3
11. Medium voltage drives and high-power drives	7	

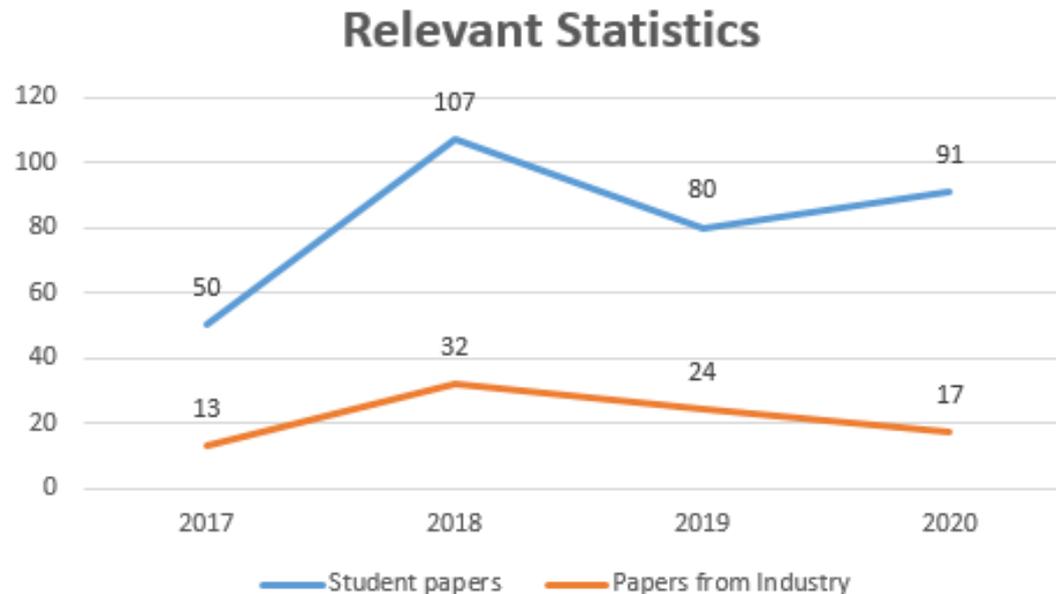
Overall Statistics (2020)

- **Number of digests: 164**
- **Number of papers withdrawn: 12**
(Papers withdrawn after being accepted: 7)
- **Number of papers accepted: 91**
(Originally 98 with 7 withdrawn papers)
- **Number of papers rejected: 61**
- **The acceptance ratio is 59.7% for 98 originally accepted papers.**
- (58 papers were distributed into 14 oral sessions.)
- (33 papers were assigned to 3 poster sessions.)
- **6 oral sessions and 3 poster sessions appeared in the technical program.**
- **Review Quality:**
 - All papers with at least 3 reviews
 - The average number of reviews per paper was around 4.2



Relevant Statistics

- Student papers: 91 (80 in 2019, 107 in 2018, 50 in 2017)
- Papers from industry: 17 (24 in 2019, 32 in 2018 and 13 in 2017)
- Government involvement: 3

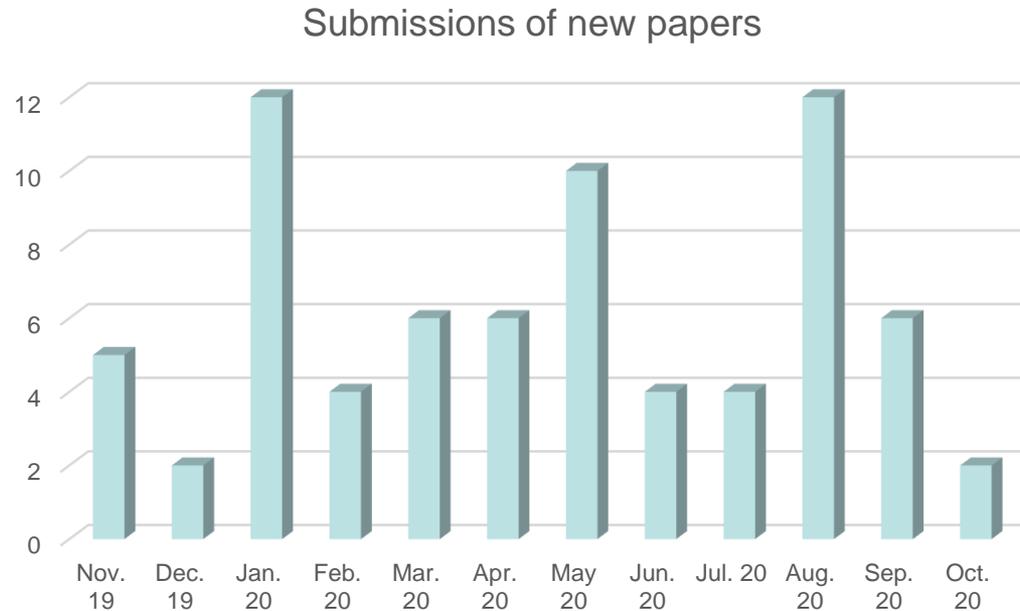


Number of original submissions (new papers)

	Number of new submissions
Nov. 2019-Dec. 2019 TCPRC: Mahesh Swamy	9
Jan. 2020-Dec. 2020 TCPRC: Luca Zarri	64
TOTAL	73
Withdrawn papers	1
TOTAL	72
Papers invited and not submitted (yet)	16
TOTAL	89

Previous year	
Oct. 2018-Oct.2019	98

Time distribution of the new submissions (original submissions)



Acceptance rate and days to final decision

Period: Nov. 2019 – Oct. 2020	Num. of papers
Accepted papers	13
Rejected papers	23
Total	36

Acceptance rate	%
Acceptance rate (2020)	36%
Acceptance rate in 2019	45%
Acceptance rate in 2018	51%

	2020	2019
Days to first decision	67	75
Days to final decision	96	117
Median	85	n.a.

Mission Statement of IDC Standards Subcommittee

- The goal of the Standards Subcommittee of the IEEE Industrial Drives group is to participate in the development of Standards and/or Practices pertaining to electric drive systems. Electric drive systems include but are not limited to all types of electrical motors and drives that are used for controlling torque and speed of said electrical motors.
- Participation is not limited to co-operating with other Standards groups or organizations within the IEEE and/or other technical bodies of the world but also includes taking a leading role in formulating new standards to facilitate meaningful applications of said standards in the industrial and commercial workplace.

Approval Status of First Working Group Project

- Project Title: P2943-Energy Efficiency Test Methods for Three-Phase Variable Frequency Drive Systems.
- Scope Statement: This standard defines a common test protocol for determination of energy efficiency for motor drive systems, for an AC motor and a combination of a Variable Frequency Drive (VFD), AC motor, and ancillary equipment. Performance classifications for the said motor drive systems are also defined.
- Project Status: On September 24, 2020, the IEEE SA Standards Board approved the project.
- Project Timing: Until December 31, 2024.





IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- Key updates of technical committees (standards, websites, papers & conferences, other) - 30 min
 - * IPCC (Luca Solero, IPCC Chair)

IPCSD

Industrial Power Converters Committee

Virtual Meeting

November 4th, 2020

Membership

- **Membership roster is at 426 (+17 people since last meeting)**
 - **Online registration on IPCC website**
(<http://sites.ieee.org/ipcc/>)
 - **Several non active members, an email message will be sent to all the members asking a reply in case they would like to be removed from the members' list.**

Committee for 2020

Committee Officers

Chairman	Luca Solero	luca.solero@uniroma3.it
Vice-Chairman	Xiaonan Lu	xiaonan.lu@ieee.org
Secretary	Yongsug Suh	ysuh@jbnu.ac.kr
Past Chairman	Grant Pitel	gpitel@magna-power.com

Industrial Power Converter Subcommittees

Transactions Review Chair	Pericle Zanchetta	pericle.zanchetta@nottingham.ac.uk
Transactions Review Co-Chair	Stefano Bifaretti	stefano.bifaretti@uniroma2.it
Fellow and Award Nominating Chair	Po-tai Cheng	ptcheng@ieee.org
Standards Chair	Lixiang Wei ✨	lixiangw@ieee.org
Special Activity Chair	Rostan Rodrigues ✨	rostan.rodrigues@us.abb.com
Asian Liaison Officer	Junichi Itoh	itoh@vos.nagaokaut.ac.jp
Asian Liaison Officer	Jeehoon Jung	jhjung@unist.ac.kr
European Liaison Officer	Petar Grbovic	petar.grbovic@uibk.ac.at
European Liaison Officer	Shafiq Odhano	shafiq.odhano@newcastle.ac.uk

ECCE 2020 – Track E

Power Converter Topologies

Vice Chair: Yongsug Suh, *Jeonbuk National University*

Vice Chair: Luca Solero, *Roma Tre University*

Vice Chair: Gerry Moschopoulos, *Western University*

Manuel Arias, *University of Oviedo, Spain*

Dong Cao, *University of Dayton, USA*

Petar Grbovic, *University of Innsbruck, Austria*

Wenkang Huang, *Infineon Technologies*

Diego Lamar, *University of Oviedo, Spain*

Santanu Mishra, *Indian Institute of Technology Kanpur, India*

Shafiq Odhano, *University of Newcastle, UK*

Grant Pitel, *Magna-Power Electronic, USA*

Gabriele Rizzoli, *University of Bologna, Italy*

Li Zhang, *Nanyang Technological University, Singapore*

Pritam Das, *Binghamton University, USA*

Brian Cheng, *Texas Instruments*

Mohamed Youssef, *University of Ontario Institute of Technology,
Canada*

Zhiliang Zhang, *Nanjing University of Aeronautics
and Astronautics, China*

Shangzai Pan, *Wuhan University, China*

Leila Parsa, *University of California at Santa Cruz, USA*

Majid Pahlevani, *Queen's University, Canada*

Mehdi Narimani, *McMaster University, Canada*

Mahshid Amirabadi, *Northeastern University, USA*

Stefano Bifaretti, *Univ. of Rome Torvergata, Italy*

Young-Hun Cho, *Konkuk National University, Korea*

Marco di Benedetto, *University Roma Tre, Italy*

Jun-ichi Itoh, *Nagaoka University of Technology, Japan*

Kyo-Beum Lee, *Ajou University, Korea*

Roberto Petrella, *University of Udine, Italy*

Sebastian Rosado, *UTRC, Ireland*

Jon Are Suul, *SINTEF, Norway*

Lixiang Wei, *Rockwell Automation, USA*

ECCE 2020 – Track F

Control, Modelling and Optimization of Power Converters

Vice Chair: Xiaonan Lu, *Temple University*

Vice Chair: Khurram Afridi, *Cornell University*

Vice Chair: Laili Wang, *Xi'an Jiaotong University*

Andrea Formentini, *University of Nottingham*

Alessandro Lidozzi, *ROMA TRE University*

Vito Giuseppe Monopoli, *Politecnico di Bari*

Marcello Pucci, *INM-CNR*

Yuhua Du, *Temple University*

Ghanshyamsinh Gohil, *University of Texas, Dallas*

Fei Lu, *Drexel University*

Jin Tan, *National Renewable Energy Laboratory*

Arash Khoshkbar-Sadigh, *Penn State University, University Park*

Dongbo Zhao, *Argonne National Laboratory*

Sheng Zheng, *Oak Ridge National Laboratory*

Jiangbiao He, *University of Kentucky*

Malik Elbuluk, *University of Akron*

Dehong (Mark) Xu, *Zhejiang University*

Bilal Akin, *University of Texas at Dallas*

David Perreault, *Massachusetts Institute of Technology*

Elisabetta Tedeschi, *Norwegian University of Science
and Technology*

Ali Khajehoddin, *University of Alberta*

Daniel Costinett, *University of Tennessee Knoxville*

Luca Corradini, *University of Padova*

Saad Pervaiz, *Texas Instruments*

Rostan Rogriguez, *ABB*

Samantha Gunter, *General Motors*

Ali Bazzi, *University of Connecticut*

Madhav Manjrekar, *University of North Carolina at Charlotte*

Li Ran, *Chongqing University*

Feng Gao, *Shandong University*

Zhenbin Zhang, *Shandong University*

Xiong Du, *Chongqing University*

Min Chen, *Zhejiang University*

Cungang Hu, *Anhui University*

Haitao Hu, *Southwest Jiaotong University*

Li Zhang, *Hohai University*

Liu, Zeng, *Xi'an Jiaotong University*

Yi, Hao, *Xi'an Jiaotong University*

ECCE 2020 – Session Chairs Feedback

- Asked feedback to Track E and Track F Session Chairs
- Track E, 6 Session Chairs provided Comments
- Track F, X Session Chairs provided Comments
- there is rarely anyone asking questions, Session Chairs had to ask the authors to highlight their research idea/finding to fill in the time
- in almost all the Sessions 1 or 2 presenters did not show up
- many felt the need of guidelines on how to run the sessions.
- anyway, the general feeling is that the meeting was basically successful.

Special Activities - *Webinars*

- IPCC Call for Webinars published on <https://site.ieee.org/ipcc/news/>
- Scheduled a webinar to be presented by Prof. Dong Jiang on ‘Variable switching frequency PWM for converters’, on 11/4/2020
- Reviewing and finalizing webinar proposals from three more presenters as described below:
- Very High Frequency Power Conversion Technology, by Yueshi Guan (Dec’20)
- Partial Power Processing Converters: A Way to go Beyond the Limits, by Petar Grbovic (Jan’21)
- Topic under discussion..., by Sanjeevikumar Padmanaban (Feb ‘21)

Standards/Conferences

- **During the 2020 meeting the IPCC members were invited to propose potential projects on standards**
- **Volunteers from IPCC were also invited to propose themselves as Potential Track Chairs for APEC 2021**

Summary data for 2020 IAS IPCC Transactions Papers

- **198 Regular papers Submissions in Last 12 months completed – Increase of 27.7% from 2019 (155). Increase of 48.9% from 2018 (133). IPCC is for the first time the committee with more transactions submissions in IAS (Historically it has always been the EMC).**
- **Average review time for initial submission 75 days. It was 79 days in 2019, but 65 days in 2017. Still space for improvement.**
- **Accepted 50.26% in the past 12 months. It was 57.42% in 2019, 53% in 2018 and 49% in 2017). We are almost back to 2017 rate of acceptance. Considering there is the filter of conference presentation first, I believe an acceptance rate around 50% is reasonable.**



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- Key updates of technical committees (standards, websites, papers & conferences, other) - 30 min
 - * RSECS (Adel Nasiri, RSECS Chair)



IEEE Industry Applications Society Renewable and Sustainable Energy Conversion Systems Committee – **IEEE RSECS**

Prepared for IPCSD Meeting
Wednesday, Nov 4, 2020

Chair – Adel Nasiri, USA

Vice Chair, TPC – Akshay Kumar Rathore, Canada

Vice Chair – Ke Ma, China

Secretary – Eduard Muljadi

Past Chair – Yilmaz Sozer

Annual Meeting Summary

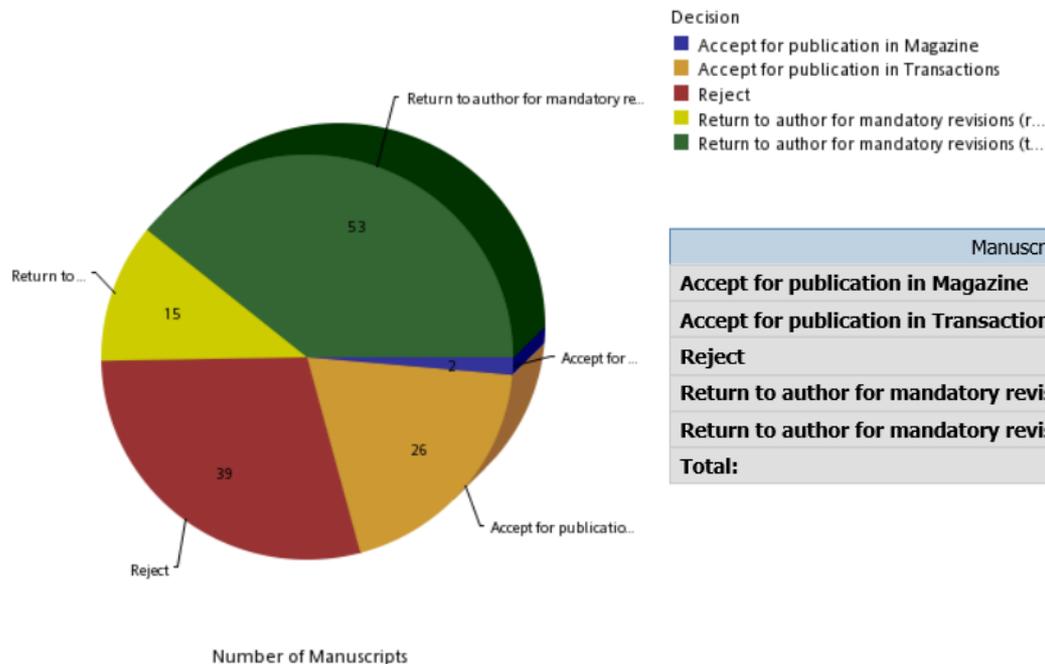
- Was held on Oct 23 at 9:30am-11am US CDT.
- Highest attendance was 49 (in line with previous years).
- Issues with noise and microphones in the beginning but rectified.
- TCPRC Report and ECCE and other conf Activities presented.
- RSECS Conference and Transactions Prize Paper Awarded.
- IEEE SCC21 activities presented.
- Committee members were invited for participation, AE, session chair, reviews.
- ECCE 2021 opportunities presented.

IAS Transactions and Magazine Decision Ratio

Submission to Renewable and Sustainable Energy Conversion Systems Committee

Jan 1, 2020-Oct 20, 2020

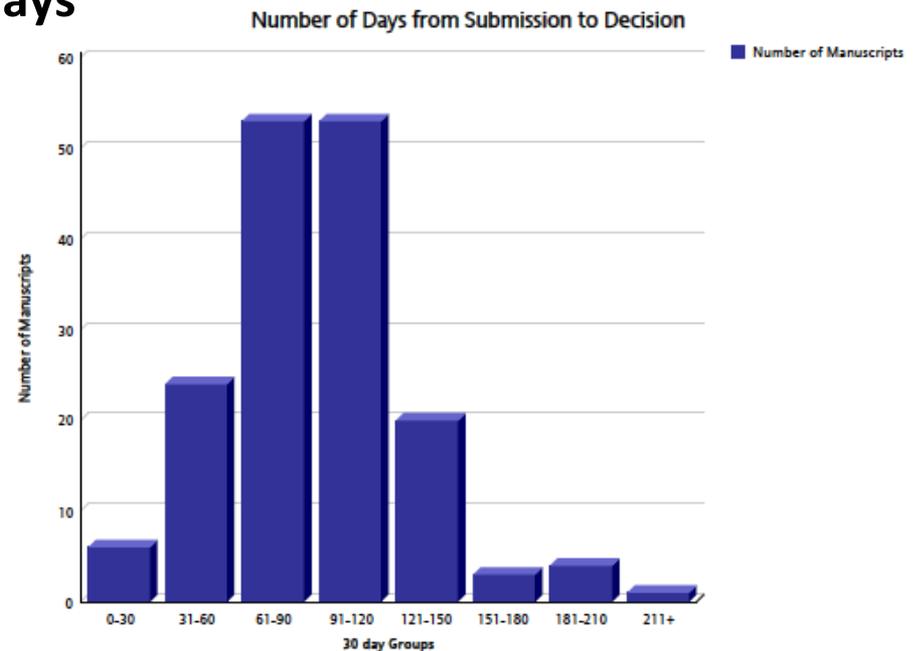
No. of Manuscripts by Decision



Manuscript Decision	Number of Manuscripts	Percentage of Total
Accept for publication in Magazine	2	1.5%
Accept for publication in Transactions	26	19.3%
Reject	39	28.9%
Return to author for mandatory revisions (rto address reviewer comments)	15	11.1%
Return to author for mandatory revisions (to address reviewer comments)	53	39.3%
Total:	135	100.0%

Publications Chair Report Jan 2018 – Sept 2019

- Paper submission to Renewable and Sustainable Energy Conversion Systems Committee:
 - **Total 164 (Jan 2018-Sep 2019);**
- Acceptance Rate (Jan 2018-Sep 2019):
 - **16.5% Transactions, 2% Magazine**
- **Average First Decision Time: 104 days**



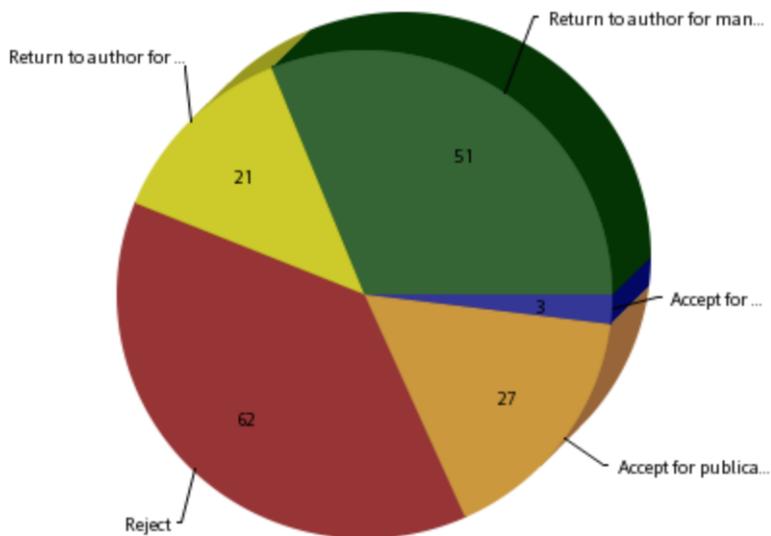
IAS Transactions and Magazine Decision Ratio

Submission to Renewable and Sustainable Energy Conversion Systems Committee

Jan 2018-Sep 2019

Decision Ratio By Manuscript Type

- Decision
- Accept for publication in Magazine
- Accept for publication in Transactions
- Reject
- Return to author for mandatory revisions (r...
- Return to author for mandatory revisions (t...



Decision	# Manuscripts	Percentage
Accept for publication in Magazine	3	1.83%
Accept for publication in Transactions	27	16.46%
Reject	62	37.80%
Return to author for mandatory revisions (rto address reviewer comments)	21	12.80%
Return to author for mandatory revisions (to address reviewer comments)	51	31.10%
Total:	164	100.00%

ECCE 2020 Contributions –Track A

- Track A - Renewable and Sustainable Energy Technologies (IAS RESC contributions)
- IAS-RESC provided 1 Vice Chair **Ke Ma** to work with another Vice Chair Kaushik Basu, and 16 Topic Chairs:

Subtrack	Topic	Papers submitted	Topic Chairs
A1	Wind	19	Paul Barendse Rohit Baranwal
A2	Solar	16	Yongheng Yang Alvaro Luna
A3	Power Converter Topologies for Renewables	42	Feng Gao Georgios Konstantinou Xiaofeng Yang Ayan Mallik Soumya Shubhra Nag
A4	Energy Storage	24	Hengzhao Yang Fei Gao Harish Krishnamoorthy
A5	Hybrid Renewable Sources	9	Ramkrishan Maheshwari
A99	Other topics in renewable and sustainable energy	18	Jae-Do Park Suryanarayana Doolla Santanu Kapat

ECCE 2020 Contributions – Track B

- Track B - Smart Grid & Utility Applications (IAS RESC contributions)
- 200 papers in 10 sub-tracks were managed by Vice Chairs Adel Nasiri (IAS-RSECS), Yaosuo Xue and 16 Topic Chairs.
- 112 accepted, 16 withdrawn, and 72 rejected, acceptance rate 56 %.

Sub-track	Title	Submitted Papers	Topic Chairs
B01	Renewable Energy Grid Integration	50	
B02	Distributed Resources and Microgrids	42	
B03	HVDC and FACTS	18	Afshin Izadian
B04	DC Distribution and DC Microgrids	19	Dinesh Kumar

ECCE 2020 Contributions – Track B

Sub Track	Title	No. of Submitted Papers	Topic Chairs
B05	AC Distribution and AC Microgrids	11	Saban Ozdemir
B06	Electronic transformer and other grid devices	21	Behrooz Mirafzal
B07	V2G and G2V	8	Necmi Altin
B08	Stability and power quality	17	Mohammad Shadmand
B09	Smart buildings and appliances	4	Necmi Altin
B99	Other topics	10	Mehdy Khayamy

ICRERA 2020 Contributions

- International Conference on Renewable Energy Research and Applications (ICRERA) was held virtually
- IAS, PELS, IES sponsored conference hosted from Paris, France.
- Approximately 87 papers in 18 sessions.
- 7 keynote speakers, 4 tutorials, 3 industrial talks
- Adel Nasiri served on the steering and organizing committees.
- Virtual conference.

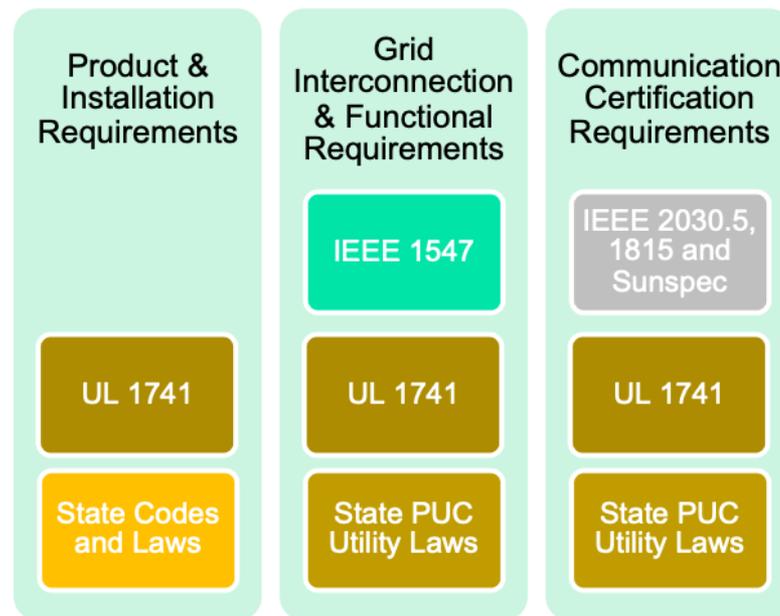


IEEE 1547 – IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces

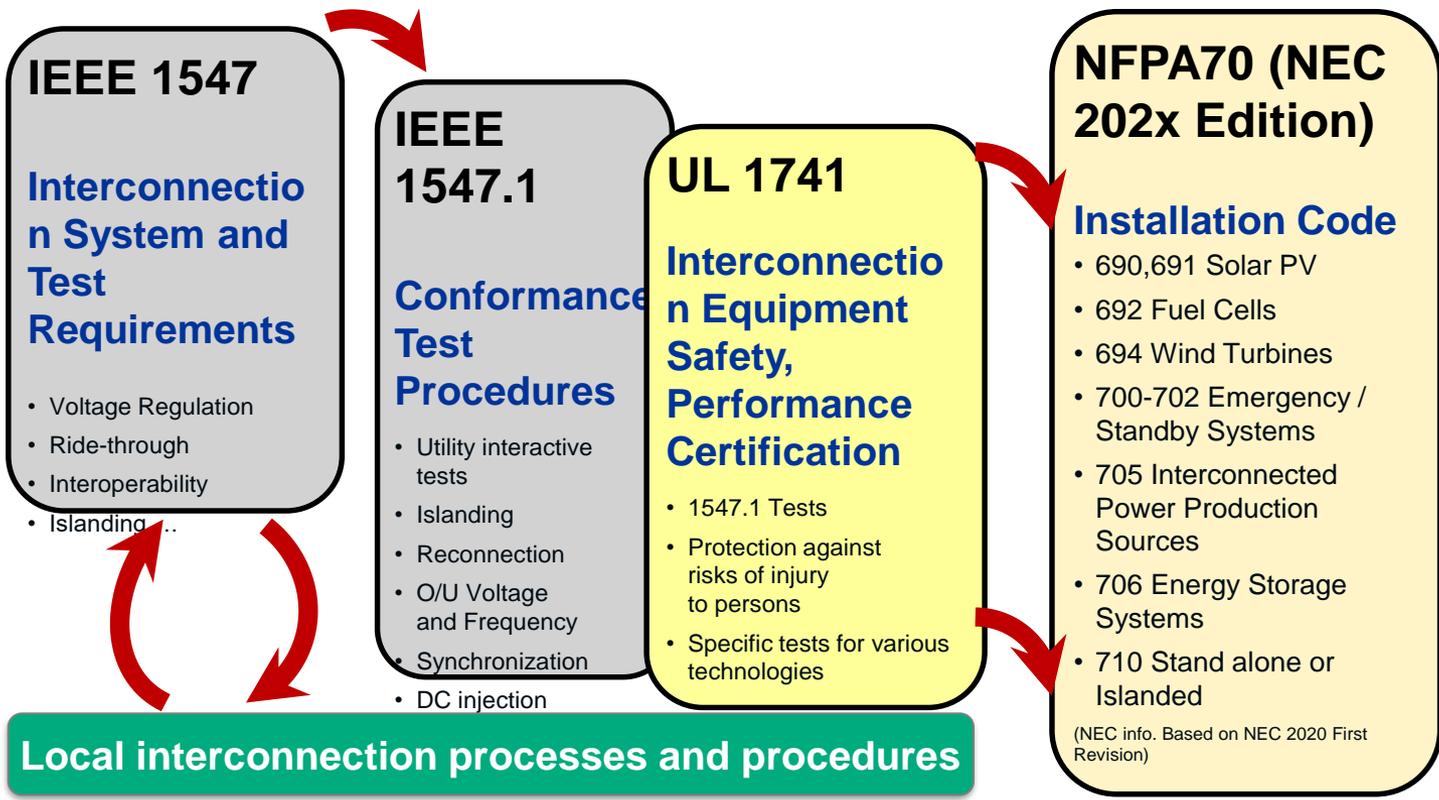
**STANDARDS COORDINATING COMMITTEES – (SCC) 21 OVERSEES THE
DEVELOPMENT OF STANDARDS IN THE AREAS OF
INTEROPERABILITY, FUEL CELLS, PHOTOVOLTAICS,
DISPERSED GENERATION, AND ENERGY STORAGE**

Distributed Energy Dramatic Changes

- Significant changes to standards, codes and regulations as a result of IEEE 1547 Interconnection Standard
- Revisions of the original standard due to:
 - High penetration of renewable sources in some markets
 - Differing performance of inverters and synchronous generators
 - Need for guidance on how to apply standards
 - No conformance assessment standards for Microgrids, energy storage or aggregation of multiple DER
- Interoperability requirements are critical and may provide for innovation

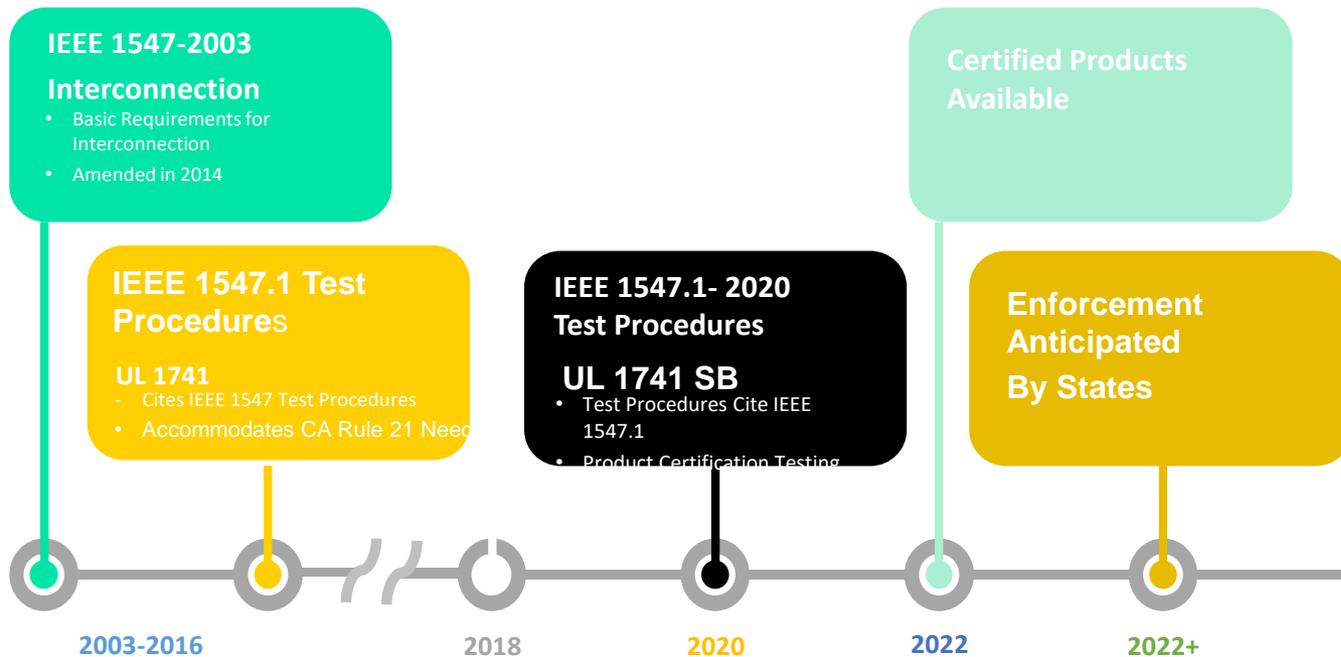


IEEE 1547 Interconnection Example Use in USA



Timeline for Rollout of IEEE Std 1547-2018 Compliant DER

Standards



Regulations

Areas of Potential Interest for Collaboration

- Communications and Smart Grid
 - New Standard P2030 Revision
 - Cyber Security
 - Cyber Physical Systems
- Grid Forming Inverters
- Vehicle Fast Charging Infrastructure
- Safety Low Voltage Systems

Standards Development Impacting EPS

- *Active IEEE Working Groups (Projects with Blue Font Holding Regular Meetings)*
- IEEE P1547a: Amendment to IEEE 1547-2018 (Extend Ranges in Category III)
- IEEE P1547.1: DER interconnection and interconnection test requirements
 - Ballot and recirculation approved – comment resolution
- IEEE P1547.2: Application Guide to 1547
- IEEE P1547.3: Standard Cybersecurity Requirements for Power System Automation, Protection and Control Systems
- IEEE P1547.9: Guide for Energy Storage System Interconnection
- IEEE P2030.4: Guide for Control and Automation Installations Applied to the Electric Power Infrastructure
- IEEE P2030.5: Standard for Smart Energy Profile 2.0 Application Protocol

Standards Development Impacting EPS

- IEEE P2800: Standard for Interconnection and Interoperability of Inverter-Based Resources Interconnecting with Associated Transmission Electric Power Systems
- IEEE P2800.1: Guide for Test and Verification Procedures for Inverter-Based Resources Interconnecting with Associated Transmission Electric Power Systems
- IEEE P2815: Guide for the Technical Specification for Smart Distribution Transformer Terminal (Entity)
- IEEE P2030.7: Standard for the Specification of Microgrid Controllers
- IEEE P2030.8: Standard for the Testing of Microgrid Controllers
- IEEE P2030.11: Guide for Distributed Energy Resource Management Systems (DERMS)
- IEEE P2030.12: Guide for protection of Microgrid Systems
- IEEE C26 C37.233: Guide for Protection System Testing
- IEEE P1661: Guide for Test and Evaluation of Lead-Acid Batteries Used in Photovoltaic (PV) Hybrid Power Systems

Note: Active Working Groups in Blue Text (Jointly Sponsored with IEEE PES ESB)

Other Activity Related to Microgrids and DERMS

- In February 2020, NARUC resolution recommends State commissions adopt IEEE 1547-2018 and align implementation of the Standard with the availability of certified equipment.
- Other Standards:
 - IEEE P2800 is adopting IEEE 1547 technical requirements to Transmission Connected DER.
 - IEEE P2030.11 Guide for Interoperability of DERMS will propose nomenclature for control and communication
 - IEEE P2030 will update the IEEE 2030 Smart Grid Interoperability Reference model to current practices and simplify application
 - Anticipate that Microgrid Systems may require comprehensive commissioning to ensure performance when connected to Grid



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- Key updates of technical committees (standards, websites, papers & conferences, other) - 30 min
 - * TSC (Bulent Sarlioglu, TSC Chair)

Transportation Systems Committee (TSC) Meeting

November 4, 2020
Virtual Online Meeting

Bulent Sarlioglu
University of Wisconsin-Madison
Chair

Committee Officers – 2020-2021

Chair Dr. Bulent Sarlioglu
University of Wisconsin-Madison

Vice Chair (Papers)

Dr. Mohammad Anwar
General Motors

Vice Chair (Conferences)

Dr. Mithat Kisacikoglu
The University of Alabama

Secretary

Dr. Rakib Islam
Dura Automotive Systems

Past Chair

Dr. Mohammad Islam
Halla Mechatronics

Introduction / Improvements on TSC Website

- ❑ Website: <https://site.ieee.org/ias-tcs/ias-transportation-systems-committee/>
- ❑ This year we plan to update our website. Work is underway.

The screenshot displays the IEEE IAS Transportation Systems Committee website. The header features the committee name and the IEEE logo. A navigation menu includes links for About, Officers, Meetings, Pictures, Operating Guide, and Publication Procedure. Below the menu is a search bar and social media icons for Facebook, Twitter, YouTube, and LinkedIn. The main content area shows the 'About' page, which includes a breadcrumb trail (Home > About), a title 'About', and a paragraph describing the committee's role as a sub-committee of the Industrial Power Conversion Systems Department (IPCSD) within the Industry Applications Society (IAS) of IEEE. It also mentions the committee's focus on electrification and various transport modes. A link to 'Edit this entry' is provided at the bottom of the content area.

Committee Updates

- IEEE IAS TSC has a new active website at - <http://sites.ieee.org/ias-tcs/>
- We seek volunteer to be the webmaster of the TSC website
- Total members as of 2020 is > 225.
 - Some members e-mails need to be updated as a result of the changes in their affiliation
 - Please send your updated information's to rakibulislam2000@gmail.com
 - Include First & Last Name, Affiliation and e-mail address when sending updated details
- If you want to be a member, please send your contact information to Dr. Rakib Islam at rakibulislam2000@gmail.com

Where are our Members from?

```
*
*
* Country                Subscribers
* -----
* Australia              3
* Austria                1
* Canada                 13
* China                  5
* France                 9
* Hong Kong              2
* Italy                   5
* Japan                  4
* Malaysia               1
* Netherlands            2
* Republic of Korea      8
* Singapore              1
* Spain                  1
* United arab emirates   1
* United kingdom         5
* United states          165
*
* Total number of users subscribed to the list: 226
* Total number of countries represented: 16
* Total number of local host users on the list: 0
*
```

Most members from USA

- Need to encourage members from other Regions / Countries

Transaction Paper Review

- TSC started reviewing papers for IA transactions/magazines since 2012
- **TCPRC**: Dr. Mohammad Anwar– Vice Chair (Papers)
- **Associate Editors**
 1. Dr. Bilal Akin, University of Texas, Dallas, TX
 2. Dr. Mithat Kisacikoglu, Univ. of Alabama, Tusc., AL
 3. Dr. Veda Galigekere, Oak Ridge National Lab, TN
 4. Dr. Rakib Islam, Dura Automotive, MI
 5. Dr. Yingjie Li, Hyperloop One, CA
 6. Dr. Jason Pries, Booz Allen Hamilton, VA
 7. Dr. Subrata Saha AISIN AW Co. LTD.
 8. Dr. Jiangbiao He, University of Kentucky, US
- Decision is based on at least 2 reviews
- Reviewers/members database is evolving
- Term is two years, but it can be extended

We appreciate our Associate Editors for their kind voluntary work

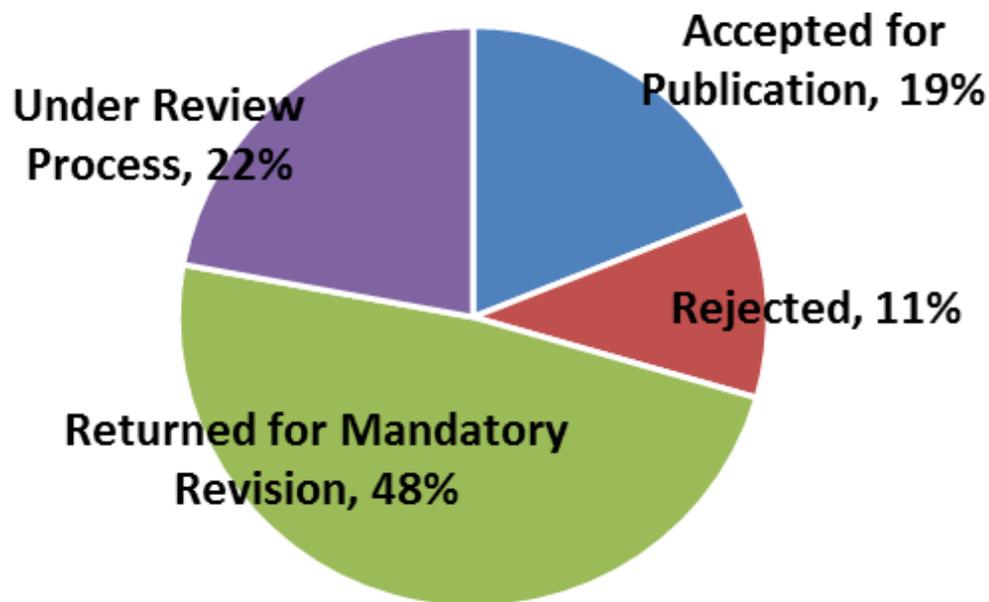
TSC Transaction Paper Review

Manuscript Status	01/01/2020	01/01/2019
	10/10/2020	01/01/2020
Manuscripts Submitted	95	48
Accepted for Publication	18	13
Rejected	10	2
Returned for Mandatory Revision	46	25
Under Review Process	21	8

Note: Number of manuscripts submitted got doubled

Transaction Paper Review

Manuscript Status: Jan'2020 to Oct'2020



Note: AEs and Reviewers are maintaining a quick turnaround

TSC Prize Paper Award - 2020

Award Committee

Chair – Dr. Mohammad Anwar

Committee Members:

1. Dr. Manuel Arias Perez de Azpeitia, Universidad de Oviedo
2. Dr. Wencong Su, University of Michigan
3. Dr. Mahshid Amirabadi, Northeastern University
4. Dr. Mahesh Krishnamurthy, IIT, Chicago

The award committee evaluated 7 top ranked digests from ECCE 2019 Track D - Transportation System Applications.

ECCE 2020 – Transportation Electrification Applications

Session topics:

- Inductive power transfer
- Other charging techniques
- Batteries and battery management
- Infrastructures, fuel cell systems
- Electric drivetrains
- Applications of electric traction/propulsion
- Other topics in transportation electrification applications

ECCE 2020 – Transportation Electrification Applications

Mithat Kisacikoglu served as a vice-chair for this track.

Topic Chairs selected from our members based on their volunteer interest:

- **Di Pan**, GE Global Research
- **Gilsu Choi**, Inha University, Korea
- **Jason Pries**, Booz Allen Hamilton, Knoxville, TN

	Oral	Poster	Withdrawn	Rejected	Total	Acceptance Rate
ECCE 2018	25	48	26		99	73.7%
ECCE 2019	25	32	7	23	87	65.5%
ECCE 2020	34	33	10	37	114	58.8%

Committee Officers – 2020-2021

Chair

Dr. Bulent Sarlioglu
University of Wisconsin-Madison

Vice Chair (Papers)

Dr. Mohammad Anwar
General Motors

Vice Chair (Conferences)

Dr. Mithat Kisacikoglu
The University of Alabama

Secretary

Dr. Rakib Islam
Dura Automotive

Past Chair

Dr. Mohammad Islam
Halla Mechatronics

1. If you have any changes in your contact information and/or affiliations

2. If you want to become a session chair or topic chair for ECCE 2021 please text on the chat box, or if you are a new member please email your name and contact info to:

rakibulislam2000@gmail.com

**It is an exciting time for
transportation electrification**

Please join TSC

rakibulislam2000@gmail.com



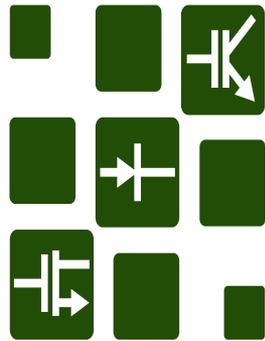
IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

□ Key updates of technical committees (standards, websites, papers & conferences, other) - 30 min

* PEDCC (Tanya Gachovska , PEDCC Chair)



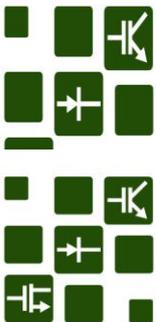
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PEDCC Committee Report

2019- 2020





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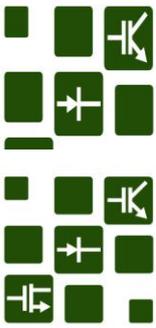
Dr. Tanya Gachovska
PEDCC Chair
Standard Chair



Dr. Francesco Iannuzzo
PEDCC Vice-Chair



Dr. Cong Li
PEDCC Secretary



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PEDCC Officers for the 2020-2021 term (2/2)



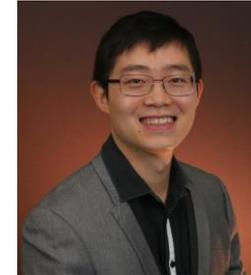
Dr. Jean-Luc Schanen
Past Paper Awards Chair



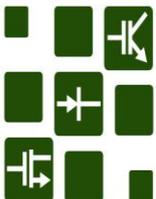
Dr. Ruxi Wang
Paper Awards Chair



Dr. Enrico Santi
PEDCC Transaction
Chair



Standard Vice Chair
Dr. Zheyu Zhang



ECCE2020 Technical Papers

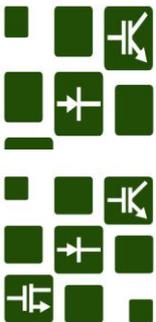
84 accepted, out of 130 digests submitted

– 65% acceptance

– VC's follow recommendations made by topic chairs

Comparison with prior years

	ECCE11	ECCE12	ECCE13	ECCE14	ECCE15	ECCE16	ECCE17	ECCE18	ECCE 2019	ECCE20
Submitted	103	84	100	95	88	145	124	140	152	130
Accepted	65	51	60	62	57	76	81	106	107	84
% Accept	63	61	60	65	65	52	65	76	70.4	65



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ECCE2020 Technical Papers

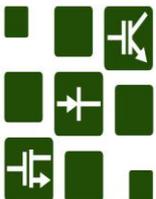
Vice Chairs

Tanya Gachovska
Francesco Iannuzzo

Topic Chairs

Cong Li	GE Research
Yang Hengzhao	New Mexico Tech
Dong Jiang	Huazhong Univ. of Sci. and Tech.
Feng Qi	Transphorm
Zheyu Zhang	Clemson University
Christina DiMarino	Virginia Tech
He Li	NIO Automotive
Ramanujam Ramabhadran	GE Global Research
Maja Harfman Todorovic	GE Global Research
Xiu Yao	University at Buffalo
Raghav Khanna	University of Toledo
Mona Ghassemi	Virginia Tech

Maeve Duffy	NUI Galway
Andrew Lemmon	The University of Alabama
Radha Sree Krishna Moorthy	Oak Ridge National Laboratory
Xuning Zhang	Littelfuse Inc
Paula Diaz Reigosa	FHNW Switzerland
Fang Luo	Stony Brook University
Cong Ma	Borgwarner
Han Xiong	GE Global Research
Zhiqiang Wang	Huazhong Univ. of Sci. and Tech.
Muhammad Nawaz	ABB Corporate Research Sweden
Kristen Booth	University of South Carolina



IAS Transactions Chair Report

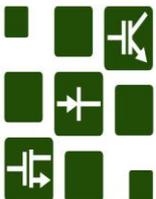
Submitted Papers

Dates	Original Submissions	Revised Submissions	Total Submissions
Sept 2019/Sept 2020	36	22	58
Sept 2018/Sept 2019	28	15	43
Sept 2017/Sept 2018	31	29	60
Sept 2016/Sept2017	39	25	64
Sept 2015/Sept2016	29	17	46
Sept 2014/Sept2015	37	22	59
Sept 2013/Sept2014	27	19	46
Sept 2012/Sept2013	16	8	24



Manuscripts Accepted by Country/Region for IEEE IAS Publications

Country/Region	Accept	Reject	Total	Accept Ratio, %
Germany	5	3	8	62.5
India	1	2	3	33.3
Italy	1	0	1	100
Kazakhstan	1	0	1	100
United States	7	6	13	53.9
Total	15	11	26	57.7



Associate Editor

Allard, Bruno

Gachovska, Tanya

Iannuzzo, Francesco

Krishnamurthy, Shashank

Li, Cong

Lukaszewski, Richard

Nawaz, Muhammad

Rodrigues, Rostan

Schanen, Jean-Luc

Wang, Rudy

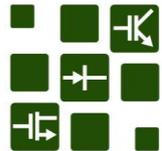
Wang, Shuo

Wei, Lixiang



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PEDCC Awards

IAS PEDCC awards sub-committee nominated candidates for IAS Awards:

1) IAS Outstanding Educator/Mentor Award

Dr. Rik W. De Doncker

2) Gerald Kliman Innovator Award

Dr. Muhammad Nawaz

3) IAS Distinguished Service Award

Dr. Adam W. Skorek

4) IAS Andrew W. Smith Outstanding Young Member Achievement Award

Dr. Zheyu Zhang

5) IEEE Fellow

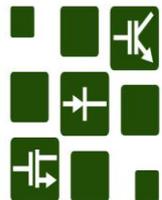
Dr. Jean-Luc Schanen



Will Portnoy Award (best PEDCC papers award)

Procedure

- Selection of the best 16 papers based on digest evaluation score
- Evaluation during the conference (Technical quality and Oral/Poster presentation) by a jury composed of PEDCC Members (chairman, volunteers)
- Final ranking after the conference.



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Will Portnoy Award



Peizhong Yi



Zhe Zhang

3rd Prize Paper Award

Yujia Cui, Peizhong Yi, Zhe Zhang, Lixiang Wei

Rockwell Company

*Investigation of Current Mirror Based Overcurrent Protection for
1200V 800A High Power SiC MOSFET Modules*



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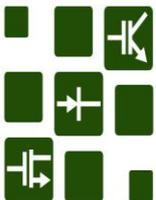
Will Portnoy Award

2nd Prize Paper Award

Maryam Mesgarpour Tousi, Mona Ghassemi

Virginia Tech

Nonlinear Resistive Electric Field Grading in High-Voltage, High-Power Wide Bandgap Power Module Packaging



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Will Portnoy Award



Shuo Wang

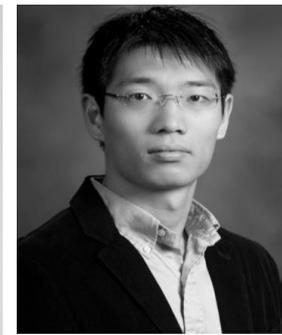


Hongfei Wu

1st Prize Paper Award



Fred Lee

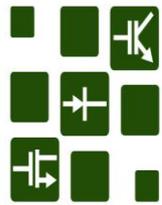


Qiang Li

Shuo Wang, Hongfei Wu, Fred Lee, Qiang Li

Virginia Tech & Nanjing University of Aeronautics and
Astronautics

Integrated Matrix Transformer with Optimized PCB Winding for
High-Efficiency High-Power-Density LLC Resonant Converter



P2964 IEEE Standard for Datasheet Parameters and Tests for Integrated Gate Drivers

Scope: The standard provides datasheet parameters and tests for integrated gate drivers, which include non-isolated gate drive, level-shifted gate drive, and isolated gate drive. The standard scope includes terminology, mnemonic, and pins' description; parameters and definitions; and test methods and conditions to obtain the parameters.

Purpose: Currently, different gate drive manufacturers provide datasheets with their own templates. As a result, it is difficult to compare the gate drivers using datasheet parameters since gate drivers' parameters have different names, test methods, and conditions.

Stakeholders: Gate driver manufacturers, gate driver users (e.g. power electronics converter manufacturers), academia and research institutes, and everyone who is using gate drivers in their applications.



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P2964 IEEE Standard for Datasheet Parameters and Tests for Integrated Gate Drivers (Cont'd)

Status:

- The standard development was kicked off on January 22, 2020 with six members
- The PAR has been approved by IEEE SA Standards Board on September 24, 2020
- Currently we have 12 members from seven companies and three universities

Chair: Tanya Kirilova Gachovska, Solantro Semiconductors, Canada



Vice-Chair: Zheyu Zhang, Clemson University, USA

Secretary: Inki Park, ON Semiconductor, USA

Members:

Wolfgang Frank, Srivatsa Raghunath, Ziqing Zheng, Infineon Technologies

Mitch Van Ochten, ROHM Semiconductor, USA

Cong Li, General Electric, USA

Xiaoqing Song, ABB, USA

Yujia Cui, Rockwell Automation, USA

Jean-Luc Schanen, Grenoble Institute of Technology, France

Liang Lin, Huazhong University of Sci& Tech, China





IEEE Standard for Datasheet Parameters and Tests for UVC LED Air Disinfection Chambers

Scope: The standard provides datasheet parameters and tests for UVC LED air disinfection chambers to ensure a minimum level of germicidal efficacy while ensuring the resulting solutions are commercially viable, offer an industry-wide testing protocol to standardize the evaluation of such products, and consider the differences in UVC LED technologies and products, in particular the performances and tolerances specified by the manufacturers.

Purpose: The current COVID-19 crisis has highlighted the lack of readiness to managing pandemics globally and the need for disinfection of air and surfaces responsible for the transmission of pathogens. UVC light is a proven technology. The lack of standards around UVC LEDs, in particular, their use in air disinfection, brings tremendous risk of products emerging with LEDs that do not provide sufficient air treatment.

Stakeholders: UVC LED and air disinfection chambers manufacturers, users (e.g. company producing HVAC systems, lighting fixtures, or using UVC LED systems), academia and research institutes, and everyone who is using UVC LED in their applications.



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IEEE Standard for Datasheet Parameters and Tests for UVC LED Air Disinfection Chambers (Cont'd)

Status:

- The standard development was kicked off on September 2, 2020 with seven members
- Now, we have 10 members with a diverse backgrounds of electrical engineering, physics, biology, and treatments

Chair: Tanya Kirilova Gachovska, Solantro Semiconductors, Canada

Vice-Chair: Kevin Kahn, Crystal IS, Germany

Secretary: Zheyu Zhang, Clemson University, USA

Members:

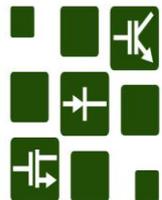
Richard Mariita, Crystal IS, USA

Lincoln Xue, Oak Ridge National Laboratory, USA

Malek Amiali, Houari Boumediene University of Science and Technology, Algeria

Ali Zineddine Boumehira, Sciences of Algiers 1 University, Algeria

Fang Luo, Ramez Kaupak, Miguel Rivas, Stony Brook University, USA



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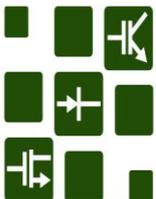
IAS Webinars

GaN Power Devices, Gate Driving and Applications



Dr. Fred Yue Fu

Co-founder and COO of GaNPower International Inc., a Vancouver
13 August, 2020 at 10:00 AM EST



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Power electronics devices and components committee (PEDCC) announces William Portnoy prize paper awards. Published in: [IEEE Industry Applications ...](#)

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[Picture - IEEE Power Electronic Devices and Components ...](#)

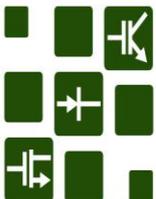
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[Committee Officers - IEEE Power Electronic Devices and ...](#)

Chair, Tanya Gachovska, tgachovska@yahoo.com. Vice Chair, Francesco Iannuzzo, fia@et.aau.dk. Secretary, Cong Li, cong.li@ieee.org. Transaction Chair ...



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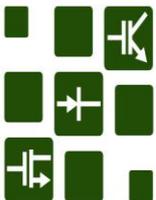
 

Committee Officers | Overview | Annual Meetings | Picture | Standards | Publications | Join

Home / Committee Officers

Committee Officers

Chair	Tanya Gachovska	tgachovska@yahoo.com
Vice Chair	Francesco Iannuzzo	fia@et.aau.dk
Secretary	Cong Li	cong.li@ieee.org
Transaction Chair	Enrico Santi	santi@cec.sc.edu
Award Chair	Ruxi Wang, Tanya Gachovska	ruxi.wang@gmail.com, tgachovska@yahoo.com
Past Chair	Ruxi Wang	ruxi.wang@gmail.com



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Facebook navigation bar with search, home, video, marketplace, groups, and notifications (9+), and user profile Tanya.

Manage Group

IEEE-IAS Power Electronics Devices and Components Committee
Public group

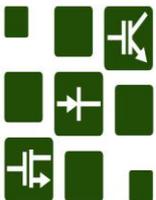
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[Switch Now](#)

Group by IEEE Industry Applications Society

IEEE-IAS Power Electronics Devices and Components Committee

Public group · 736 members

About Discussion Rooms Members Events Media



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LinkedIn navigation bar: Home, My Network (1), Jobs, Messaging, Notifications (16), Me, Work, Try Premium Free for 1 Month

Search: Search for posts in this group

Ad: [Get a quote - Engineers get preferred rates with TD Insurance.](#) Ad ...

Tanya Gachovska Manager
Joined group: Sep 2013

Pending posts 0
Requests to join 0

Manage group

Recent

IEEE-IAS Power Electronics Devices and Components Committee

Unlisted group

42 members (circled in red)

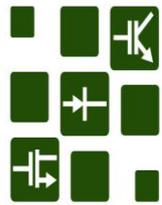
Including John Palmour and 17 other connections

+14

[Invite connections](#)

[See all](#)

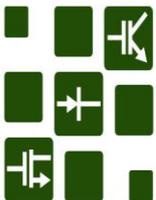
About this group



APEC TP Chairs 2021

APEC 2021
June 9-13, 2021 | Phoenix, AZ

Devices and Components	Minjie Chen
Devices and Components	Ali Salih
Devices and Components	Hengzhao Yang
Power Electronics Integration and Manufacturing	Liming Liu
Power Electronics Integration and Manufacturing	Jim Marinos
Power Electronics Integration and Manufacturing	Ayman Fayed



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Speaking: Adam Skorek

Show shared content view

Tanya Ga... (Me)	IAS Ann... (Host)	Rudy Wang	Adam Skorek	Enrico Santi
Francesco Iann...	Han Xiong	john	Jose Ortiz Gon...	Phaneendra Babu Bob...
Muhammad N...	Shuo Wang	Zheyu Zhang	Diego G. Lamar	Feng Qi
Hengzhao Yang	Mattia Rossi	Montie Vitorino	Pericle Zanchetta	Ren Xie
		SHUO WANG		

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Participants Chat ...



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Viewing IAS Annual Me... ▾



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IEEE ENERGY CONVERSION CONGRESS & EXPO DETROIT, MICHIGAN | OCTOBER 11-15

- Meeting, Again. Safely!
- Save the Date!



IEEE ENERGY CONVERSION CONGRESS & EXPO Vancouver, Canada | Oct. 10-14



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



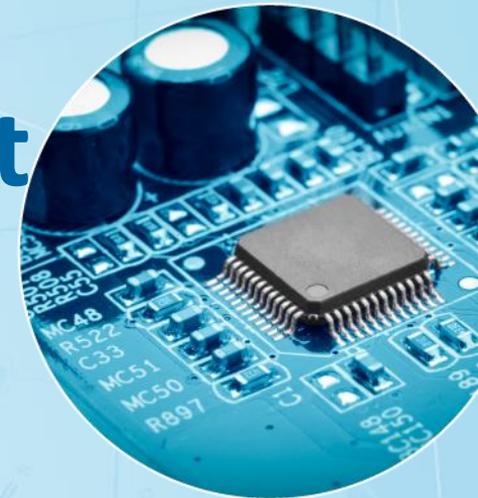
Agenda

- IAS Meetings Dept. -10 min (Tamas Ruzsanyi, IAS Meetings Dept. Chair)

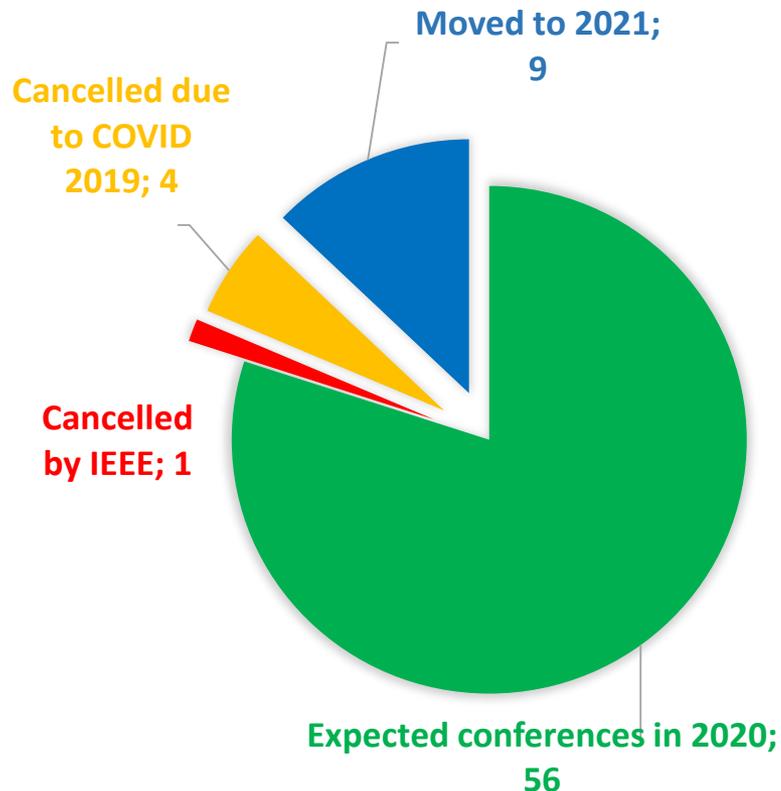


Meetings Department report

IPCSD meeting 11.04.2020



Effect of COVID-19 on IAS conference numbers in 2020



Conferences in 2019 67

Applications in 2020: 70

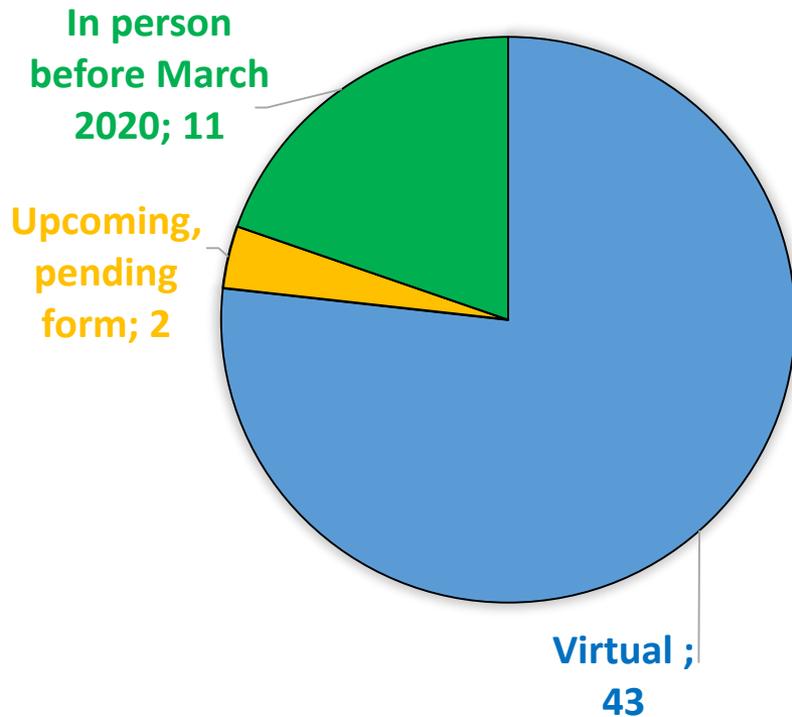
Cancelled by IEEE: - 1

Cancelled due to COVID 2019: - 4

Cancelled and moved to 2021: - 9

Exp. conferences in 2020: 56

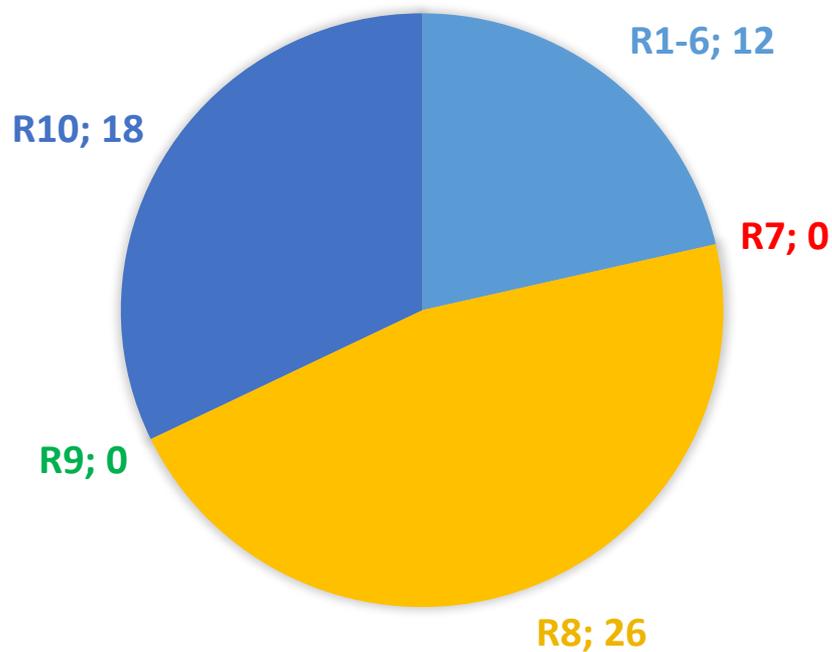
Effect of COVID-19 on IAS conference forms



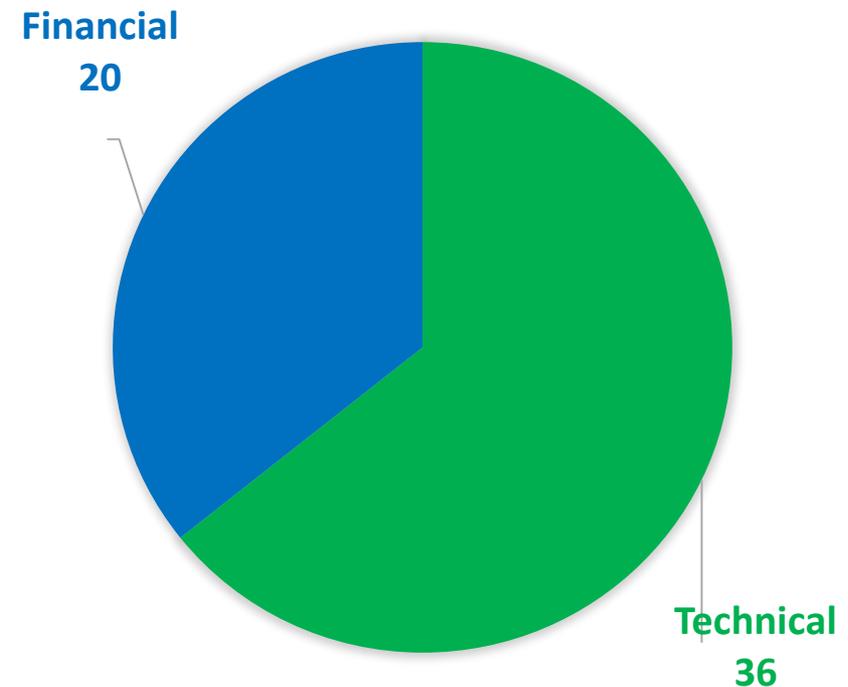
Total conferences in 2020:	56
In-person before March 2020:	11
Changes to virtual after March:	43
Date changes in 2020:	5
Upcoming conferences with pending form:	2

IAS sponsored conferences in 2020 by Regions and Types (Total: 56)

BY REGIONS:

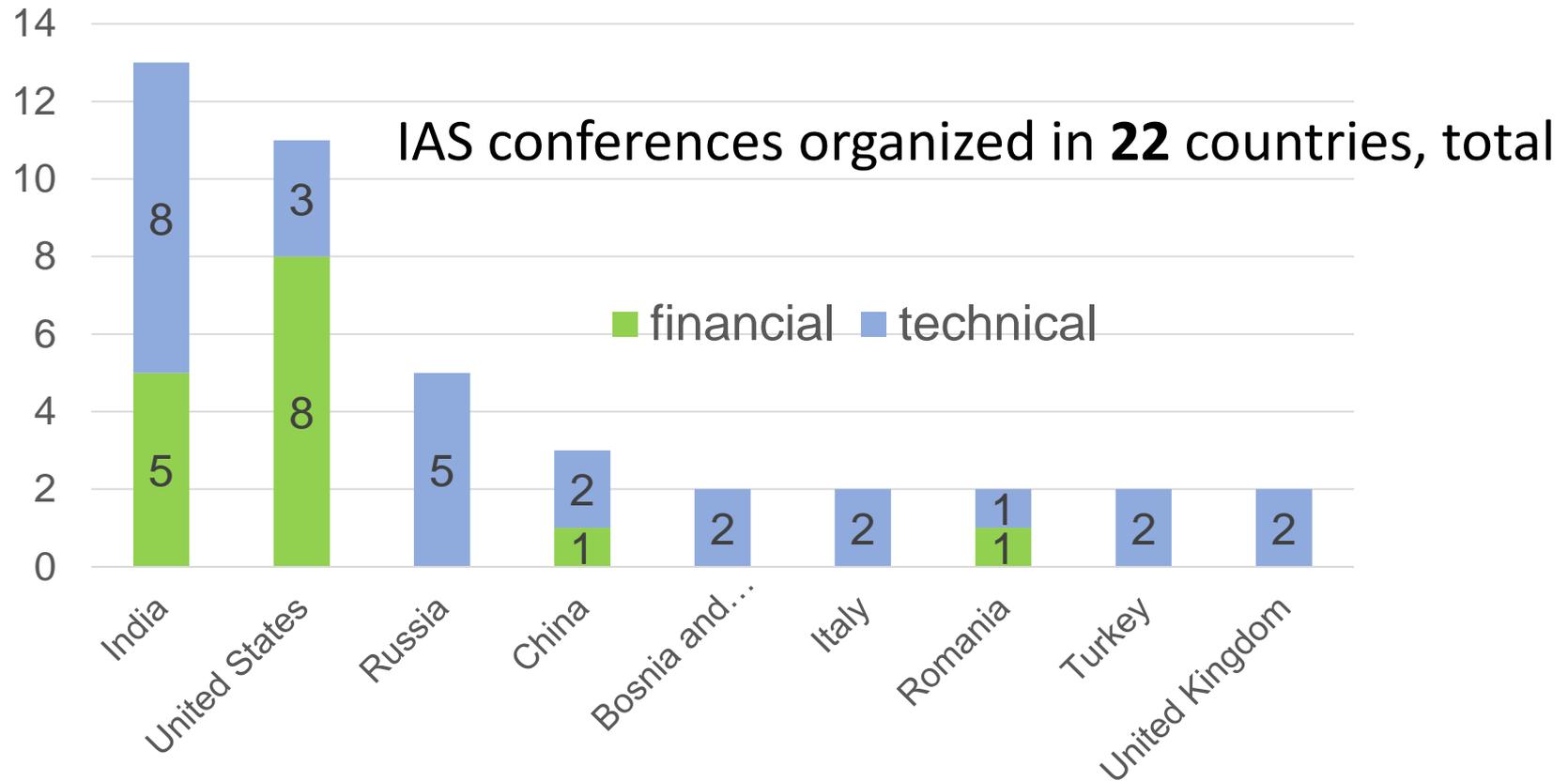


BY TYPES

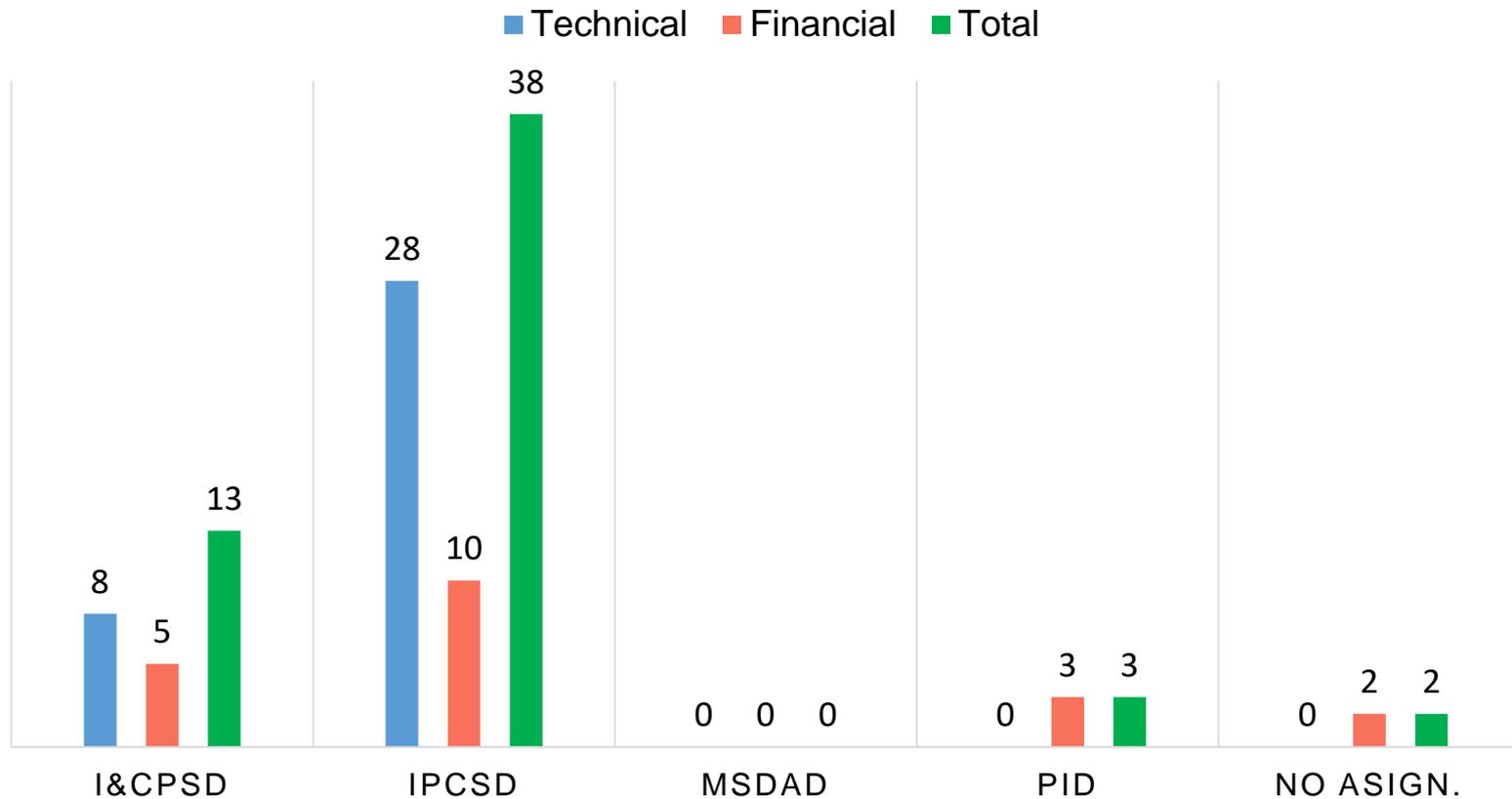


IAS sponsored conferences by countries in 2020

(more than 1 conference/country)

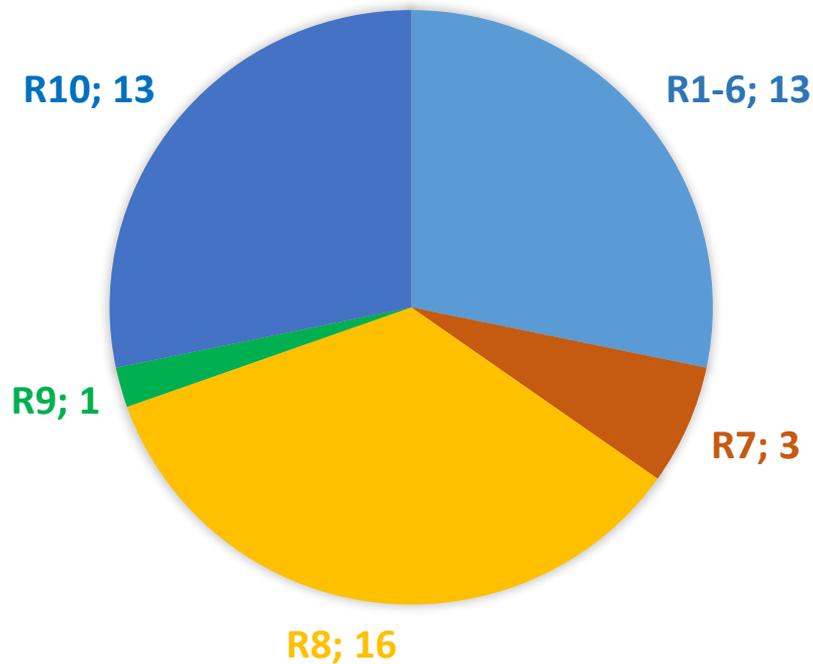


IAS co-sponsored conferences in 2020 by technical departments

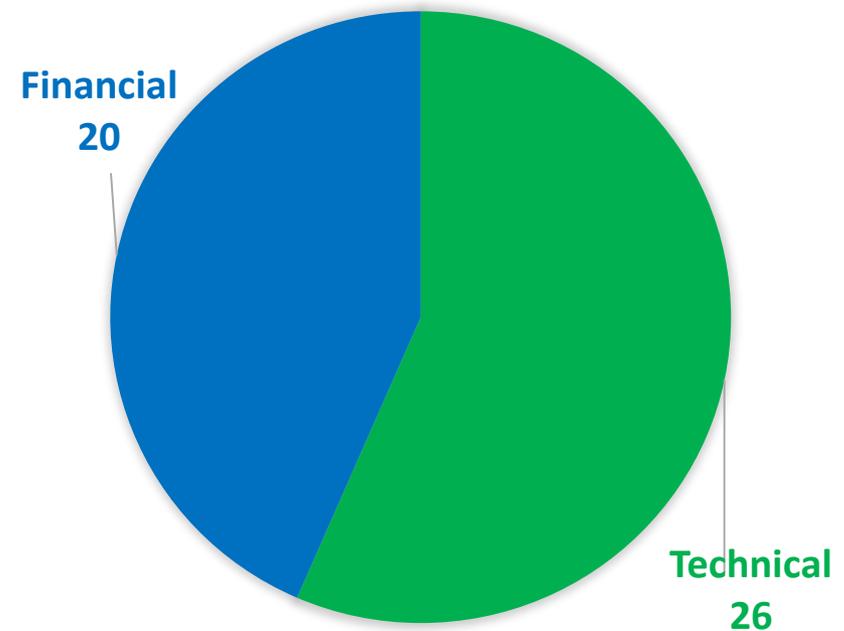


Outlook for 2021 (Total registrations: 46)

BY REGIONS

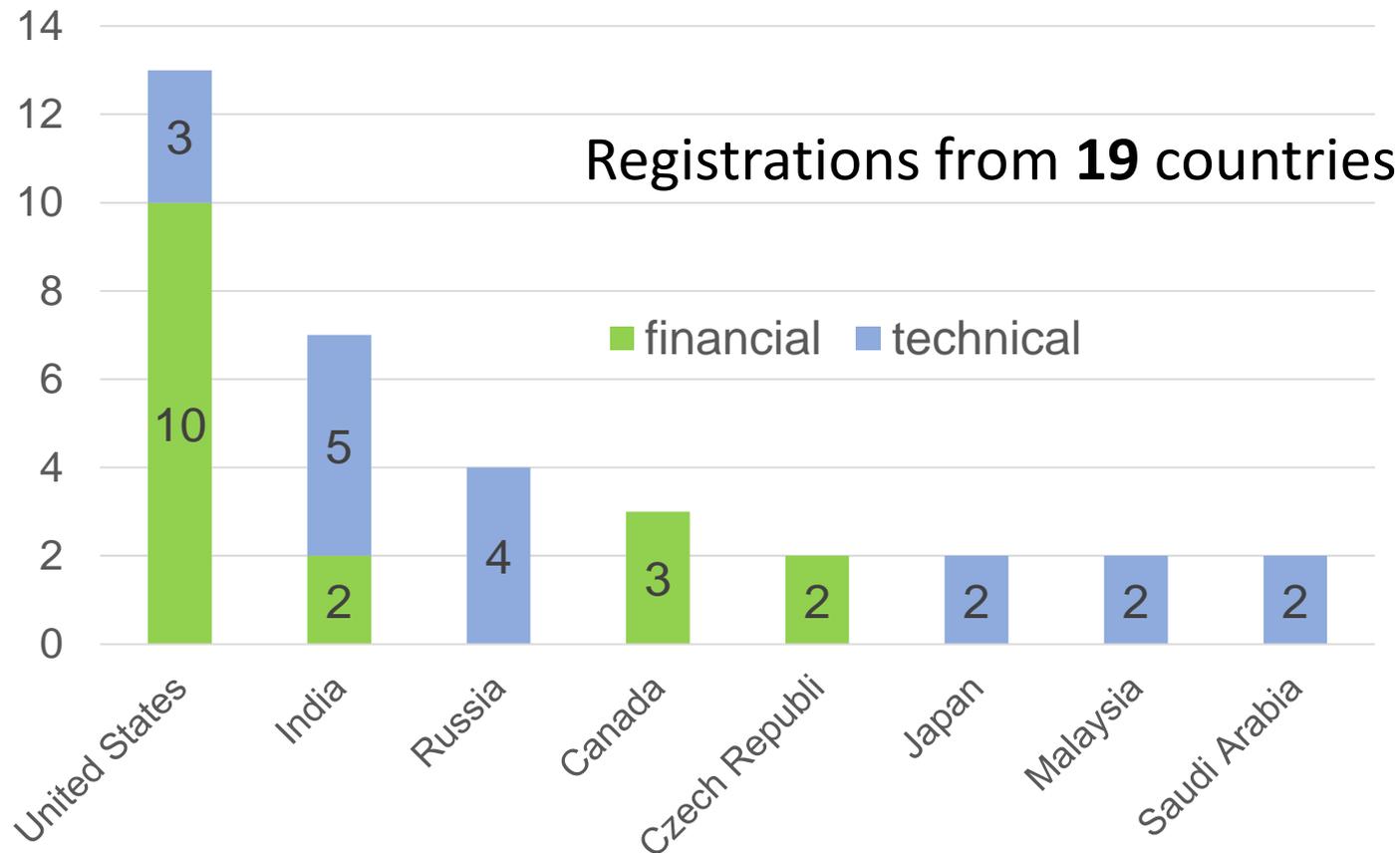


BY TYPE

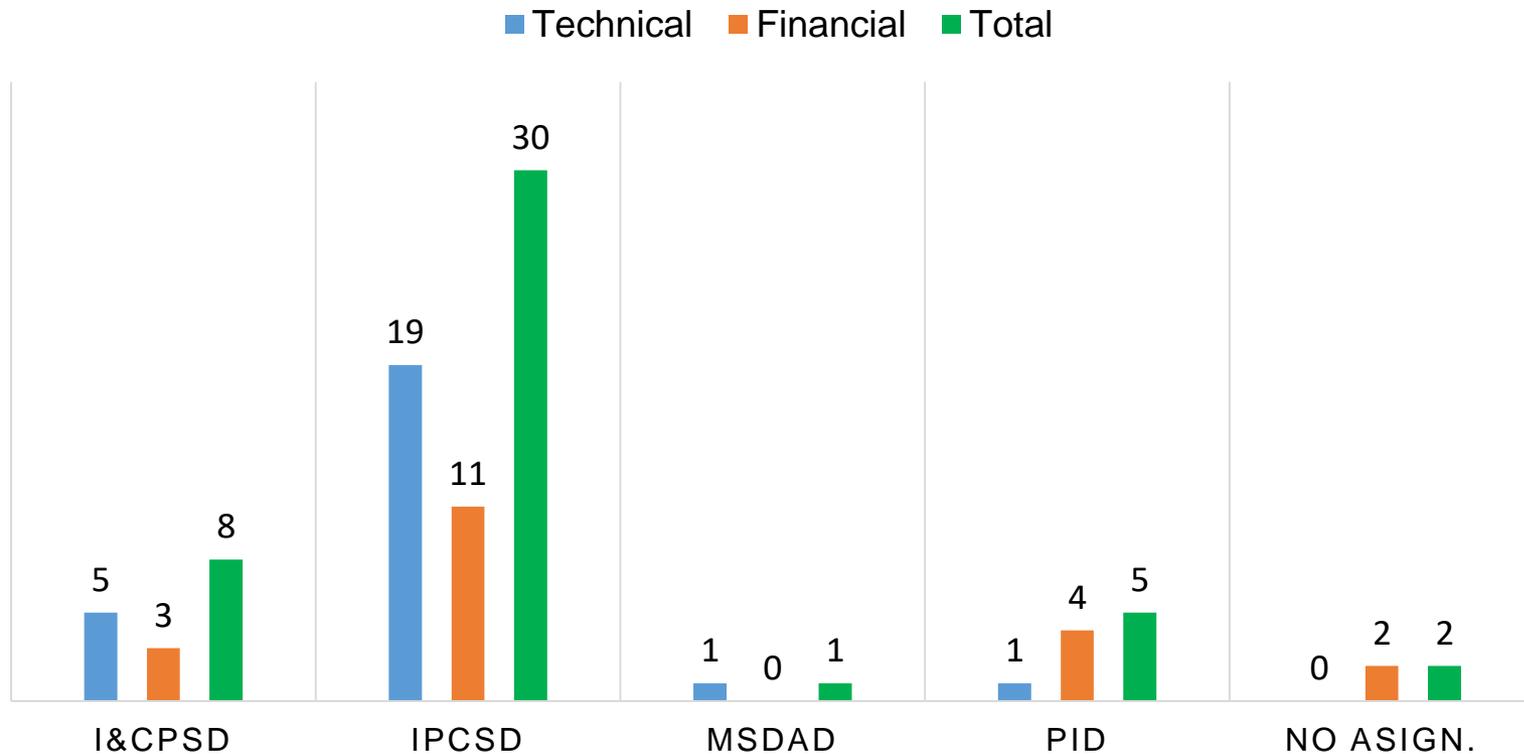


Outlook for 2021 by countries

(more than 1 conference/country)



Outlook for 2021 by technical departments (Total registrations: 46)



IAS sponsored conferences are on the IAS web:

About IAS / IAS Executive Board Resources

<https://ias.ieee.org/about-ias/ias-executive-board-resources.html>

If you need access, please contact me

Thanks for your attention



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- ECCE 2020 Update -10 min (Ryan Li, ECCE 2020 Chair)

IEEE Energy Conversion Congress and Exposition - ECCE 2020

Oct 11 (Sunday)-Oct 15 (Thursday), 2020

Virtual

Status Update

By Yunwei (Ryan) Li
Oct 2020

ECCE2020 virtual is a Great Success

- Virtual platform – launch on Friday Oct 9:
 - Over 1000 videos on demand through Nov 16, 2020.
 - 959 accepted papers into 62 oral sessions and 36 digital poster sessions
 - Only one paper without video and considered no show.
 - ECCE proceedings submitted to IEEE on Oct 21, posted on Oct 30 – record time.
 - 14 tutorial sessions (from 55 proposals)
 - 20 special sessions (simulive/live)
 - All paper and tutorial sessions have ZOOM based live “meet the authors” and “meet the instructors” sessions during the week (Oct 11-15).
 - 4 plenary speakers (live on Oct 12) - free
 - WIE events/sessions, student events, award sessions – free

- Budget:
 - 982 paid registrations so far. Over 1468 total registrations including those for free sessions and exhibitions (As of Nov 2).
 - Registration system will open till Nov 16.
 - 6 sponsors
 - Revenue as of today: registration \$457,890, sponsorship: \$20,000
 - Expected surplus – over 30%

ECCE2020 Virtual Platform

MY AGENDA

ADD SELECTED SESSIONS TO CALENDAR

MODIFY SCHEDULE

October 11, 2020

October 12, 2020

October 13, 2020

Opening & Plenary Session	8:30 AM - 10:45 AM	Q
S1: Machines for Transportation	11:00 AM - 11:30 AM	Q
S7: Isolated DC-DC Converters	11:35 AM - 12:05 PM	Q
S5: High Speed and Bearingless Machines	11:35 AM - 12:05 PM	Q
S6: Power Converters for Solar Energy	11:35 AM - 12:05 PM	Q
S10: Optimization and Sizing of Energy Storage Systems	12:10 PM - 12:40 PM	Q
S5-6: Testing in the EV World - Simulators, Emulator, Dyno Based and Vehicle Level Testing - Technologies, Trends, and Thoughts	1:30 PM - 3:10 PM	Q

VISIT THE EVENT HUB TO ATTEND SESSIONS

VISIT THE EXHIBIT HALL

- Landing page: iPlanIt/Swoogo.
- Session videos: ON24
- Live Q&A: ZOOM
- Automatic registration list integration

Use the buttons below to attend the sessions you registered for.

SUNDAY, OCTOBER 11

MONDAY, OCTOBER 12

TUESDAY, OCTOBER 13

WEDNESDAY, OCTOBER 14

THURSDAY, OCTOBER 15

Sessions (On-Demand with Live Q&A Sessions) ▾

Category	Name	Live Q&A Link	Virtual Session Link	More Info
11:00 AM - 11:30 AM	S1: Machines for Transportation	Q	VIEW SESSION	Q

EXHIBIT HALL

Be sure to check out the game at the bottom of this page!

SILVER



MATHWORKS PRODUCTS & SERVICES SESSION

ROHM PRODUCTS & SERVICES SESSION

EXHIBITING SPONSOR



WILEY



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ECCE2020 Plenary



Prof. Anna Stefanopoulou

The price of degradation -- The value of prognostics – Opportunities and Needs in Battery Health Estimation

Energy Institute Director, William Clay Ford Professor of Technology, Professor of Mechanical Engineering, University of Michigan, Ann Arbor



Dr. John A. Cavolowsky

NASA Aeronautics Strategies for Hybrid/Electric Propulsion and Transforming Aviation

Director, Transformative Aeronautics Concepts Program, NASA Aeronautics Research Mission Directorate (ARMD)



Rob Del Core

Current and Future Outlook of Hydrogen Fuel Cell on Multiple Market Sectors

Assistant Vice President, Fuel Cell Power System and Hydrogen Infrastructure, Technology and Strategy Group, Ricardo North America



John 'Sam' Holeman

System Operations - Defenders of the Grid - Past, Present, Future

Vice President, System Planning and Operation, Duke Energy

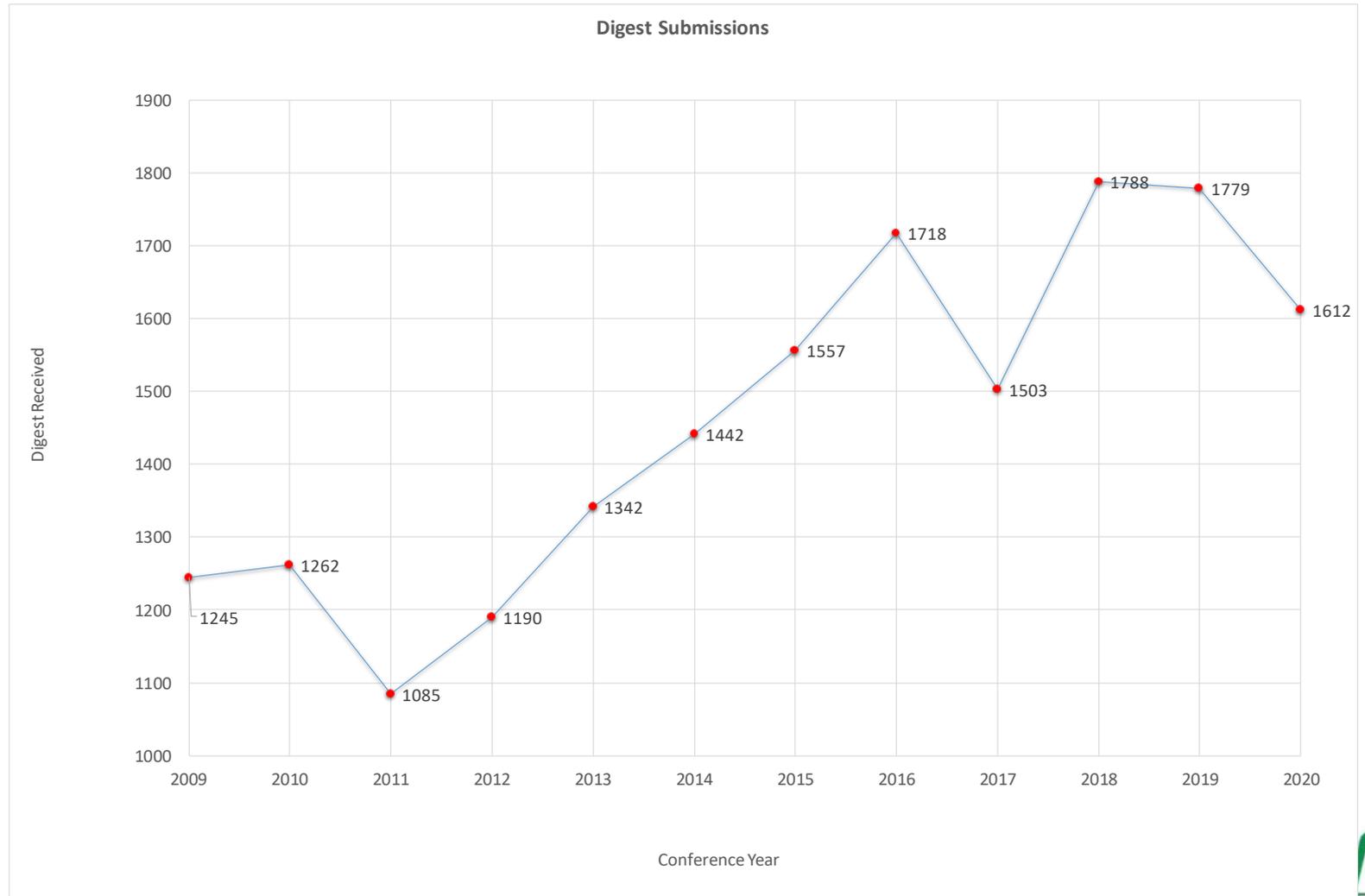
ECCE2020 Tutorials

- T1. Modelling and Control of Automotive Grade Interior Permanent Magnet Synchronous Motor. *Seung-Ki Sul and Young-Cheol Kwon*
- T2. Challenges and Solutions of Smart Solid State Transformer. *Marco Liserre, Alex Q. Huang, Rongwu Zhu, and Levy Costa*
- T3. GaN-Based Power Converter Ecosystem Design: Magnetics, Gate Driver IC, and Applications. *Yaow-Ming Chen, Yu-Chen Liu, Ching-Jan Chen, and Katherine Kim*
- T4. Physics-based Modeling and Control of PWM Converters. *Christoph Henrik van der Broeck, Marc Stephane Petit, and Rik W. De Doncker*
- T5. Grid-forming Inverters, Virtual Synchronous Machines, and Power Electronics-enabled Autonomous Power Systems. *Qing-Chang Zhong*
- T6. Preparing for the Opportunities and Challenges of WBG-Based Motor Drives. *T.M. Jahns, B. Sarlioglu, and J.W. Kolar*
- T7. Design Considerations for Large Format Lithium-ion Battery Systems. *Ashish Arora and Sneha Lele*
- T8. Application of Topology Optimization Techniques in Innovative Motor Design. *Sainan Xue and Vedanadam Acharya*
- T9. High-efficient, High-reliable Energy Storage Power Conversion Systems (PCS) for Increased Renewable Energy and Electric Vehicle Integration. *Johan Enslin and Zheyu Zhang*
- T10. Electrical Insulation Stresses in PWM-driven Electric Machines. *Julia Zhang, Yanyan Xie, Franco Leonardi, Alfredo Munoz and Feng Liang*
- T11. Electric Powertrain: Energy Systems, Power Electronics and Drives for Hybrid, Electric and Fuel Cell Vehicles. *John Hayes and Abas Goodarzi*
- T12. Design and Integration of Photovoltaic and Energy Storage Converters. *Martin Ordonez, Emanuel Serban and Francisco Paz*
- T13. Analysis, Simulation, and Implementation of Vector Control: An Extremely Low-Cost Laboratory. *Ned Mohan and Siddharth Raju*
- T14. Health-conscious Fast Charging Strategies and Battery Management Systems for Electrified Autonomous Transportation. *Sheldon Williamson*

ECCE2020 Special Sessions

- **SS1 (A&B):** Prof. Lipo's Memorial Session
- SS2: SiC Power Converters-based Grid Infrastructure: Technologies, Challenges, and Grid Applications
- SS3: Electric Vehicles: Implementation and Grid Interactive Applications
- SS4: Recent Successes in Accelerating the Adoption of Wide Bandgap Power Electronics
- SS5: Standard Development for Power Electronics Systems / Products
- SS6: Testing in the EV World – Simulators, Emulator, Dyno based and Vehicle level testing – Technologies, Trends, and Thoughts
- SS7: Adoption and Use of Standards in the Industrial Drives and in the Renewable Energy Grid Integration
- SS8 (A&B): Cybersecurity in Power Electronics
- SS9: Innovation Through Failing Better – Panel Session
- SS10 (A&B): Sustainable Energy Systems and Opportunities for Power Electronics
- SS11: Powering the Future: Criticality of System Engineering for E-Mobility and Automated Vehicles
- SS12: Heavy-duty All-electric Urban Aerial Vehicles (UAVs)
- SS13: Next Generation Power-Hardware-in-the-Loop (PHIL) Testing of Traction Inverters: Challenges and Opportunities
- SS14 (A&B): Power Electronics Intensive Power Systems: Modeling, Control, and Implementation
- SS15 (A&B): Electric Propulsion for Future Aero and Space Vehicles
- **SS17:** Dealing with Public Health Emergence: Online Life and Advanced Technologies in Remote Education
- SS18: Power Electronics Application in Standalone Wind/ Solar Based Distributed Generation System
- SS19: HVdc/MVdc/MTdc Technologies and Benefits to Grid
- **SS20:** Energy Access: Technologies, Impact and The Opportunity for PELS

ECCE2020 Technical Papers



ECCE2020 Technical Papers

First author Countries (top 10)

- Total = 70 Countries
- Authors = 4572

No.	Countries	Authors	All Papers
1	United States	1401	589
2	China	916	257
3	Japan	253	77
4	United Kingdom	195	64
5	Canada	192	94
6	Korea (South)	162	69
7	Italy	158	52
8	India	151	69
9	Brazil	141	71
10	Spain	112	36

ECCE2020 Technical Papers

T	All	Rejected	Final papers
A	124	49	75
B	184	72	112
C	27	10	17
D	99	37	62
E	233	78	155
F	241	79	162
G	217	59	158
H	152	61	91
I	128	46	82
J	2	0	2
K	72	29	43
Total valid:	1479	520	959

**Withdrawn
digest/papers**

133

ECCE proceedings submitted to IEEE on Oct 21, posted on IEEE Explore on Oct 30.

Review Quality

- All papers with at least 3 reviews
- Over 1200 Papers with at least 4 reviews
- Each paper have >4.2 reviews

ECCE TPC meeting

Two virtual TPC meetings:

- Vice Chair information sessions (April 1)
- TPC virtual session (April 18)

Similarity checks

- All papers went through IEEE similarity checks
- Communicate with authors of noncompliance papers

Total pre-recorded videos: 958

- Missing only one video as no show

ECCE2020 Journey

- Onsite conference planning till March 2020
 - Digest submission is fine overall in January - a bit lower compared to 2018/19
 - Paper review – similar process
 - TPC meeting in April - converted to virtual online meeting with two sessions.
 - All paper decisions done in time. Average over 4 reviews per paper.
 - Since March, closely monitor the COVID-19 situation and prepare for change (PCO flat fee, anticipate reduced number of attendees, plan for less oral sessions)

- Hybrid format planning May - July 2020
 - Accommodate remote presentation and attendees
 - ECCE survey sent out for hybrid format - 726 responses (50% prefer virtual option, 60% agree with virtual registration fees 40% lower than onsite fees)
 - ECCE hybrid format FAQ, author instructions
 - **Full paper submission – two weeks extension (July 15).**
 - ECCE registration system modification.
 - **Recommend registration for authors – virtual option.** Can convert to in-person later and pay the fee difference when travel can be confirmed
 - Budget analysis under various scenarios.
 - Negotiation with local regarding F&B, hotel room attritions.
 - Virtual platform evaluation.
 - Targeted final decision on onsite event – early August

ECCE2020 Journey

- Virtual-only conference planning since August
 - Detroit phase-5 opening did not happen in July.
 - Sent onsite event **force majeure request for IEEE approval on July 30.**
 - Within a few days – FAQ, sponsor policy, budgets, presenters instructions, etc. all updated. Thanks to the hybrid planning earlier.
 - All announcements and communication messages reviewed and approved by IEEE.
 - **PELS & IAS approval of 100% virtual ECCE on Aug 5.**
 - Force majeure negotiation with local completed on Aug 7 (no penalties).
 - **Official Announcement out on Aug 10.**

- ECCE virtual planning/design
 - Re-design the technical program with reduced number of sessions and more paper to each session (easier to navigate in virtual platform)
 - Live sessions scheduled in the morning (Eastern Time) to suit global attendees
 - Leave time for people to enjoy on-demand video at their flexibility
 - Confirm virtual platform vendors, design/test interface
 - Instructions text/videos for the virtual platforms
 - Promotion of virtual exhibition
 - Communications with authors, tutorial speakers, special session organizers, session chairs.
 - Training sessions, dry runs
 - Program book: digital design with links in pdf. Single column and large font size for easy viewing.
 - Volunteers for ZOOM administration, technical support, back up session chairs
 - Daily communications during conference.
 - Contingency plans and communication messages in case virtual platform problems – thankfully not used



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- ECCE 2021 Update -10 min (Giovanna Oriti, ECCE 2021 Chair)



**Meeting, Again. Safely!
Save the Date!**



IEEE ENERGY CONVERSION CONGRESS & EXPO Vancouver, Canada ≈ Oct. 10-14



Vancouver Convention Center - West

- **Sustainable building** (double LEED® Platinum certified facility), six-acre living roof
- Waterfront views from every window



Hotels



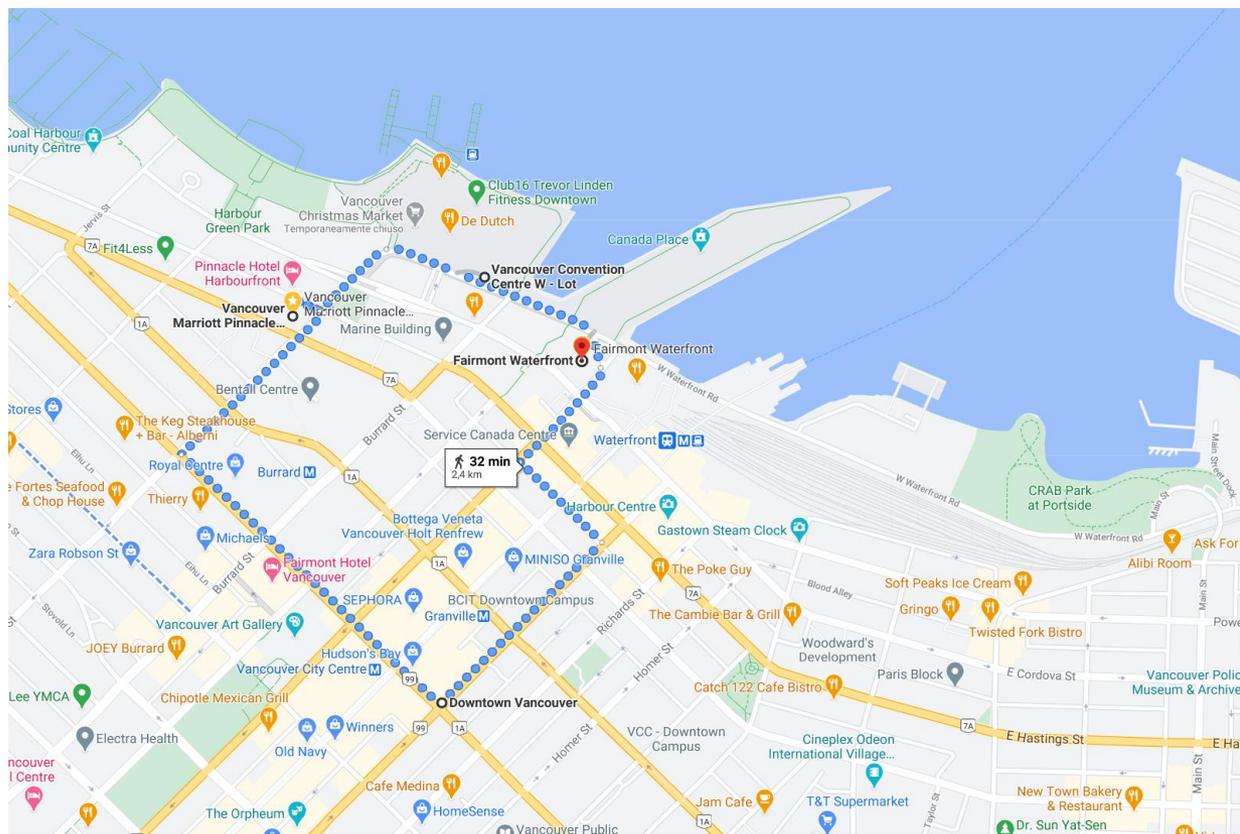
- Marriott Pinnacle Downtown
- Fairmont Waterfront



Live Vancouver!

[Click for 30 s Video](#)

- Hotels, convention center and downtown at hand
- Vancouver Inter. Airport (YVR) 20 min. from downtown



Many Attractions in Vancouver

- Port of Vancouver (**largest port in Canada**)
- Cruise Ship Terminal (**4th largest in the world**)
- Stanley Park
- Capilano Suspension Bridge
- H.R. MacMillan Space Centre
- Aquarium
- Science World
- Grouse Mountain
- Vancouver Art Gallery
- VanDusen Botanical Garden
- and many others...



Important Dates

- Jan. 15th, 2021 - Deadline for digest submissions
- Feb 12th, 2021 – Deadline for **Tutorials**
- Mar 31st, 2021 – Deadline for **Special Sessions**
- April 2nd, 2021 – Tutorial decision notification
- May 1st, 2021 – Digest and Special Sessions decision
- Jun. 30th, 2021 - Final papers with copyright forms

For details visit our website:

<http://www.ieee-ecce.org/2021/>



2021

IEEE ENERGY CONVERSION CONGRESS & EXPO Vancouver, Canada Oct. 10-14

Organizing Committee



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- Awards Chair: Christina DiMarino

12 from industry,
17 from academia,
1 US gov. lab



IEEE ENERGY CONVERSION CONGRESS & EXPO Vancouver, Canada ☞ Oct. 10-14



See you in October 2021 - in Vancity!!





IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- State of the IAS – 10 min. (Georges Zissis, IAS President)



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Agenda

- Closing remarks & Motion to adjourn – 1 min. (Pericle Zanchetta, IPCSD Chair).