



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



IPCSD Department Meeting

Fernando Briz, IPCSD Chair
Luca Solero, IPCSD Vice-Chair

Sunday, October 29, 2023
(16:00 – 18:00)

IPCSD Staff Committees

Awards

Chair: Robert Guenther



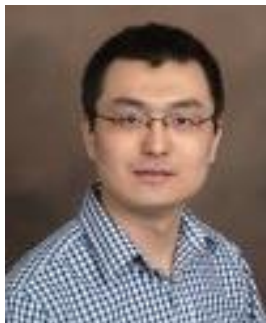
Standards

Chair: Emmanuel Agamloh



Conference Development

Chair: Xiaonan Lu



Diversity, Equity and Inclusion

Chair: Giovanna Oriti





IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Welcome and Meeting Opening –1 min. (Fernando Briz, IPCSD Chair)

- * Welcome from the IAS President – 10 min. (Andy Knight, IAS President)
- * Report on the IPCSD Awards Committee –10 min. (Bob Guenther, IPCSD Awards Chair)
- * Report on IAS Editorial meeting -5 min. (Leon Tolbert, IAS Publications Chair)
- * Report IPCSD Standards Committee -5 min. (Emmanuel Agamloh, IPCSD Standards committee Chair)
- * Report IPCSD - DEIC (Giovanna, IPCSD-DEIC Chair)
- * Report Conference Development (Xiaonan, IPCSD-Conference Development Chair)
- * AS Educations Dept. -5 min (Pericle, IAS Education Dept. Chair)
- * Key updates of technical committees (standards, websites, papers & conferences, other) -30 min
 - EMC (Greg Heins, EMC Chair)
 - DC (Luca Zarri, EMC Chair)
 - IPCC (XiaonanLu, IPCC Chair)
 - RSECS (AkshayKumar Rathore, RSECS Chair)
 - TSC (Mohammad Anwar, TSC Chair)
 - PEDCC (Francesco Iannuzzo, PEDCC Chair)
- * ECCE 2023 Update -10 min (Brad Lehman, ECCE 2023 Chair)
- * ECCE 2024 Update -5 min (Rolando Burgos, ECCE 2022 Chair)
- * Nomination new IPCSD Vice-Chair – 10 min (Pericle)
- * Closing remarks & Motion to adjourn –1 min. (Fernando Briz, IPCSD Chair).

Agenda

- ✓ Welcome and Meeting Opening – 1 min. (Fernando Briz, IPCSD Chair)
- ✓ Welcome from the IAS President – (Andy Knight, IAS President)
- ✓ Report on the IPCSD Awards Committee – 10 min. (Bob Guenther, IPCSD Awards Chair)
- ✓ Report on IAS editorial meeting - 5 min. (Leon Tolbert, IAS Publications Chair)
- ✓ Report on IPCSD standards committee - 5 min. (Emmanuel Agamloh, IPCSD Standards committee Chair)
- ✓ Key updates of technical committees (standards, websites, papers & conferences, other) - 30 min
 - EMC (Greg Heins, EMC Chair)
 - IDC (Luca Zarri, EMC Chair)
 - IPCC (Xiaonan Lu, IPCC Chair)
 - RSECSC (Akshay Kumar Rathore, RSECS Chair)
 - TSC (Mohammad Anwar, TSC Chair)
 - PEDCC (Francesco Iannuzzo, PEDCC Chair)
- ✓ ECCE 2023 Update -10 min (Brad Lehman, ECCE 2023 Chair)
- ✓ ECCE 2024 Update -10 min (Rolando Burgos, ECCE 2024 Chair)
- ✓ ECCE 2026 Chair - 2 min (Fernando Briz, IPCSD Chair)
- ✓ Other business & Motion to adjourn – 1 min. (Fernando Briz, IPCSD Chair).



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Welcome from IAS President

Andy Knight

IAS President



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



IPCSD Award Committee Report

Robert N Guenther, Jr

IPCSD Awards Chair

October 20, 2023



IEEE INDUSTRY APPLICATIONS SOCIETY
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.

2023 Awardee: Noriko Kawakami

(Toshiba-Mitsubishi-Electric Industrial Systems Corporation (TMEIC))

IAS Gerald Kliman Award – past recipients

2023 – Noriko Kawakami

2022 – Ayman EL-Refaie

2021 – Robert Guenther

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



IAS members in IEEE Fellow Class 2023 (nominated through other societies)

Name	Region	Class	Citation	Sponsoring Society
Munaf Rahimo	R8 - Europe, MEast, Africa	2023	For contributions to high-voltage insulated gate bipolar transistors for grid applications	ED
Chenghui Zhang	R10 - Asia and Pacific	2023	For contributions to control of renewable energy systems	IE
Fei Gao	R8 - Europe, MEast, Africa	2023	For contributions to real-time simulation and control techniques for fuel cells and power converters	IE
Zhigang Liu	R10 - Asia and Pacific	2023	For contributions to fault detection and protection in high-speed railway power systems	IM
Ali Davoudi	R5 - Southwestern USA	2023	For contributions to power-electronic dominant micro-grid control	PEL
Xiongfei Wang	R8 - Europe, MEast, Africa	2023	For contributions to power-electronic-based power systems	PEL



8 IAS members in IEEE Fellow Class 2023 (nominated through IAS)

Name	Region	Class	Citation	Sponsoring Society
Bilal Akin	R5 - Southwestern USA	2023	For contributions to control, diagnosis and condition monitoring of AC drives	IA
Chengxiong Mao	R10 - Asia and Pacific	2023	For leadership in active control of power systems and its industrial applications	IA
Jean-luc Schanen	R8 - Europe, MEast, Africa	2023	For contribution to Electromagnetic Compatibility in Power Electronics	IA
Kashem Muttaqi	R10 - Asia and Pacific	2023	For contribution to modeling and control of renewable and distributed energy resources	IA
Marko Hinkkanen	R8 - Europe, MEast, Africa	2023	For contributions to sensor-less control of industrial motor drives	IA
Masaaki Okubo	R10 - Asia and Pacific	2023	For contributions to non-thermal plasma applications for pollution control	IA
Mingzhou Xu	R6 - Western USA	2023	For contributions to power systems of all-electric aircraft	IA
Yilmaz Sozer	R2 - Eastern USA	2023	For contributions to the design and control of electric machine drives	IA



IEEE Fellow (**Deadline to Submit Nominations for Fellow Class of 2025: !! February 7, 2024 !!**)

Note: Fellow Class of 2024 will be announced near the end of 2023

- 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>



2022 IAS Awardees

- Outstanding Achievement: **Iqbal Husain**
- Mentor/Educator Award: **Paresh C. Sen**
- Andrew W. Smith Outstanding Young Member Achievement Award:
Zhao Hao Ding
- Outstanding Young Member Service Award:
Payman Dehghanian

IAS awards

- IAS IPCSD Gerald Kliman Innovator Award (Deadline: June 1, 2024 for the 2024 Kliman Award)
- 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)
- IEEE AS Outstanding Educator/Mentor (Deadline: March 15)
- IEEE Fellow (Deadline: March 1, 2024 for Fellow class of 2025)
- Richard Harold Kaufmann Award (Deadline: Jan 15)
- IAS Distinguished Lecturers (Deadline: April 30 (??))



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Report on IAS Editorial Meeting

Leon Tolbert

IAS Publications Chair

IAS Publications Meeting at ECCE

Tom Nondahl, EiC, IEEE Transactions on Industry Applications

Leon Tolbert, IAS Publications Department Chair

Oct. 2023

Editorial Meeting

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State of Transactions

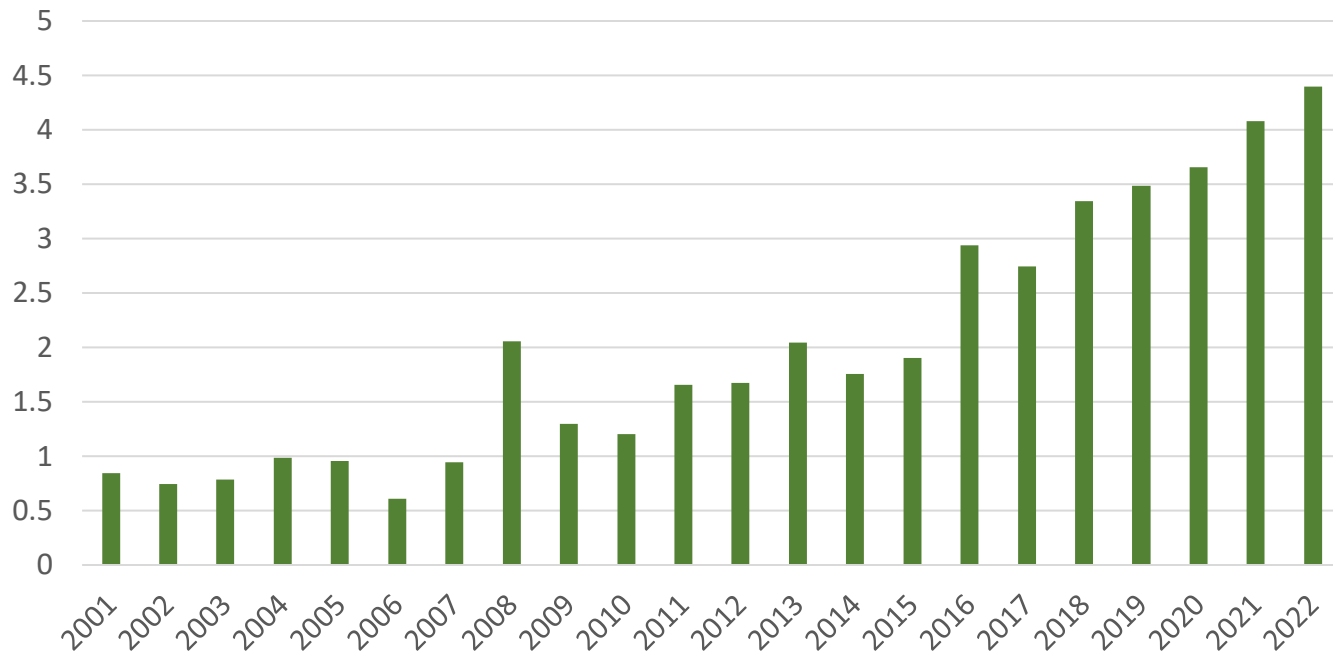
Editorial Meeting

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2023 Transactions Highlights

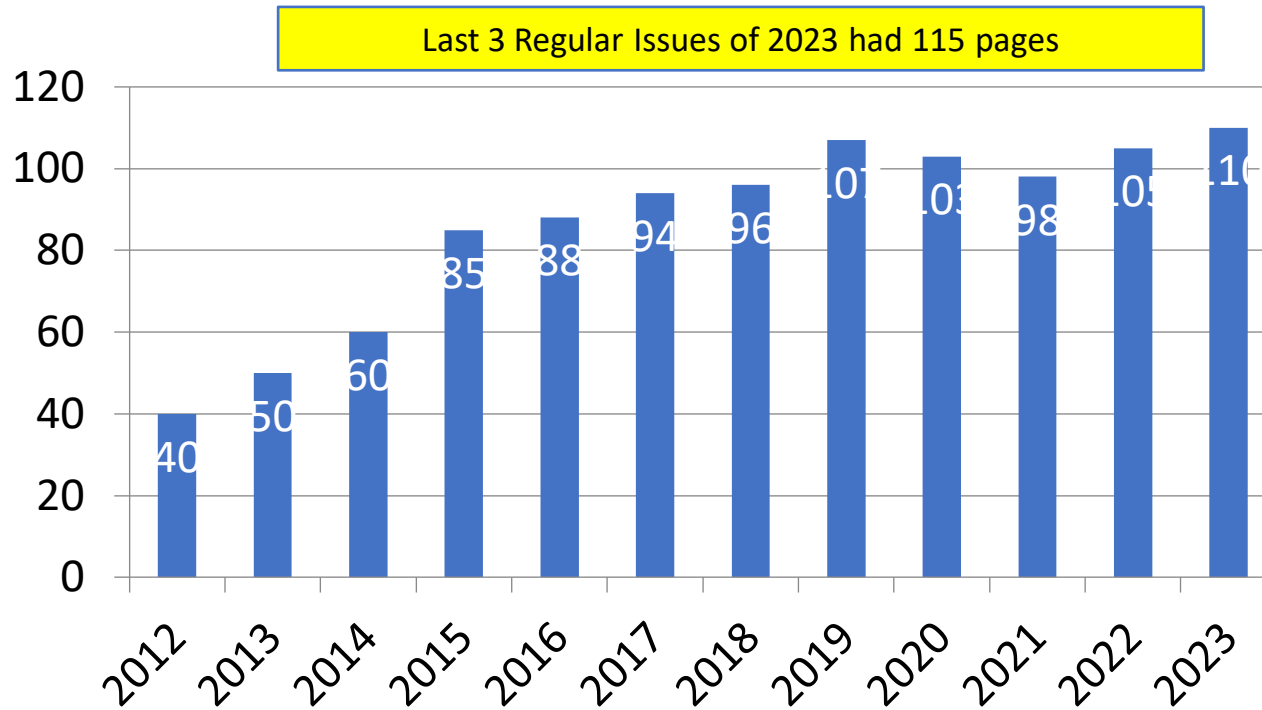
- Number of Published Papers Increased
 - Final three regular issues in 2023 had 115 papers versus 105 in 2022
- Conference Paper Similarity Check
 - 8 papers returned to authors in 2023, total of 96 since 2018
 - Only 1 of the 96 was from IPCSD
- Deputy Editor-in-Chief's Completed First Full Year in 2023
 - Dr. Xiaodong Liang for Special Issues
 - Dr. Kashem Muttaqi for Conference Paper Invitations
- 2022 Impact Factor Increased to 4.40
 - Reported in June 2023

TIA Impact Factor by Year



Editorial Meeting

Avg. Number of Papers in Regular Issues of TIA



Number of TIA Papers and Pages

Year	# of Papers Printed or *Planned	# of Pages Printed or *Planned	Average # Pages/Paper	Included
2015	552	5456	9.88	6 Reg. , 1 SI, Index, Reviewer List
2016	525	5380	10.25	6 Reg., Index, Recog. of Reviewers
2017	619	6084	9.83	6 Reg., 1 SI, Recog. of Reviewers
2018	626	6632	10.60	6 Reg., 1 SI, Recog. of Reviewers
2019	719	7596	10.56	6 Reg., 2 SI, Recog. of Reviewers
2020	665	7294	10.97	6 Reg., 2 SI, Recog. of Reviewers
2021	633	7095	11.21	6 Reg., 2 SI, Recog. of Reviewers (35 paper SI was cancelled)
2022	703	8076	11.49	6 Reg., 3 SI, Recog. of Reviewers
2023	*705	*8000	11.5	6 Reg., 3 SI, Recog. of Reviewers

Reg. = Regular Issue, SI = Special Issue

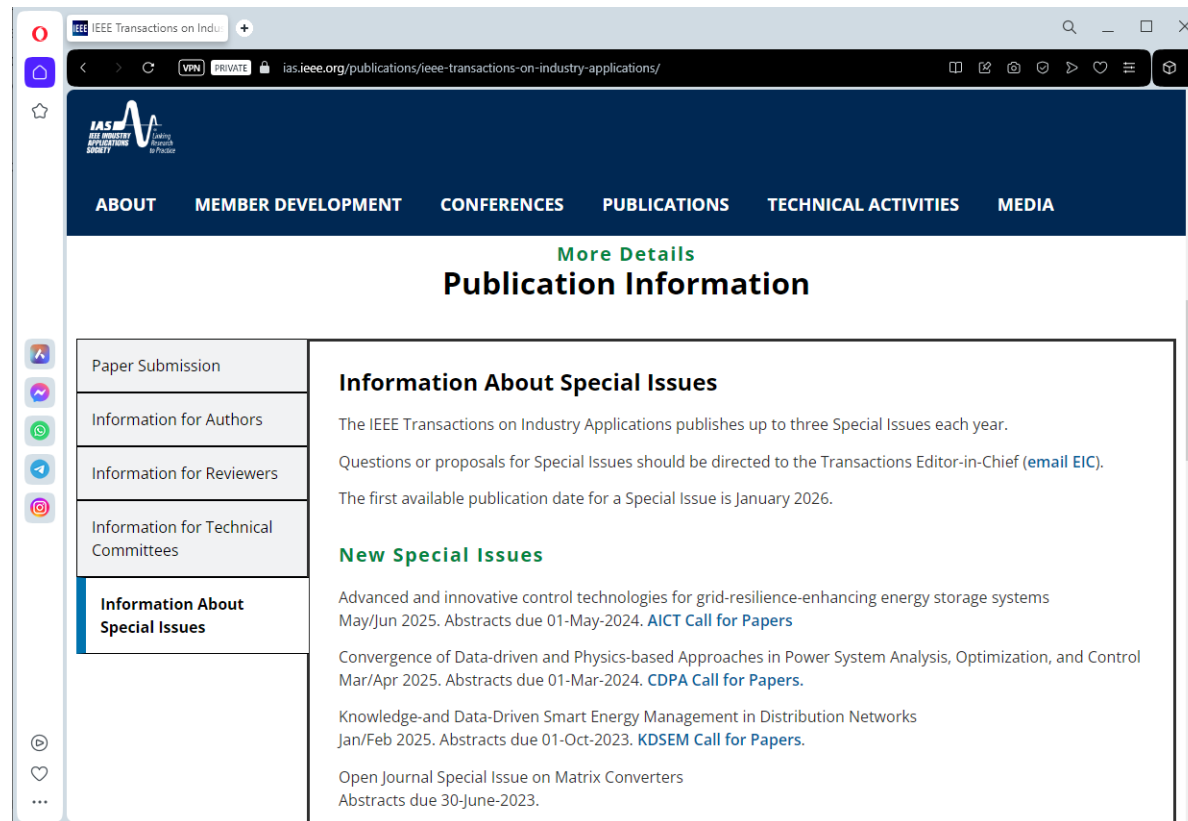
Special Issues of IEEE Transactions on Industry Applications – 2023

- Jan/Feb 2023 – 9 papers, Smart Buildings for Smart Cities
- Mar/Apr 2023 – 19 papers, Design and Optimisation of Electric Motors for Traction Applications
- Nov/Dec 2023 – 18 papers in Special Section from 2022 ICEM

Special Issues of IEEE Transactions on Industry Applications - Future

- Jan/Feb 2024 – 30 papers, Advances in Energy Conversion, Control, Operation and Planning Towards Self-Sustained Highway Transportation Energy System
- Mar/Apr 2024 – 30 papers, Towards Resilient Power Grids Integrated with High-Penetrated Renewable Energy Sources: Challenges, Opportunities, Implementation Strategies, and Future Perspectives
- Mar/Apr 2024 – 20 papers, Smart and small power conversion with integration technology
- Jan/Feb 2025 – 30 papers, Knowledge-and Data-Driven Smart Energy Management in Distribution Networks
- Mar/Apr 2025 – 30 papers, Convergence of Data-driven and Physics-based Approaches in Power System Analysis, Optimization, and Control
- May/Jun 2025 – 30 papers, Advanced and innovative control technologies for grid-resilience-enhancing energy storage systems
- Jan/Feb 2026 – 30 papers, Advanced Topologies, Control Techniques and Modeling Methodologies for Bidirectional DC/DC Converters

More Detail about Special Issues on Tab of Transactions page at <https://ias.ieee.org>



The screenshot shows a web browser window displaying the IEEE Transactions on Industry Applications website. The URL in the address bar is ias.ieee.org/publications/ieee-transactions-on-industry-applications/. The page features a dark blue navigation bar with the following menu items: ABOUT, MEMBER DEVELOPMENT, CONFERENCES, PUBLICATIONS, TECHNICAL ACTIVITIES, and MEDIA. Below the navigation bar, the page title is "More Details Publication Information". A sidebar on the left contains a vertical menu with the following items: Paper Submission, Information for Authors, Information for Reviewers, Information for Technical Committees, and Information About Special Issues (which is currently selected and highlighted in blue). The main content area on the right is titled "Information About Special Issues" and contains the following text:

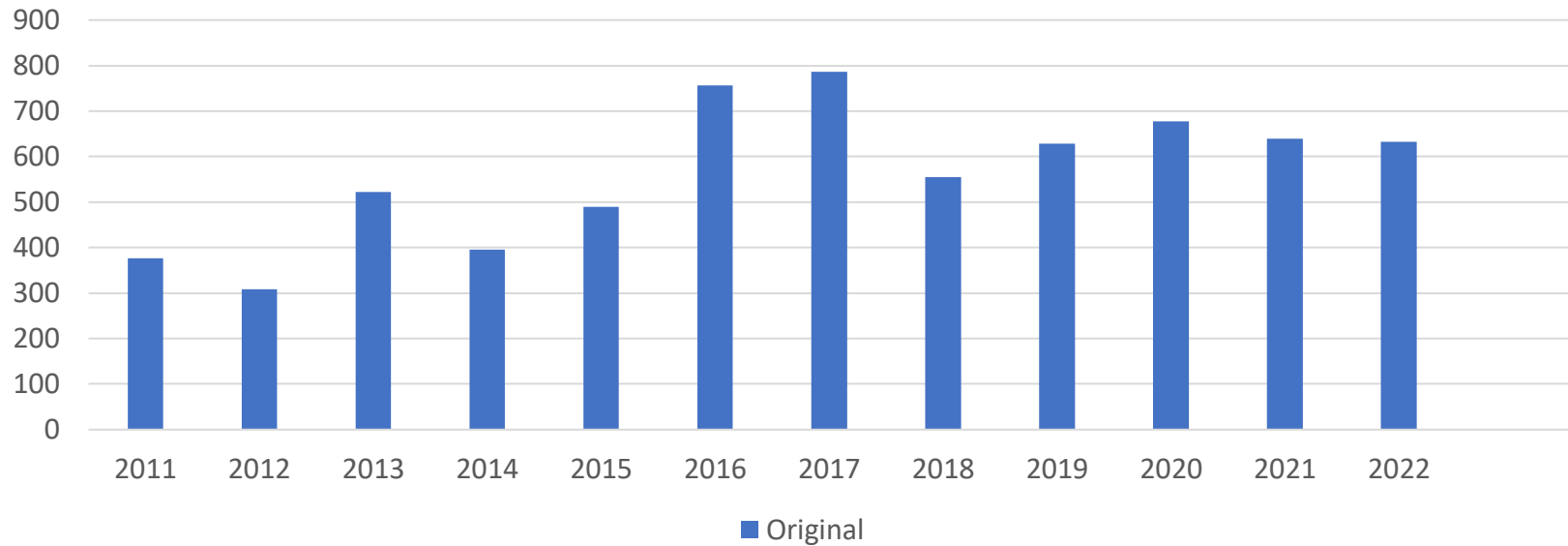
The IEEE Transactions on Industry Applications publishes up to three Special Issues each year. Questions or proposals for Special Issues should be directed to the Transactions Editor-in-Chief (**email EIC**). The first available publication date for a Special Issue is January 2026.

New Special Issues

- Advanced and innovative control technologies for grid-resilience-enhancing energy storage systems
May/Jun 2025. Abstracts due 01-May-2024. [AICT Call for Papers](#)
- Convergence of Data-driven and Physics-based Approaches in Power System Analysis, Optimization, and Control
Mar/Apr 2025. Abstracts due 01-Mar-2024. [CDPA Call for Papers](#).
- Knowledge and Data-Driven Smart Energy Management in Distribution Networks
Jan/Feb 2025. Abstracts due 01-Oct-2023. [KDSEM Call for Papers](#).
- Open Journal Special Issue on Matrix Converters
Abstracts due 30-June-2023.

Number of IPCSD Original Submissions per Year

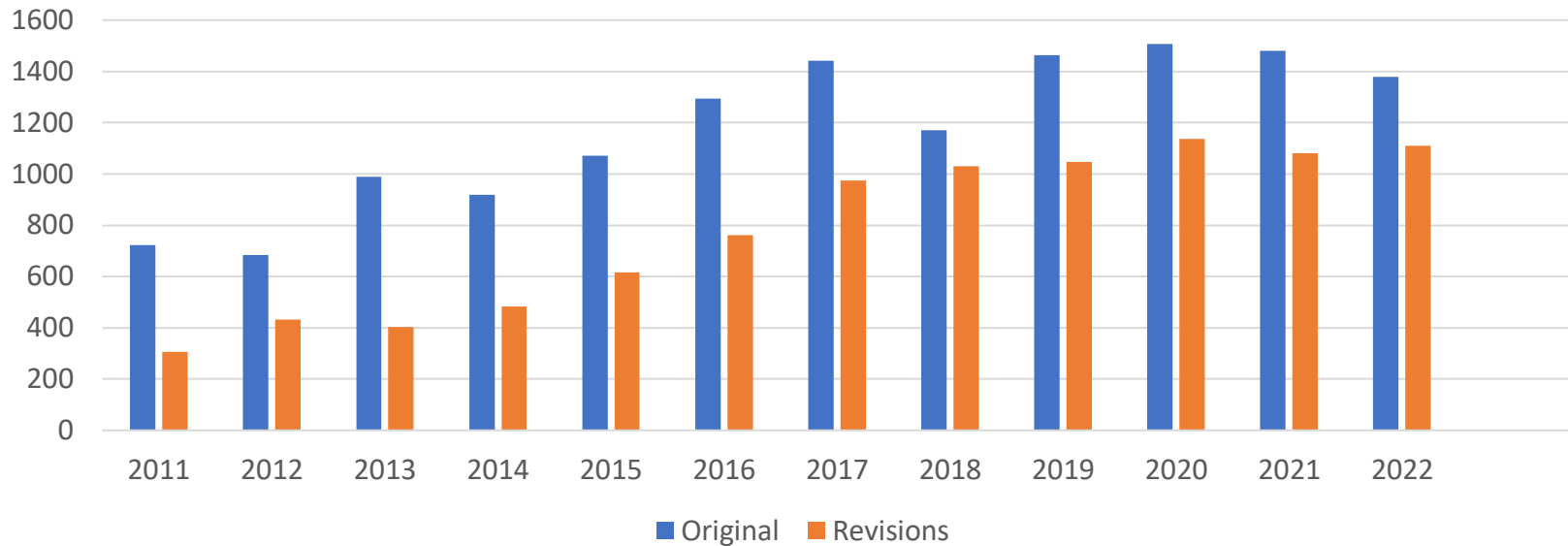
Number of Paper Submissions



Editorial Meeting

Number of IAS Original Submissions and Revisions per Year Includes Conf. and Spec. Issue Papers (Some conferences moved to dedicated sites in recent years)

Number of Paper Submissions



2022 Paper Submissions By Committee

Technical Committee	Original Submissions	Revised Submissions	Total Submissions
Power Systems Engineering Committee	218	157	375
Industrial Automation and Control Committee	215	179	394
Industrial Power Converter Committee	192	151	343
Electric Machines Committee	171	207	378
Renewable and Sustainable Energy Conversion Sys.	97	66	163
Energy Systems Committee	75	57	132
Petroleum and Chemical Industry Committee	74	29	103
Industrial Drives Committee	72	73	145
Transportation Systems Committee	72	63	135
Electrostatic Processes Committee	28	26	54
Power Electronic Devices and Components Comm.	28	15	43

2022 Paper Submissions By Special Issue or Committee, Continued

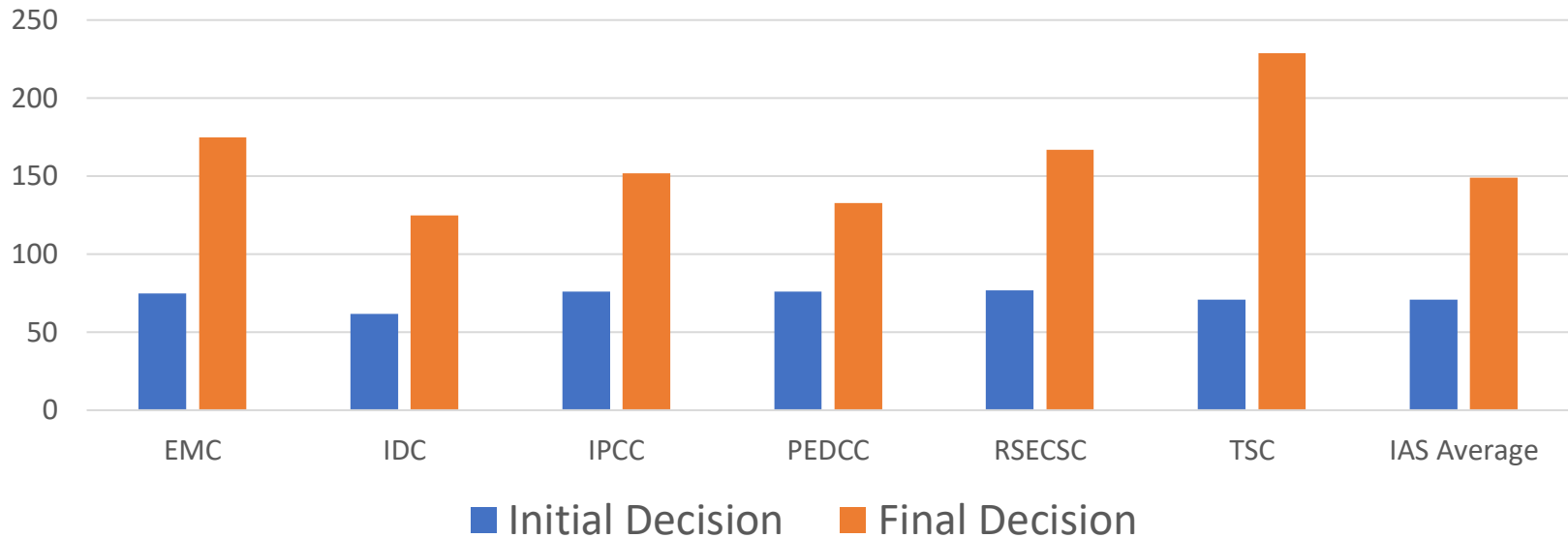
Technical Committee or Special Issue	Original Submissions	Revised Submissions	Total Submissions
Design and Optimisation of Electric Motors for Traction Applications	24	28	52
Power Systems Protection Committee	23	11	34
Cement Industry Committee	18	2	20
Industrial Lighting and Display Committee	15	4	19
Electrical Safety Committee	14	6	20
Smart Buildings for Smart Cities	12	10	22
Pulp and Paper Industry Committee	8	3	11
Metal Industry Committee	7	9	16
Advances in Energy Conversion, Control, Operation and Planning Towards Self-Sustained Highway Transportation Energy System	6	0	6
Smart and Small Power Conversion with Integration Technology	3	0	3
Special Feature, Discussion, or Response	2	0	2
Advanced Technology and Application for Hydrogen-Integrated Transportation and Power Systems	1	0	1
Codes and Standards Committee	1	1	2
Intelligent and Smart Charging Solutions for Electric Vehicles	1	9	10
Mining Industry Committee	1	4	5

Editorial Meeting

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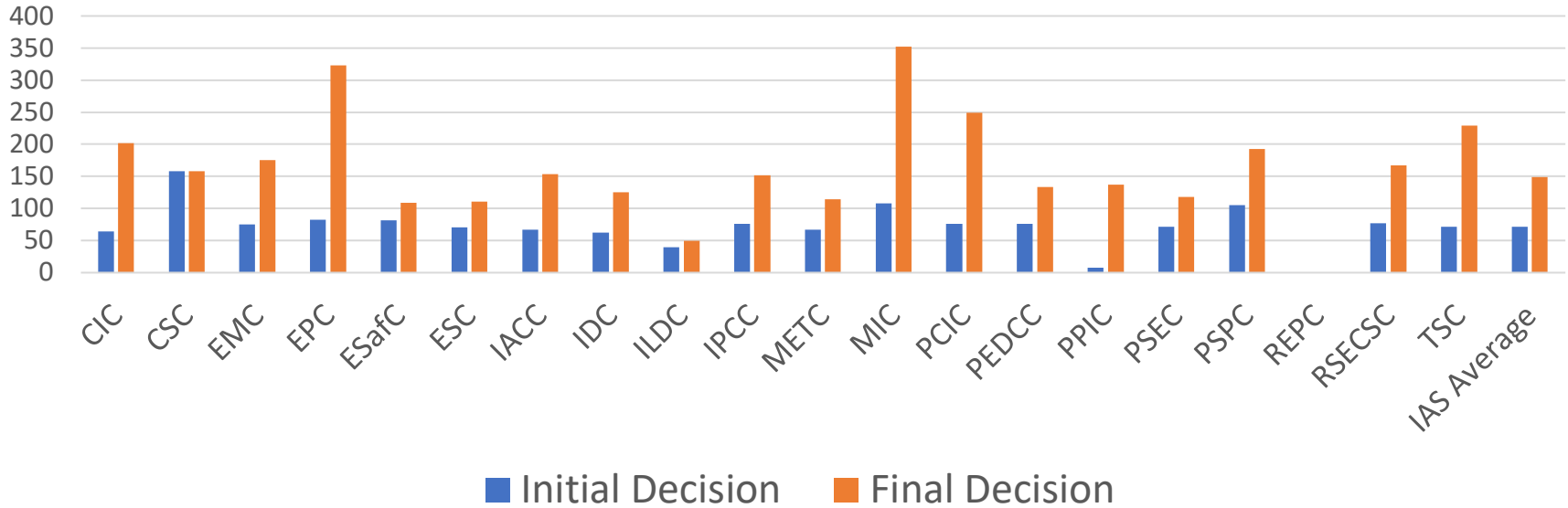
IPCSD Submission to Decision Time (Days) Past 12 Months ending 28-Sep-2023

Decision Times (Days) for IPCSD Technical Committees



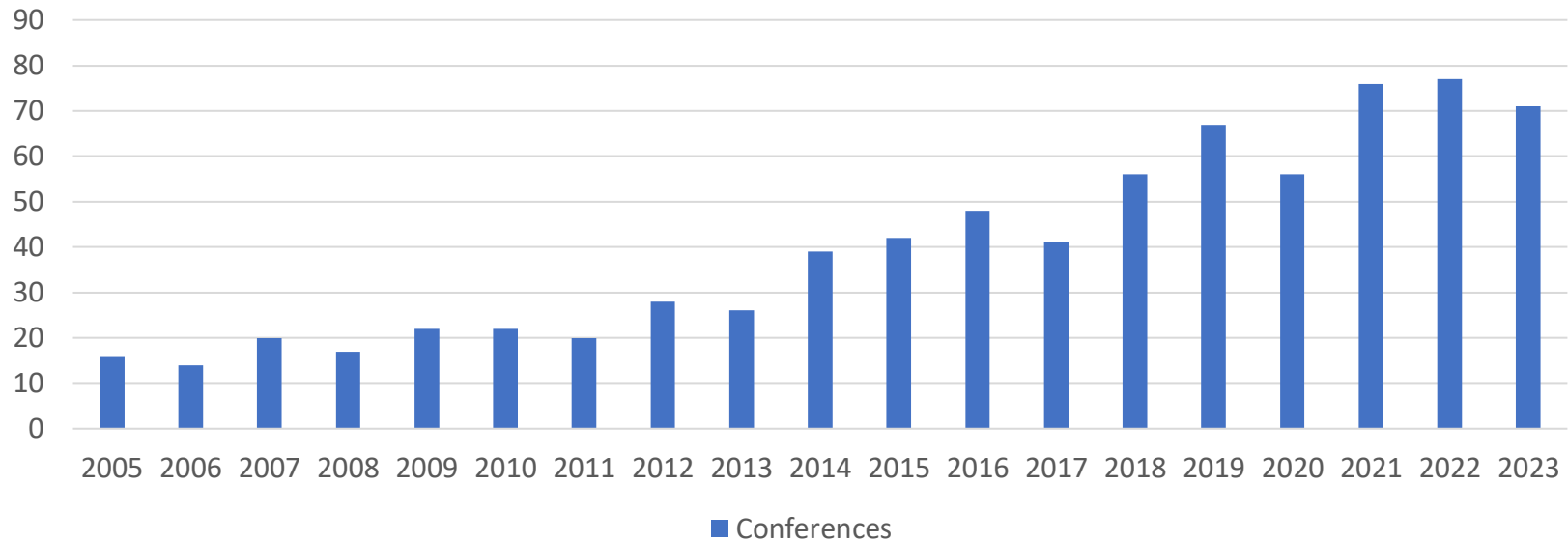
Days from Original Submission to Decision – past 12 months ending 28-Sep-2023

Decision Times (Days) for all IAS Technical Committees



Number of Technical Conferences Sponsored by IAS each Year – The Sources of TIA Papers

Number of Conferences Sponsored by IAS



Editorial Meeting

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Transactions Changes During the Last Year

- Most Conference Paper Invitation Requests handled by Dr. Kashem Muttaqi, Deputy EiC
- Printer Reduced Number of Pages Allowed per Issue
 - All Issues in 2023 were two Parts
 - One part had papers from IPCSD
 - One part had papers I&CPS, MSDAD, and PID
 - Special Issues published in the same part as the sponsoring Technical Committee
- Started Check on the Number of Reviewers
 - IEEE requires at least two who are not involved in the paper's decision
 - A few papers were sent back for review in 2023

Upcoming TIA Changes

- Paper Submissions without Invitations (Tentative)
 - No trial so far has been completely successful
 - Difficult to prevent papers from reaching TCPRC's without screening for eligibility
 - Screening rejects papers if they are out of scope, incomplete, poorly written, or otherwise ineligible for review.
 - Plan requires the transfer of papers from an administrative screening committee to one of the Technical Committees for review
 - IEEE contact says that will not work - but reason for that statement is unclear
 - IAS Editor has transferred papers from one committee to another many times without any obvious problems
- New Editor-in-Chief in 2024

Joint Publications

- Journal of Emerging and Selected Topics in Power Electronics
 - 50% owned with PELS
 - IAS now in deputy EiC Role – Fernando Briz
- Journal of Emerging and Selected Topics in Industrial Electronics
 - 10% share, mostly IES
- IEEE Electrification Magazine
- IEEE Transactions on Sustainable Energy
- IEEE Transactions on Transportation Electrification
- IEEE Transactions on Smart Grid



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Industrial Power Conversion Systems Department



Red Flag Papers Report

10/29/2023

Editorial Meeting



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Industrial Power Conversion Systems Department



Date	# papers in the list	# papers in red	EMC	IDC	IPCC	PEDCC	RESC	TSC
June 2023	13	0	8(0)	1(0)	2(0)	1(0)	1(0)	0(0)
Aug 2023	16	0	4(0)	1(0)	6(0)	3(0)	1(0)	1(0)
Sept 2023	13	0	3(0)	1(0)	6(0)	0(0)	2(0)	1(0)
Oct 2023	13	0	3(0)	0(0)	3(0)	0(0)	6(0)	1(0)
Papers by TC Nov 2022			93	51	94	11	42	34
Papers by TC Nov 2023			121	33	111	19	40	41



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



ECCE and TIA awards and editorial initiatives

10/29/2023

Editorial Meeting



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



IPCSD Technical Committees' Awards

- ❖ Each IPCSD Technical Committee is in charge for 2 different set of awards
 - Technical Committee ECCE award (1st, 2nd, 3rd prizes)
 - Technical Committee TIA award (1st, 2nd, 3rd prizes)
- ❖ All the TCs implemented and completed the process. Thank you!
 - 175 Electronic Certificates
 - 150 Printed Certificates

EMC update

1. EMC annual meeting
2. Initiatives
3. New AE appointments
4. Transactions Prize Papers
5. Publication trends

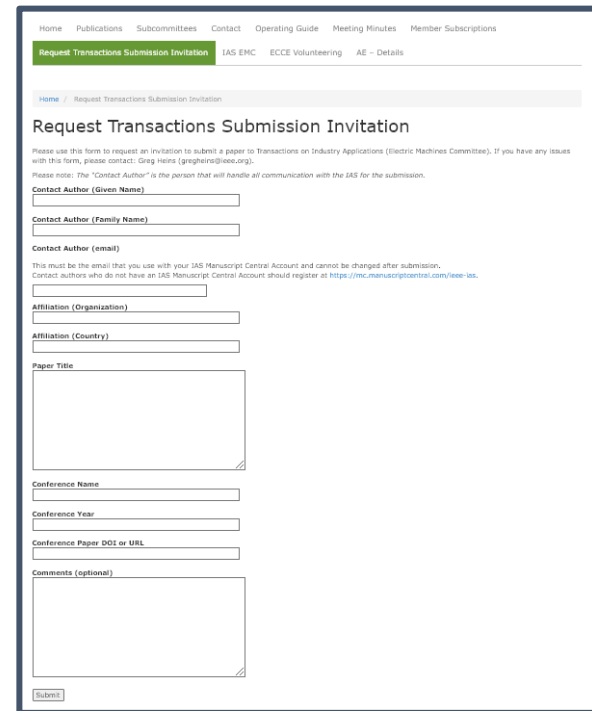
Initiatives: Process for Prospective Authors

- To submit papers presented at an IAS sponsored conference for IAS Transactions use:

<https://site.ieee.org/ias-emc/transactions-form/>

- 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/>



The screenshot shows a web form titled "Request Transactions Submission Invitation". The form includes a navigation menu at the top with links for Home, Publications, Subcommittees, Contact, Operating Guide, Meeting Minutes, and Member Subscriptions. Below the navigation, there are tabs for "Request Transactions Submission Invitation", "IAS EMC", "ECCE Volunteering", and "AE - Details". The main content area contains the following text and fields:

Home / Request Transactions Submission Invitation

Request Transactions Submission Invitation

Please use this form to request an invitation to submit a paper to Transactions on Industry Applications (Electric Machines Committee). If you have any issues with this form, please contact: Greg Heins (grehins@ieee.org).

Please note: The "Contact Author" is the person that will handle all communication with the IAS for the submission.

Contact Author (Given Name)

Contact Author (Family Name)

Contact Author (email)

This must be the email that you use with your IAS Manuscript Central Account and cannot be changed after submission. Contact authors who do not have an IAS Manuscript Central Account should register at <https://mc.manuscriptcentral.com/ieee-ias>.

Affiliation (Organization)

Affiliation (Country)

Paper Title

Conference Name

Conference Year

Conference Paper DOI or URL

Comments (optional)

New AE appointment

To replace some of our outgoing AEs and to add expertise in “high volume” areas we have appointed 2 new AEs.

The selection process was based on:

- a. Ongoing work as a TC for ECCE
- b. Performance as a reviewer for IAS EMC
- c. Expertise alignment with 2022 EMC needs

New EMC AEs are:

Matthew Gardner, Udochukwu Bola Akuru

Transactions Prize Papers

First Prize

Authors:

Emir Pošković; Luca Ferraris; Nicola Bianchi

Paper Title:

Different Approaches in the Use of Ferrites in Assisted Reluctance Machines

Second Prize

Authors:

Hui Wen; Yang Shi; Lijian Wu; Yidong Du; Youtong Fang

Paper Title:

Improving Combined Flow and Thermal Network Accuracy for Radially Air-cooled Generators by Considering the Non-linear Resistance Characteristics of T-junction Flow

Third Prize

Authors:

Daniel Ludois; Kevin Frankforter; Sarah Behringer; Finn Roberts

Paper Title:

Double Layer Capacitive Power and Heat Transfer in Rotating Machinery

ECCE prize papers

First Prize

Authors: Yuto Yamada, Hiroya Sugimoto and Kazuhito Imae

Paper Title: *Efficiency Improvement of Permanent Magnet Synchronous Machines With High Slot Fill Aluminum Winding*

Second Prize

Authors: Yaser Chulaee, Donovan Lewis, Greg Heins, Dean Patterson and Dan M. Ionel

Paper Title: *Winding Losses in Coreless Axial Flux PM Machines with Wave and Spiral PCB Stator Topologies*

Third Prize

Authors: Ryan Collin, Alex Yokochi and Annette von Jouanne

Paper Title: *EDM Damage Assessment and Lifetime Prediction of Motor Bearings Driven by PWM Inverters*

EMC historical trends

First Decision Time By Committee IPCSD (All Time and Last 12 Months)

Manuscript Type	First Decision (All Time) 2021	First Decision (All Time) 2022	First Decision (12 Months) 2021	First Decision (12 Months) 2022
Electric Machines Committee	72	71	74	75

Final Decision Time By Committee IPCSD (All Time and Last 12 Months)

Manuscript Type	Final Decision (All Time) 2021	Final Decision (All Time) 2022	Final Decision (12 Months) 2021	Final Decision (12 Months) 2022
Electric Machines Committee	138	114	157	174

Action is required to improve the final decision time

Editorial Meeting

Industrial Drives Committee

Prof. Luca Zarri - Chair

University of Bologna, Italy

Prof. Jul-Ki Seok – Paper Review Chair

Yeungnam University, Korea

Acceptance rate and days to final decision

Period: Jan. 2023 – Oct. 2023	Num. of papers with a final decision
Accepted papers	24
Rejected papers	34
Total	58

.4	%
Acceptance rate (2023)	41.4%
Acceptance rate (2022)	39.5%
Acceptance rate (2021)	50%
Acceptance rate (2020)	36%

	2023	2022	2021	2020
Days to first decision	74.1	69.2	70	67
Days to final decision	107.0	109.3	105	96

Awards Subcommittee

- **María Martínez, University of Oviedo - Spain (Chair)**
- - Prof. Alejandro Gomez Yepes (University of Vigo - Spain)
- - Prof. Gianmario Pellegrino (Politecnico di Torino)
- - Prof. Nicola Bianchi (University of Padova)
- - Dr. Takashi Kato (Nissan Motor Co. Ltd)
- - Dr. Michael Saur (Mercedes-Benz AG)
- - Dr. Hassan Eldeeb (SLPT Automotive)
- - Mrs. Ozge Taskin (Safran Group)
- - Prof. Liliana De Lillo (University of Nottingham)



Review criteria for selecting ECCE2022 Paper Awards and IDC Transactions Paper Awards

The review criteria included 6 specific quality indicators. A score from 0 to 10 was given for each of the parameters below.

- A. Readability** (Is the paper easy to read, do the conclusions follow from the data?).
 - B. Use of Figures and Graphics** (Do the figures and graphics clearly illustrate the data?)
 - C. Novelty** (Does the paper leads to a deeper understanding of the paper's subject? Does the paper lead to a new advanced knowledge of the paper's subject? Is it original?)
 - D. Broad Interest** (Is the paper's topic of interest outside of a narrowly targeted audience?)
 - E. Significance** (Is the paper's subject matter of significance in the paper's defined field of interest?)
 - F. Impact** (Will the paper have an impact on future research and development?)
- ❖ The selection was based on the highest total scores. The highest-scored papers had to satisfy a threshold set for combined scores of the Significance, Impact parameters and Novelty.
 - ❖ The papers were ranked in decreasing order of Impact+Significance+Novelty. For the papers that had same score, a second rank considering also Readability+Figure Quality was used.

20 papers examined for the ECCE awards.

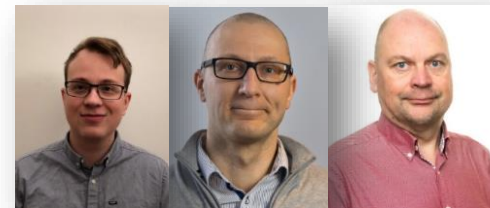
51 papers examined for the IDC Transaction awards.

2022 IEEE ECCE Conference Paper Awards

First paper award: Harikrishnan Pookulangara, Pratyush Pandey, Jose Titus and Kamalesh Hatua, "Fault Tolerant Operation of an LCI and VSI-fed Hybrid Induction Machine Drive for Medium Voltage High Power Applications," 2022 IEEE Energy Conversion Congress and Exposition (ECCE), Detroit, MI, USA, 2022, pp. 1-7, doi: 10.1109/ECCE50734.2022.9947770.



Second paper award: Lauri Tiitinen, Marko Hinkkanen, and Lennart Harnefors, "Stable and Passive Observer-Based V/Hz Control for Induction Motors," 2022 IEEE Energy Conversion Congress and Exposition (ECCE), Detroit, MI, USA, 2022, pp. 1-8, doi: 10.1109/ECCE50734.2022.9948057.



Third paper award: Isavella Koukoula, Petros Karamanakos, and Tobias Geyer, "Three-Level Optimized Pulse Patterns With Reduced Common Mode Voltage," 2022 IEEE Energy Conversion Congress and Exposition (ECCE), Detroit, MI, USA, 2022, pp. 1-8, doi: 10.1109/ECCE50734.2022.9948149.



Industrial Drives Committee Transactions Paper Awards

First paper award: Takafumi Hara, Shun Taniguchi, Toshiyuki Ajima, Masanori Sawahata, Masahiro Hori, Takaya Tsukagoshi, and Katsuhiko Hoshino, "Synchronous PWM Control With Carrier Wave Phase Shifts for Permanent Magnet Synchronous Motor," in IEEE Transactions on Industry Applications, vol. 58, no. 5, pp. 5650-5658, Sept.-Oct. 2022, doi: 10.1109/TIA.2022.3187679.



Second paper award: Shuvam Chakraborty and Suman Maiti, "Control of a Waveshaper-MMC With Thyristor-Based Front-End Converter for Open-End Winding Variable Speed Medium-Voltage Induction Motor Drive," in IEEE Transactions on Industry Applications, vol. 58, no. 5, pp. 6203-6216, Sept.-Oct. 2022, doi: 10.1109/TIA.2022.3180041.



Third paper award: Amir Ganjavi, Dinesh Kumar, Firuz Zare, Amin Abbosh, Hansika Rathnayake, and Pooya Davari, "Effect of Choke Placement on Common-Mode Noise in Three-Phase Variable Speed Drives," in IEEE Transactions on Industry Applications, vol. 58, no. 5, pp. 6253-6265, Sept.-Oct. 2022, doi: 10.1109/TIA.2022.317546.



IPCSD Editorial Meeting

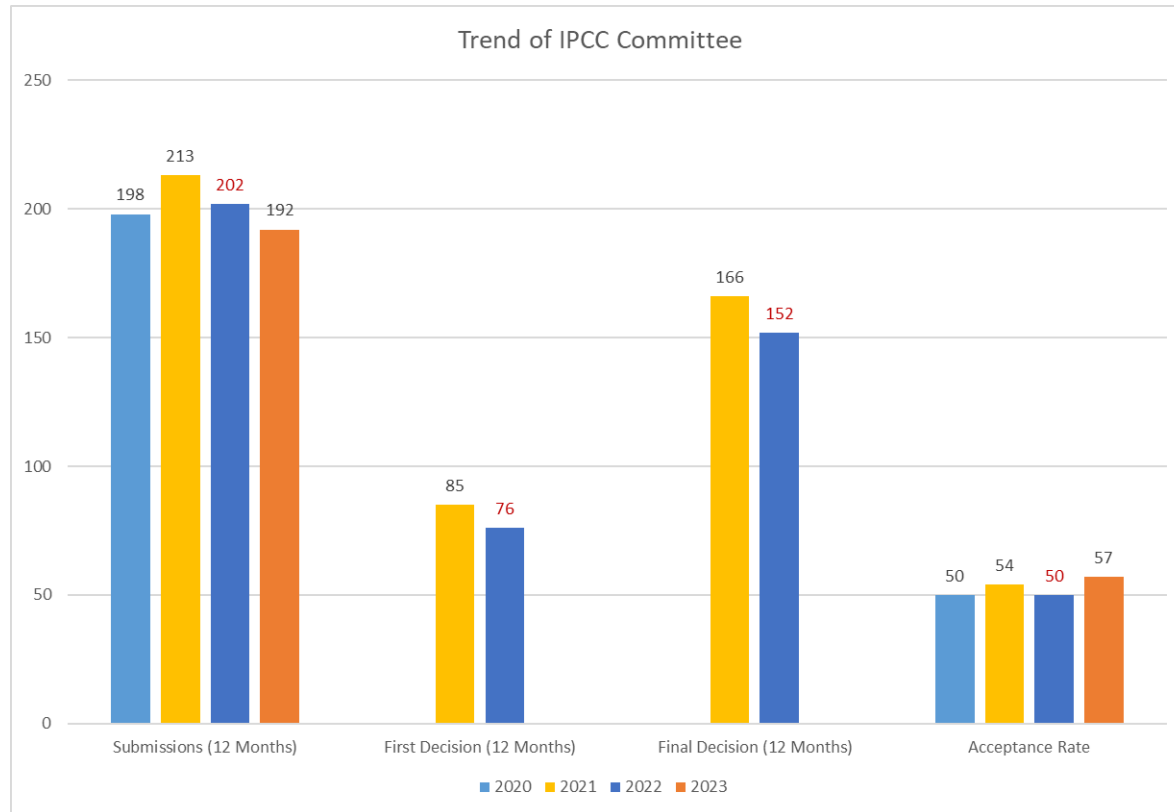
Report on Industrial Power Converter Committee (IPCC) Activities

Xiaoan Liu
Purdue University, IN, USA
IAS IPCC Chair

Stefano Bifaretti
University of Rome Tor Vergata, Italy
IAS IPCC Transactions Papers Review Chair

October 29th, 2023

IPCC Transactions Papers Indicators



IPCC Prize Papers Awards for ECCE 2022

- IPCC was responsible for any paper included in Track E and F
- According to the 2022 IPCSD guidelines, a preselection process has been performed to reduce the workload of the Awards Subcommittee (about 116 papers for Track E and 72 papers for Track F)

Final Ranking IPCC ECCE 2022 Awards

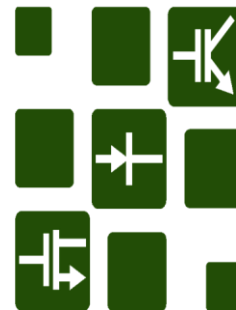
Rank	Authors	Paper Title
1	Ripun Phukan, Xingchen Zhao, Che-Wei Chang, Rolando Burgos, Dong Dong, Arnaud Plat and Debbou Mustapha	Optimized DC-AC EMI Filter Design for DC-Fed High Speed SiC-Based Motor Drive
2	Thiago Pereira, Yuqi Wei, Homer A. Mantooth and Marco Liserre	Analysis and Design of a Multiport Resonant DC Transformer for Solid-State Transformer Applications
3	Ryan Olson, Ahmad El Shafei, Robert M. Cuzner, Yue Zhao, Ma Zhuxuan, Adel Nasiri and Tianchen Li	Derivation and Validation of a Common-Mode Model for a Neutral Point Clamped Dual Active Bridge

IPCC Prize Papers Awards for Transactions on Industry Applications 2022

According to the 2022 IPCSD guidelines, to reduce the workload of the Awards Subcommittee (about 100 papers published in 2022 through IPCC), the top-10 papers have been preselected, based on the M-score provided by Manuscript Central, and then evaluated.

Final Ranking for IPCC TIA 2022 Awards

Rank	Authors	Paper Title
1	Luca Tarisciotti, Linglin Chen, Shuai Shao, Tomislav Dragicevic, Patrick Wheeler, Pericle Zanchetta	Finite Control Set Model Predictive Control for Dual Active Bridge converter
2	Fanfan Lin, Xin Zhang, Xinze Li, Changjiang Sun; Wenjian Cai, Zhe Zhang	Automatic Triple Phase Shift Modulation for DAB Converter with Minimized Power Loss
3	Xinyuan Du, Fei Diao, Zhe Zhao, Yue Zhao	An All Silicon Carbide 3kV/540V Series-Resonant Converter for Electric Aircraft Systems



IEEE-IAS

**POWER ELECTRONICS
DEVICES AND COMPONENTS
COMMITTEE**

IPCSD Editorial Meeting PEDCC Report

Francesco Iannuzzo, Aalborg University, PEDCC Chair
Zhiqiang (Jack) Wang, HUST, Wuan, China, PEDCC Transaction Chair
Jose Ortiz Gonzales, University of Warwick, UK, PEDCC Award Chair

October 29th, 2023
4 pm to 6 pm CDT





2022 Technical Committee TIA awards (PEDCC)

PEDCC selected **3 papers** to receive the 2022 **Technical Committee TIA awards**, and can nominate **1 paper** as potential candidate for the IAS Transactions awards

Award Nomination Committee:

Name	Affiliation
Tanya Gachovska	Solantro Semiconductor, Canada
Yushan Liu	Beihang University, China
Zheyu Zhang	Rensselaer Polytechnic Institute, USA
Jose Ortiz-Gonzalez	University of Warwick, UK
Zhiqiang (Jack) Wang	Huazhong University of Science and Technology, China



2022 Technical Committee TIA Awards (PEDCC)

First Prize Paper Award

Shi Pu, Fei Yang, Nathan Zhang,
Bhanu Teja Vankayalapati, and Bilal Akin

University of Texas at Dallas, USA

for the paper

**“A Comparative Study on Reliability and Ruggedness
of Kelvin and Non-Kelvin Packaged SiC MOSFETs”**

IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 3, MAY/JUNE 2022

Second Prize Paper Award

Wenzhao Liu, Dao Zhou, Francesco Iannuzzo,
Michael Hartmann, and Frede Blaabjerg

Aalborg University, Denmark

for the paper

**“Separation and Validation of Bond-Wire and Solder
Layer Failure Modes in IGBT Modules”**

IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 2, MARCH/APRIL 2022

Third Prize Paper Award

Koji Ori~~ka~~wa, Shotaro Kanno, and Satoshi Ogasawara

Hokkaido University, Japan

for the paper

**“A Winding Structure of Air-Core Planar Inductors for
Reducing High-Frequency Eddy Currents”**

IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 6, NOVEMBER/DECEMBER 2022



IEEE-IAS

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IEEE ENERGY CONVERSION CONGRESS & EXPO Nashville, TN | OCT.29-Nov.2

Will Portnoy Award 2023 (PEDCC Best Papers Award)

- All the 15 shortlisted paper – Very high quality
- High quality submissions in our ECCE track in 2022
- 1st, 2nd and 3rd position – Awards
- **Very relevant** topics to Track I.

Award Committee

Professor Francesco Iannuzzo, University of Aalborg, Denmark

Dr Francisco Freijedo, Huawei Technologies, Nuremberg

Dr Yushan Liu, Beihang University, Beijing, China

Dr Zheyu Zhang, Clemson University, United States

Dr Jose Ortiz Gonzalez, University of Warwick, United Kingdom



IEEE-IAS

POWER ELECTRONICS
DEVICES AND COMPONENTS
COMMITTEE



Will Portnoy Award 2023 (PEDCC Best Papers Award)

2023 1st Prize Paper Award

Kohei Horii, Ryuzo Morikawa, Katsuhiro Hata, Kenichi Morokuma, Yukihiko Wada, Yoshiko Obiraki, Yasushige Mukunoki and Makoto Takamiya
University of Tokyo and Mitsubishi Electric Corporation

for the paper

"Sub-0.5 ns Step, 10-bit Time Domain Digital Gate Driver IC for Reducing Radiated EMI and Switching Loss of SiC MOSFETs"

presented at the 2022 IEEE Energy Conversion Congress and Exposition (ECCE)

2023 2nd Prize Paper Award

Yunlei Jiang, Borong Hu, Bo Wen, Yanfeng Shen and Teng Long
University of Cambridge and Danfoss Silicon Power R&D

for the paper

"Methodology for Large-signal Loss Characterization of Ferroelectric Class II MLCC in High-frequency Range"

presented at the 2022 IEEE Energy Conversion Congress and Exposition (ECCE)

2023 3rd Prize Paper Award

Jun Imaoka, Matsuta Kazuya, Hiroki Ochiai, Koichi Shigematsu, Mostafa Noah and Masayoshi Yamamoto
Nagoya University

for the paper

"Feasible Evaluations of Low Profile Magnetic Structure Based on Meander Winding and Split-Magnetic Cores with High-Cooling Capability Used in Power Converters"

presented at the 2022 IEEE Energy Conversion Congress and Exposition (ECCE)



ECCE 2023 Topic 'I'

Power Semiconductor Devices, Passive Components, Packaging, Integration, and Materials

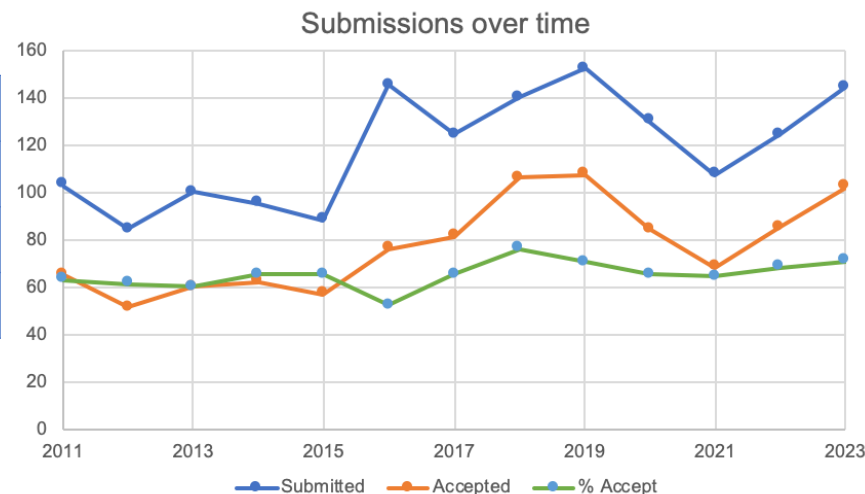
102 accepted, out of 144 digests submitted

70.8% acceptance – pretty much in line with the last, and close to that in 2019

High-quality review: average 4.5 reviews per paper (min 3), a little bit higher than 4.3 last year

Comparison with prior years

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Submitted	103	84	100	95	88	145	124	140	152	130	107	124	144
Accepted	65	51	60	62	57	76	81	106	107	84	68	85	102
% Accept	63	61	60	65	65	52	65	76	70.4	65	64	68	70.8



Vice Chairs

Francesco Iannuzzo, Aalborg University, Denmark
Yushan Liu, Beihang University, China
Jungwon Choi, University of Minnesota, USA



IEEE-IAS

POWER ELECTRONICS
DEVICES AND COMPONENTS
COMMITTEE



IEEE ENERGY CONVERSION CONGRESS & EXPO Nashville, TN | OCT.29-Nov.2

Other activities: Newsletters

- Starting in June 2022, six newsletters have been sent to committee members through emails, and uploaded to the committee website
- Quarterly newsletters will be continuously sent





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

Annual Meeting
29 October 2023

Chair – Akshay Kumar Rathore, Singapore
Vice Chair and TCPRC – **Ke Ma**, China
Vice Chair of Conferences – **Eduard Muljadi**, USA
Secretary – Behrooz Mirafzal, USA
Past Chair – Adel Nasiri, USA

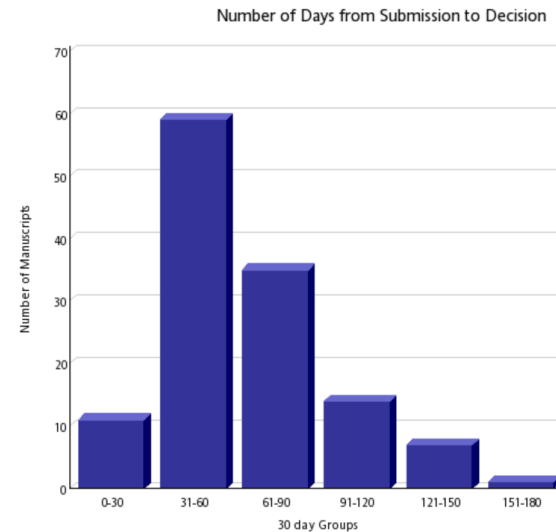
Publications Chair Report

- Manuscripts submission to Renewable and Sustainable Energy Conversion Systems Committee:
 - **64 original + 81 revised = Total 145 (Oct. 2022 to Oct. 2023)**
 - **127 with decisions (40 Accept-31%, 27 Reject-21%, 60 Revision-47%)**
- Average Submission to First Decision Time: **62 days** (65 days last year)



Ke Ma
Shanghai Jiao
Tong University,
China

Took over since Feb.
2022



Paper submission statistics by country and month

Country/Region of Submitting Author	# Manuscripts	Percentage
Australia	3	2.1 %
Bangladesh	1	0.7 %
Belgium	3	2.1 %
China	10	6.8 %
Denmark	2	1.4 %
Finland	2	1.4 %
Greece	6	4.1 %
India	62	42.5 %
Italy	4	2.7 %
Japan	1	0.7 %
Korea (the Republic of)	2	1.4 %
Mexico	3	2.1 %
Norway	4	2.7 %
Saudi Arabia	3	2.1 %
Spain	11	7.5 %
Sweden	1	0.7 %
United Arab Emirates	1	0.7 %
United States	24	16.4 %
Viet Nam	3	2.1 %
Summary	146	100.0 %

India 42%, U.S. 16%

Submission Month	# Manuscripts	Percentage
October 2022	7	10.8 %
November 2022	7	10.8 %
December 2022	6	9.2 %
January 2023	4	6.2 %
February 2023	5	7.7 %
March 2023	3	4.6 %
April 2023	4	6.2 %
May 2023	6	9.2 %
June 2023	8	12.3 %
July 2023	3	4.6 %
August 2023	4	6.2 %
September 2023	3	4.6 %
October 2023	5	7.7 %
Summary	65	100.0 %

**1st submission:
Oct.+Nov. 22%, June 12%**

TIA award 2023 under RSECS

- **RSECS Transactions Papers Awards :**
 - **First:** A Comparative Simulation Study of The Different Variations of PZT Piezoelectric Material by Using A MEMS Vibration Energy Harvester - **Bapi Debnath, R. Kumar**
 - **Second:** Fault-Tolerant Operation of a Multi-Mode Stacked Switch Rectifier Leg through Built-In Circuit Redundancy - **Reza Emamalipour, John Lam**
 - **Third:** Adaptive Position Observer for Multimode Wind-BES Based Microgrid Interfaced to Distribution Network - **Subarni Pradhan, Bhim Singh, Bijaya Ketan Panigrahi**

42 Vice Chairs from IAS and PELS

ECCE level

Track Name	Track	Vice Chair	Vice Chair	Vice Chair
◆ Sustainable Energy, Energy Storage and Power-to-X Technologies	A	Eduard Muljadi	Ariya Sangwongwanich	Akanksha Singh
◆ Grid Modernization and Smart Grid	B	Radha Sree Krishna Moorthy	Marius Langwasser	Yuan Li, Gab-Su Seo, Heng Wu
◆ Big Data, Machine Learning, Cyber Security and Design Automation	C	Yenan Chen	Liang Du, Yufei Li	Yicheng Liao
◆ Transportation Electrification Applications	D	Matthias Preindl	Tao Yang	Jin Ye
◆ Power Converter Topologies	E	Mahshid Amirabadi, Khurram Afridi	Dong Cao, Wenkang Huang, Hanh-Phuc Le	Jin Moon, Yongsug Suh
◆ Controls, Modelling and Optimization of Converters	F	Pankaj Bhowmik Pradyumn Chaturvedi	Daniel Costinett Petros Karamanakos	Jinia Roy
◆ Electrical Machines	G	Giulio De Donato	Rukmi Dutta	Narges Taran
◆ Electric Drives	H	Ali Bazzi, Antonio J. Marques Cardoso	Kevin Lee, David Reigosa	Sara Roggia
◆ Power Semiconductor Devices, Passive Components, Packaging, Integration, and Materials	I	Jungwon Choi	Francesco Iannuzzo	Yushan Liu
◆ Energy Efficient Systems Applications and Lighting Technologies	J	Padmanaban Sanjeevikumar		
◆ Applied Research and Emerging Technologies	K	Qiang Wei	Hua Zhang	
◆ Conflict of Interest	M	Dong Dong		

ECCE 2023 Contributions –Track A

- Track A - Sustainable Energy, Energy Storage and Power-to-X Technologies (RESC contributions)
- IAS-RESC provided 1 Vice Chair [Ke Ma](#) to work with the Topic Chairs:

Subtrack	Topic	Papers submitted
A1	Wind energy applications	16
A2	Solar energy applications	18
A3	Power converters in renewable and sustainable energy application	63
A4	Energy storage and harvesting	27
A5	Hybrid renewable sources	5
A6	Power-to-heat applications	2
A7	Power-to-hydrogen technologies	11
A8	Other topics in renewable and sustainable energy applications	17

ECCE 2023 Contributions – Track A

- 159 papers submitted
- 102 papers were accepted, acceptance rate 64 %
- ECCE 2023 was decided to be in person conference
- All technical sessions were presented in person and some are video-based on demand.
- **Special thanks to our topic and session chairs!**

ECCE 2022 Prize Papers

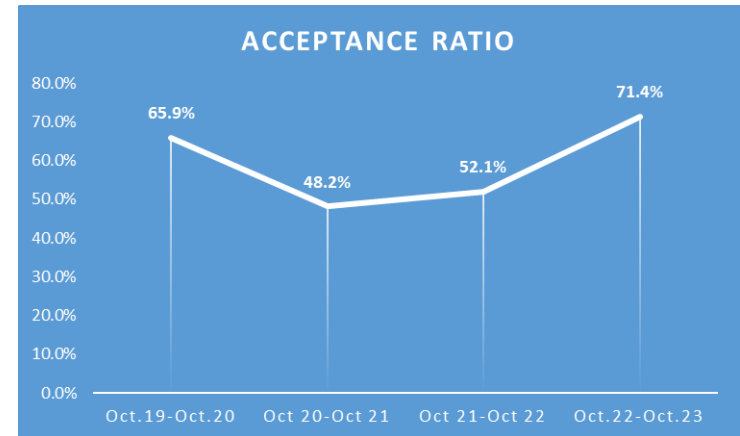
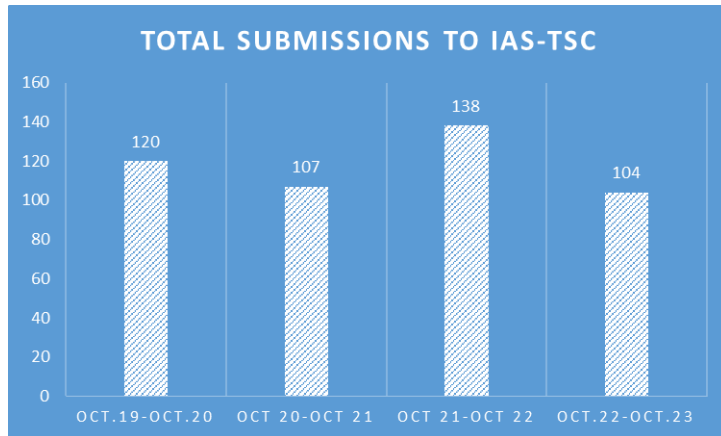
- **First Prize:** *A Trade-off Between Cost and Efficiency in Solid-State Circuit Breakers.*
Co-authors: Reza Kheirollahi, Xin Zan, Shuyan Zhao, Yao Wang, Hua Zhang, Xiaonan Lu, Al-Thaddeus Avestruz and Fei Lu
- **Second Prize:** *A Comparison of PI-Based and Sorting-Based State of Charge Balancing Methods in Cascaded H-Bridge Converters.*
Co-authors: Gaowen Liang, Ezequiel Rodriguez, Glen Farivar, Naga Brahmendra Yadav Gorla, Neha Beniwal, Josep Pou, and Georgios Konstantinou
- **Third Prize:** *Automated Detection of Failures in Doubly-Fed Induction Generators for Wind Turbine Applications.*
Co-authors: Byambasuren Battulga, Muhammad Faizan Shaikh, Sang Bin Lee, and Mohamed Osama
- **Third Prize:** *Inertia Evaluations on Grid Forming Inverters with Virtual Synchronous Generator Control Applied to Photovoltaic Power Systems.*
Co-authors: Qiang Lin, Tetsu Shijo, Kenichirou Ogawa, Hiroshi Uno, Yasuhiro Kanekiyo, and Junichi Arai

Transportation Systems Committee (TSC) -- IPCSD Editorial Meeting

John Kisacikoglu, Ph.D.
National Renewable Energy Laboratory
TSC Vice Chair – Papers

Presenter: JiangBiao He, Ph.D.
University of Kentucky
TSC Secretary

Transaction Paper Review: Manuscript Status (Last Four Years)



TSC ECCE Prize Paper Award - 2023



A High Power Density 3-phase/1-phase Compatible MISN-PFC Converter for On-Board Charger

Wending Zhao
College of Electrical Engineering
Zhejiang University
Hangzhou, China
ZJU-Hangzhou Global Scientific and
Technological Innovation Center
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Tianlin Huang
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Xinke Wu
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ZJU-Hangzhou Global Scientific and
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Active Filter Circuit in the HF AC-link of a Bidirectional Wireless Battery Charger for EV

Asier Garcia-Bediaga
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Ander Avila
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Alejandro Rujas
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Miroslav Vasic
Center for Industrial Electronics (CEI)
Technical University of Madrid (UPM)
Madrid, Spain
0000-0001-9597-6409



Impact of Vehicle Requirements on Accessory Power Module Design for Ultium Electric Vehicle Platforms

Ranya Badawi
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Steven Wybo
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Mohammad Anwar
Engineering Product
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TSC Prize Paper Award for IEEE Transactions on Industry Applications - 2022

2400 IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 2, MARCH/APRIL 2022

Noninvasive Aging Analysis of Lithium-Ion Batteries in Extreme Cold Temperatures

Adrian Soto , *Student Member, IEEE*, Alberto Berrueta , *Member, IEEE*, Ignacio Oficialdegui,
Pablo Sanchis , *Senior Member, IEEE*, and Alfredo Ursúa , *Senior Member, IEEE*



IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 2, MARCH/APRIL 2022

Modeling, Simulation, and Characterization of a Supercapacitor in Automotive Applications

Vincenzo Castiglia , Nicola Campagna, *Student Member, IEEE*, Antonino Oscar Di Tommaso ,
Rosario Miceli , *Member, IEEE*, Claudio Nevoloso , Filippo Pellitteri, Christian Puccio, and Fabio Viola 



5248 IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 4, JULY/AUGUST 2022

Analytical Derivation of Phase-Current Waveform for Elimination of Torque and Input-Current Ripples of Switched Reluctance Motor Operating Under Magnetic Saturation

Takayuki Kusumi , *Member, IEEE*, Kosuke Kobayashi, Kazuhiro Umetani , *Member, IEEE*,
and Eiji Hiraki , *Member, IEEE*

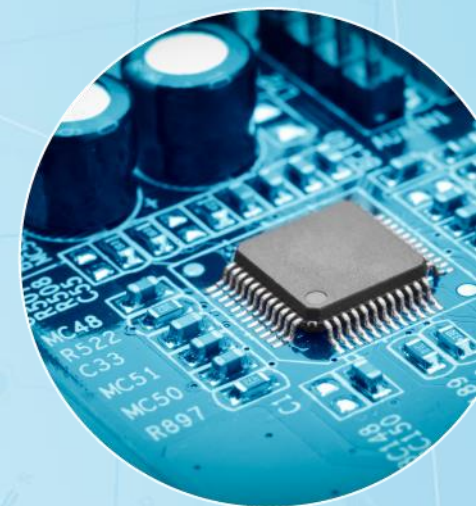




IEEE Open Journal of Industry applications update

EiC: Prof. Pericle Zanchetta

October 2023



Govern ance

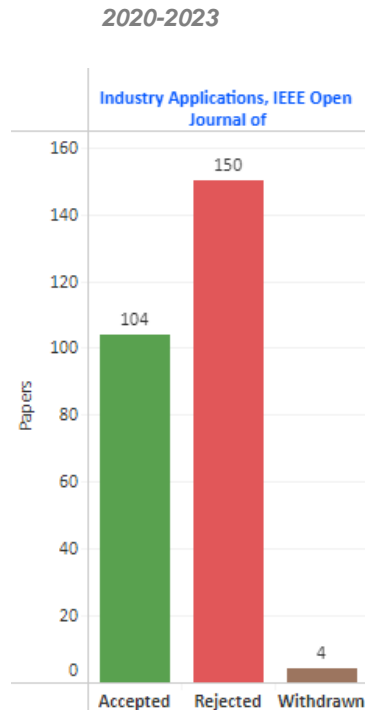
Advisory Board

- ▶ Prof. Pericle Zanchetta, University of Nottingham (UK) and University of Pavia (Italy) - **Editor in Chief**
- ▶ Prof. Luca Solero, University of Roma Tre - **Deputy Editor in Chief**
- ▶ Prof. Andy Knight, University of Alberta (Canada) – **President, IEEE IAS**
- ▶ Prof. Leon Tolbert, University of Tennessee, (USA) – **Publications Dept Chair, IEEE IAS**

Editorial Board

- ▶ Composed by the editor in chief, the deputy editor in chief and 19 Associate Editors from all IAS departments.

Journal Statistics



Papers 258

#Accepted 104

#Rejected 150

Acceptance Rate 41%

Avg Days to First Decision 40.6

Avg Days to Final Decision 62.7

Avg Days to Final Decision

Region	Year	Submitting Authors %
Region 1-6 (U.S.A)	2023	23.33%
	2022	22.22%
	2021	20.00%
	2020	23.73%
	2019	9.09%
Region 7 (Canada)	2023	10.00%
	2022	6.94%
	2021	8.75%
	2020	11.86%
	2019	9.09%
Region 8 (Europe/Africa/Middle East)	2023	36.67%
	2022	29.17%
	2021	38.75%
	2020	30.51%
Region 9 (Central/South America)	2023	3.33%
	2022	4.17%
	2021	3.75%
	2020	1.69%
Region 10 (Asia/Pacific)	2023	26.67%
	2022	37.50%
	2021	28.75%
	2020	32.20%
	2019	63.64%

Journal performance

Indexing

- 4 issues of the OJIA have been released so far:
 - ◆ 2020 (23 papers)
 - ◆ 2021 (31 papers)
 - ◆ 2022 (21 papers)
 - ◆ 2023 (26 papers up to October)
- The journal checked all boxes for being indexed and receive an IF in 2023 however, due to issues between IEEE publications and Scopus, its registration was delayed.
- All papers are now present in [Scopus](#), even if the journal is not yet in the Scopus titles list that is updated only twice per year (May and November). It should be there by the end of 2023.

Journal performance

2022

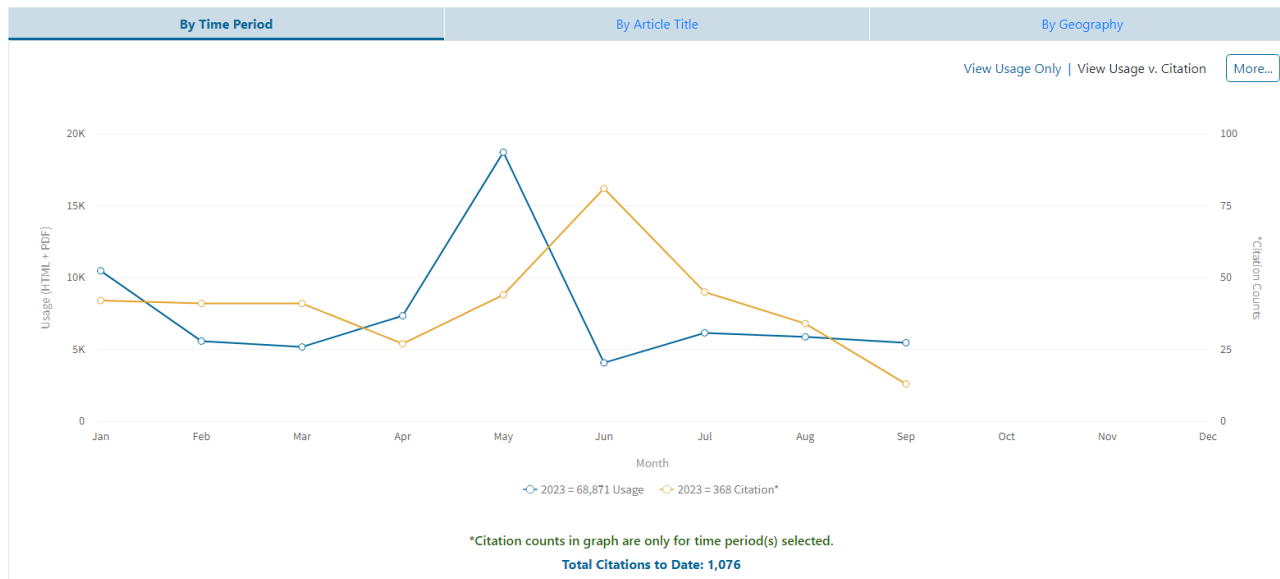
Total Usage for Jan - Dec 2022: 46,461 Usage per Article: 534.03 Cites per Article: 13.79 Impact Factor: N/A



Journal performance

2023

Total Usage for Jan - Sep 2023: 68,871 Usage per Article: 598.88 Cites per Article: 10.45 Impact Factor: N/A



**2023 Special issue IEEE Open Journal of Industry Applications
MATRIX CONVERTERS**

FREE PUBLICATION – NO APC

Deadline for Submission of Manuscripts: 31/12/2023

Editors: Prof. Pericle Zanchetta and Prof. Pat Wheeler University of Nottingham UK

Invited papers (NO APC)

Review papers on popular subjects are sought from prominent scientist in order to increase the visibility of the journal. Suggestions are welcome

Article Processing Charge (APC): US\$1995 – effective 1 January 2024

Discounts

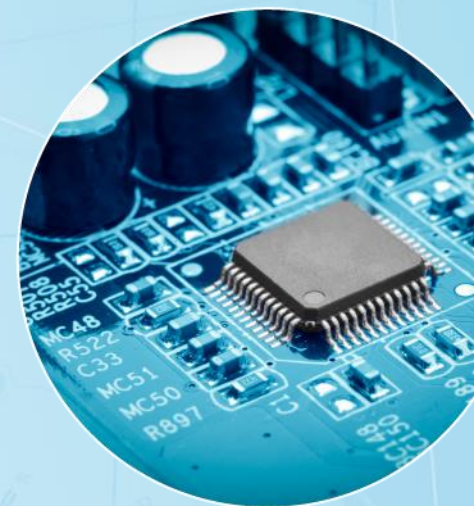
IEEE Members receive a 5% discount.

IEEE Society Members receive a 20% discount.

These discounts cannot be combined.



Thanks for your attention
Questions?



Report on IPCSD Standards Committee

Emmanuel Agamloh

IPCSD-SC 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:
 - ▶ Bruno Lequesne – TSC
 - ▶ Tanya Gachovskaya – PEDCC
 - ▶ Haran Karmaker – EMC
 - ▶ Kevin Lee – IDC
 - ▶ Lee Empiringham – IPCC
 - ▶ Adel Nasiri – RSEC

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

***Policies and Procedures for:
All Individual Method Working Groups of the Industrial Power
Conversion Systems Department Standards Development Committee***

- ▶ Submitted to SA for approval – May/June 2020,
 - Revised September/October 2020,
 - Scheduled for AudCom Meeting Date: December, 1 2020
 - Revised– Jan 22, 2021
 - **Approved**

List of On-going Standards

Project #1: IEEE P-11 (with PES)

"IEEE Std. 11: IEEE Standard for Rotating Electric Machinery for Rail and Road Vehicles"

- ▶ WG Chair: Tim Burress
- ▶ On-going revision since June 2015
- ▶ Seeking a new WG Chair

Project #2: IEEE P-1812 (with PES)

"IEEE Std. 1812: IEEE Guide for Testing Permanent Magnet Machines"

- ▶ WG Chair: Yao Duan
- ▶ On-going revision since August 2016
- ▶ Final approval obtained in 07/2023
- ▶ **Currently under editor review to be published**

Project #3: IEEE P-1415 (with PES)

"IEEE Std. 1415: Induction Machinery Maintenance Testing and Failure Analysis"

- ▶ WG Chair: Pinjia Zhang
- ▶ On-going revision since Oct. 2019

Project #4: IEEE P-620 (with PES)

"IEEE Std. 1812: Guide for the Presentation of Thermal Limit Curves for Squirrel Cage Induction Machines"

- ▶ WG Chair: Yao Duan
- ▶ Current revision: 1996 (reconfirmed 2008)
- ▶ Final approval obtained in 02/2022 and **published in 06/2022**

Project #5: IEEE P-252 (with PES)

IEEE Standard Test Procedure for Polyphase Induction Motors Having Liquid in the Magnetic Gap

- ▶ PAR submitted August 31, 2018 for revision
- ▶ Final approval obtained in 12/2022 and published in 08/2023

Project #6: IEEE P-114 (IAS/EMC)

IEEE Standard Test Procedure for Single-Phase Induction Motors

PAR approved September 26, 2021

- ▶ WG Chair: Maher Al-Badri
- ▶ First WG meeting held on October 26, 2021
- ▶ On-going revision

IPCSD Projects

Active Projects Since formation of IPCSD Stds Committee

- ▶ **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**
- ▶ **P3114:** IEEE Standard for Datasheet Parameters and Testing Protocols for Ultraviolet (UV) Light-emitting Diodes (LEDs)
 - ▶ **Chair: Tanya Gachovskaya, Vice Chair: Zheyu Zhang**
- ▶ **P114:** IEEE Standard test procedure for single-phase induction motors
 - ▶ **WG Chair : Maher Al-Badri**
- **IPCC ?? PELS P3380 ?**

IPCSD Projects

IDC

Chair: Kevin Lee
Secretary: Jiangbiao
He

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.
- WG Members from University and Industry



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.

P3114: Standard for Datasheet Parameters and Testing Protocols for Ultraviolet (UV) Light-emitting Diodes (LEDs)

Scope: The standard provides datasheet parameters pertaining to the optical, thermal, and electrical characteristics of UV LEDs, including UVA, UVB and UVC LEDs. Also, the standard defines standard testing protocols considering variation in technologies and products. Measurement protocols may pertain to electrical characterization, optical measurements, thermal measurements, and lifetime measurement and calculations.

Purpose: UV LEDs have gained tremendous popularity in applications ranging from curing (UVA) to disinfection (UVC). However, the lack of standards around UV LEDs, particularly in terms of consistency in listing and measuring datasheet parameters makes it difficult for product developers as well as end-product users to compare similar products. The purpose of this standard is to create an industry-wide parametric list and testing protocol to standardize the evaluation of UV LEDs.

IPCSD Projects

PEDCC

Chair: Tanya Gachovskaya

Vice Chair: Zheyu Zhang

Secretary: Inki Park

P2964 IEEE Standard working groups members:

Wolfgang Frank, Srivatsa Raghunath, Ziqing Zheng, Infineon Technologies, Germany, USA and China

Mitch Van Ochten, ROHM Semiconductor, USA

Inki Park, ON Semiconductor, USA

Ryan Schnell, Analog Devices Inc, USA

Michele Lauria, ST, USA

Tanya Gachovska, Mahmoud Nouri, Solantro Semiconductors, Canada

Xiaoqing Song, ABB, USA

Cong Li, General Electric, USA;

Yujia Cui, Rockwell Automation, USA;

Zheyu Zhang, Clemson University, USA

Danyang Zhu, Inventchip Tech, China

Liang Lin, Huazhong University of Sci& Tech, China

Jean-Luc Schanen, Grenoble Institute of Technology, France



Ongoing Projects

Visit the IPCSD website for ongoing projects

<https://site.ieee.org/ias->

(fernando@isa.uniovi.es)

IPCSD Vice-Chair: Luca Solero
(luca.solero@uniroma3.it)

Webmaster: Anant Kumar Singh
(anant_singh@ieee.org)

IAS Administrator: Lynda Bernstein
(l.m.bernstein@ieee.org)



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.

The IPCSD is actively involved in the development of standards. Various standards projects are currently on-going and new projects are planned for the near future.

Standard Number	Topic	IAS committee	Status	Contact
IEEE P11	Electric machines for rail and road	EMC	Update under way	buresssta@ornl.gov
IEEE Std. 112	Testing for polyphase induction machines	PE Society	Published 2018	
IEEE Std. 114	Single-phase induction machines	EMC	Published 2010	
IEEE Std. 1662	Power electronics in electrical power systems	IPCC, PCIC	Published 2017	ykhersonsky@ieee.org
IEEE Std. 1709	Medium-voltage DC power systems on ships	IPCC, PCIC	Published 2010	ykhersonsky@ieee.org
IEEE Std. 1812	PM machine testing	EMC	Under revision	eagamloh@ieee.org
IEEE P252	Induction machines with liquid in gap	EMC	PAR approved Dec. 2018	eagamloh@ieee.org
IEEE P620	Thermal limit curves for induction machines	EMC	PAR approved Dec. 2018	eagamloh@ieee.org
IEEE P2004	Hardware-in-the-loop testing of electric power apparatus and controls	ESC	PAR approved March 2017	steuerer@caps.fsu.edu
IEEE SCC21	Fuel cells, photovoltaics, dispersed generation, and energy storage	Various		nasiri@uwm.edu
IEEE P2943	Energy efficiency test methods for three-phase variable frequency drive systems	IPCSD/IDCWG	New activity	Kevin_Lee@ieee.org
IEEE P2964	Standard for datasheet parameters and tests for integrated gate drivers	IPCSD/DPTIGD	New activity	tgachovska@yahoo.com
IEEE P114	IEEE Standard test procedure for single-phase induction motors	IPCSD/DPTIGD	New activity	Maher Al-Badri
IEEE P3114	IEEE Standard for Datasheet Parameters and Testing Protocols for Ultraviolet (UV) Light-emitting Diodes (LEDs)	IPCSD/DPTIGD	New activity	tgachovska@yahoo.com

- **IEEE P11: Rotating Electric Machinery for Rail and Road Vehicles**

IEEE-11 is up for revision and update, and a **working group has been set up**. The PAR was officially approved March 2015. The IEEE-11 standard was first developed when the only traction motors were large DC or induction

State of Standards Subcommittees in 2023

- Several IPCSD Technical Committees are active in standards
- IDC, PEDCC, EMC have active ongoing projects and new projects within the year 2022
- IPCC, RSEC, TSC have no new activity within 2022. Several members of these committees are engaged with standard elsewhere., e.g. TSC is involve with standards within TEC, RSEC is involved with SCC
- IPCC standards chair resigned in 2021 and new chair (Prof. Lee Empringham) was appointed. This new leadership is beginning to involve IPCC in stds development
- We are encouraging all TCs to increase their activities.

Thanks



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Report on IPCSD Diversity, Equality and Inclusion Committee

Giovanna Oriti

IPCSD-DEIC Chair

IEEE-IAS IPCSD DEIC (Diversity, Equity and Inclusion Committee)

- Committee newly created in February 2023.
- Kick-off meeting in May 2023
- **Scope:** to promote and enhance DEI [Diversity, Equity and Inclusion] practices within IPCSD and its technical committees. Following the IEEE DEI guidelines, this committee will ensure that IPCSD pursues its technical objectives using the “the talents and perspectives of people with different personal, cultural, and disciplinary backgrounds”.
- Chair appointed by the IPCSD Chair
- One member from each IPCSD TC
- Three Liaisons: Africa, North Africa and South America

IEEE-IAS IPCSD DEIC Members

- Chair – Giovanna Oriti, NPS
- TC Representatives:
 - Xu Yang, Wisk Aero, USA [Electric Machines]
 - Elisabetta Tedeschi, NTNU, Norway/U. of Trento, Italy [Industrial Power Converters]
 - Maria Martinez, U. of Oviedo, Spain [Industrial Drives]
 - Akanksha Singh, DNV, USA [Renewable and Sustainable Energy Conversion Systems]
 - Sara Roggia, magniX, USA [Transportation Systems]
 - Yushan Liu, Beihang Univ., China [Power Electronics Devices and Components]
- Liaisons:
 - Africa: Mhret Behre Gebremariam, U. of Oviedo, Spain
 - North Africa: Donia Ammami, Renault, Tunisia
 - South America: Diana Lopez-Caiza, Univ. Andres Bello, Santiago, Chile

IPCSD DEIC Activities

Launched Student Design Contest (Africa)
<https://site.ieee.org/ias-ipcspd/scdc-africa/>

Design topics

- Components and systems for motor drives.
- Renewable energy power conditioning systems.
- Components and systems for transportation electrification.
- Power electronics for energy efficiency and to reduce fossil fuel consumption.
- Functional apps related to motor/renewable energy/transportation electrification systems.
- IoT devices.
- 3D printings or rapid model.
- Wireless PCB prototypes.

APPLICATION WILL OPEN SOON

Apply to contribute to technological advancement for humanity.

<https://site.ieee.org/ias-ipcspd/>



IEEE IAS-IPCSD Engineering Student Chapter Design Contest (Africa)



**\$2000 each
(three awards)**

Application Deadline: Nov 15
Awards Announcement: Dec 20

CONTACT US

Mhret Berhe
IPCSD-DEIC Liaison for Africa
mhret.berhe@ieee.org

Who can apply

All IEEE Students Members of African Student Chapters.

- Teams: 4 to 6 IEEE student/graduate members, including Team leader.
- At least one student member of the IEEE IAS.
- Woman lead will have preference.
- Diverse team encouraged.
- The design must provide a practical solution and within the scope of the IEEE IAS.



Submission requirements

- Short video (max 5 minutes) and presentation in PDF format.
- A letter of recommendation from IEEE IAS Student Branch Chapter or IEEE Student Branch or IEEE IAS Section Chapter or IEEE Section.

Evaluation criteria

- Innovation and impact on African countries.
- Diversity of the team members.
- Significance of the work to the scope of IAS.
- The quality of the presentation and video.



Other Projects

- Collaboration with the IAS Education Department and the IAS Chapter and Membership Development Department
- Sponsor Africa Liaison's participation to Power Africa conference
- Student Design Contest for global participation
- IAS Mid-Career Awards
- Support South American students
- **Ideas and Suggestions are welcome!**



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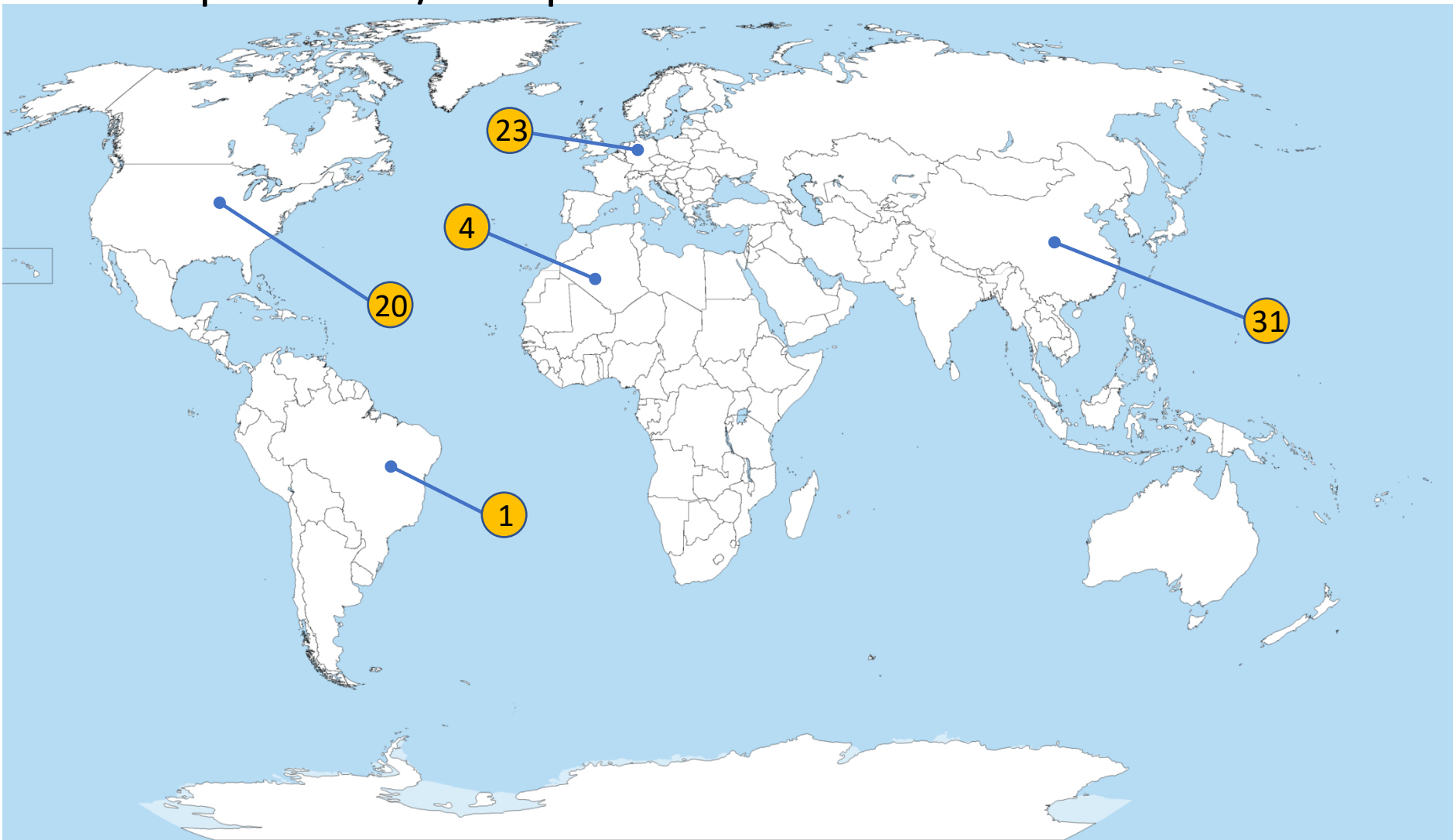


Report on IPCSD Conference Development Committee

Xiaonan Lu

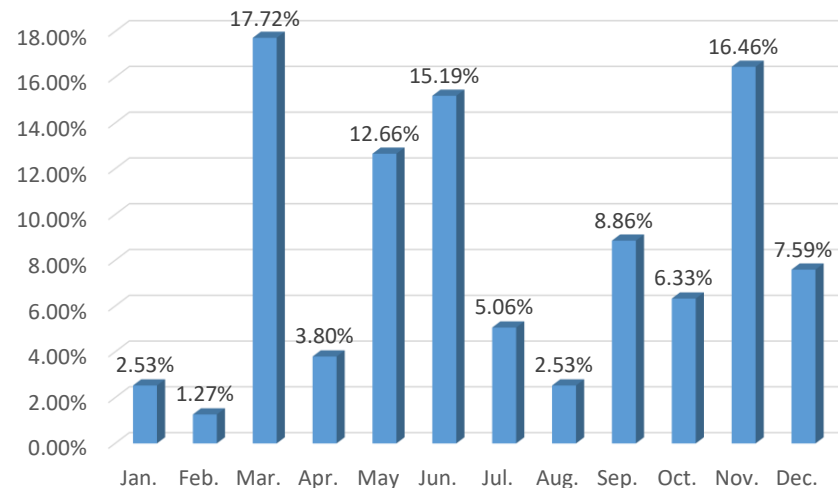
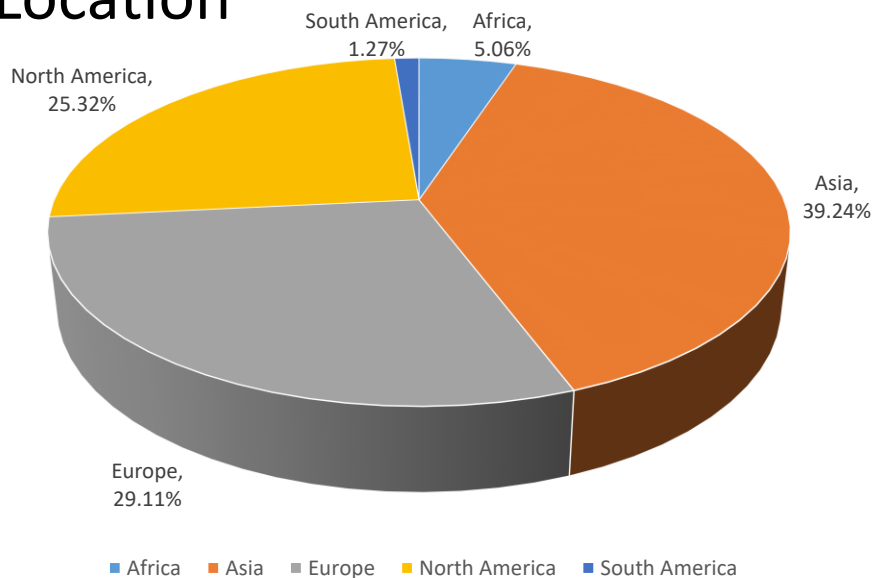
IPCSD-CDC Chair

IPCSD Sponsored / Co-sponsored conferences in last 12 months

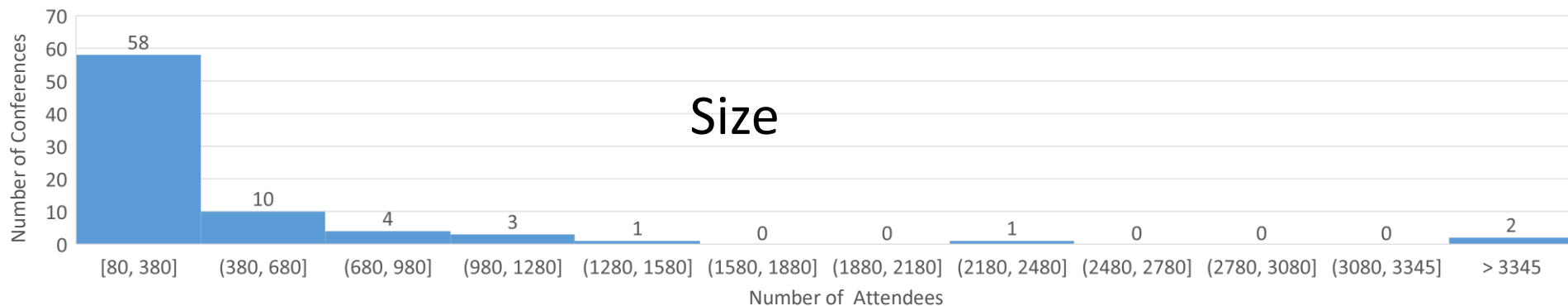


IPCSD Sponsored / Co-sponsored conferences in last 12 months

Location



Dates



#	Conference name	Venue	Region	Date	Attendees
1	2023 IEEE Applied Power Electronics Conference and Exposition (APEC)	Orlando, FL USA	North America	Mar 19, 2023 - Mar 23, 2023	6000
2	2023 5th International Youth Conference on Radio Electronics, Electrical and Power Engineering (REEPE)	Moscow, Russia	Europe	Mar 16, 2023 - Mar 18, 2023	80
3	2023 22nd International Symposium INFOTEH-JAHORINA (INFOTEH)	East Sarajevo, Bosnia and Herzegovina	Europe	Mar 15, 2023 - Mar 17, 2023	200
4	2023 IEEE IAS Electrical Safety Workshop (ESW)	Reno, NV USA	North America	Mar 13, 2023 - Mar 17, 2023	500
5	2023 IEEE IAS Global Conference on Renewable Energy and Hydrogen Technologies (GlobConHT)	Male, Maldives	Asia	Mar 11, 2023 - Mar 12, 2023	1000
6	2023 IEEE Power and Energy Conference at Illinois (PECI)	Champaign, IL USA	North America	Mar 2, 2023 - Mar 3, 2023	150
7	2023 IEEE Texas Power and Energy Conference (TPEC)	College Station, TX USA	North America	Feb 13, 2023 - Feb 14, 2023	200
8	2023 5th Biennial International Conference on Nascent Technologies in Engineering (ICNTE)	Navimumbai, India	Asia	Jan 20, 2023 - Jan 21, 2023	250
9	2023 International Conference on Power Electronics and Energy (ICPEE)	Bhubaneswar, India	Asia	Jan 3, 2023 - Jan 5, 2023	200
10	2022 22nd National Power Systems Conference (NPSC)	New Delhi, India	Asia	Dec 17, 2022 - Dec 19, 2022	250
11	2022 IEEE International Power and Renewable Energy Conference (IPRECON)	Karunagappally, Kollam, India	Asia	Dec 16, 2022 - Dec 18, 2022	300
12	2022 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)	Jaipur, India	Asia	Dec 14, 2022 - Dec 17, 2022	600
13	2022 23rd International Middle East Power Systems Conference (MEPCON)	Cairo, Egypt	Africa	Dec 13, 2022 - Dec 15, 2022	350
14	2022 4th International Conference on Smart Power & Internet Energy Systems (SPIES)	Beijing, China	Asia	Dec 9, 2022 - Dec 12, 2022	100
15	2022 International Conference on Environmental Science and Green Energy (ICESGE)	Shenyang, China	Asia	Dec 9, 2022 - Dec 11, 2022	130
16	2022 25th International Conference on Electrical Machines and Systems (ICEMS)	Chiang Mai, Thailand	Asia	Nov 29, 2022 - Dec 2, 2022	700

#	Conference name	Venue	Region	Date	Attendees
17	2022 12th International Electric Drives Production Conference (EDPC)	Regensburg, Germany	Europe	Nov 29, 2022 - Nov 30, 2022	300
18	2022 4th International Conference on Electrical, Control and Instrumentation Engineering (ICECIE)	Kuala Lumpur, Malaysia	Asia	Nov 26, 2022 - Nov 26, 2022	200
19	2022 6th International Conference on Power and Energy Engineering (ICPEE)	Shanghai, China	Asia	Nov 25, 2022 - Nov 27, 2022	100
20	2022 IEEE 10th Power India International Conference (PIICON)	New Delhi, India	Asia	Nov 25, 2022 - Nov 27, 2022	300
21	2022 IEEE 5th Student Conference on Electric Machines and Systems (SCEMS)	Busan, Korea (South)	Asia	Nov 24, 2022 - Nov 26, 2022	80
22	2022 Second International Conference on Sustainable Mobility Applications, Renewables and Technology (SMART)	Cassino (FR), Italy	Europe	Nov 23, 2022 - Nov 25, 2022	300
23	2022 14th Seminar on Power Electronics and Control (SEPOC)	Santa Maria, Brazil	South America	Nov 12, 2022 - Nov 15, 2022	400
24	2022 4th International Conference on Control Systems, Mathematical Modeling, Automation and Energy Efficiency (SUMMA)	Lipetsk, Russia	Europe	Nov 9, 2022 - Nov 11, 2022	350
25	2022 XIV International Symposium on Industrial Electronics and Applications (INDEL)	Banja Luka, Bosnia and Herzegovina	Europe	Nov 9, 2022 - Nov 11, 2022	100
26	2022 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS)	Greater Noida, India	Asia	Nov 4, 2022 - Nov 5, 2022	800
27	2022 IEEE 3rd China International Youth Conference on Electrical Engineering (CIYCEE)	Wuhan, China	Asia	Nov 3, 2022 - Nov 5, 2022	200
28	2022 IEEE Vehicle Power and Propulsion Conference (VPPC)	Merced, CA USA	North America	Nov 1, 2022 - Nov 4, 2022	320
29	2022 IEEE Transportation Electrification Conference and Expo, Asia-Pacific (ITEC Asia-Pacific)	Haining, China	Asia	Oct 28, 2022 - Oct 31, 2022	540
30	2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON)	Riga, Latvia	Europe	Oct 10, 2022 - Oct 12, 2022	100
31	2022 IEEE Industry Applications Society Annual Meeting (IAS)	Detroit, MI USA	North America	Oct 9, 2022 - Oct 14, 2022	300
32	2022 IEEE Energy Conversion Congress and Exposition (ECCE)	Detroit, MI USA	North America	Oct 9, 2022 - Oct 13, 2022	2200



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



#	Conference name	Venue	Region	Date	Attendees
33	2022 IEEE Industrial Electronics and Applications Conference (IEACon)	Kuala Lumpur, Malaysia	Asia	Oct 3, 2022 - Oct 4, 2022	120
34	2022 IEEE IAS Petroleum and Chemical Industry Technical Conference (PCIC)	Denver, CO USA	North America	Sep 26, 2022 - Sep 29, 2022	1500
35	2022 IEEE 20th International Power Electronics and Motion Control Conference (PEMC)	Brasov, Romania	Europe	Sep 25, 2022 - Sep 28, 2022	200
36	2022 7th International Conference on Power and Renewable Energy (ICPRE)	Shanghai, China	Asia	Sep 23, 2022 - Sep 26, 2022	150
37	2022 IEEE Global Conference on Computing, Power and Communication Technologies (GlobConPT)	New Delhi, India	Asia	Sep 23, 2022 - Sep 25, 2022	500
38	2022 11th International Conference on Renewable Energy Research and Application (ICRERA)	Istanbul, Turkey	Asia	Sep 18, 2022 - Sep 21, 2022	250
39	2022 International Conference on Electrical Machines (ICEM)	Valencia, Spain	Europe	Sep 5, 2022 - Sep 8, 2022	500
40	2022 International Conference on Smart Energy Systems and Technologies (SEST)	Eindhoven, Netherlands	Europe	Sep 5, 2022 - Sep 7, 2022	200
41	2022 IEEE PES/IAS PowerAfrica	Kigali, Rwanda	Africa	Aug 22, 2022 - Aug 26, 2022	300
42	2022 IEEE 2nd International Conference on Sustainable Energy and Future Electric Transportation (SeFeT)	Hyderabad, India	Asia	Aug 4, 2022 - Aug 6, 2022	500
43	2022 Second International Conference on Next Generation Intelligent Systems (ICNGIS)	Kottayam, India	Asia	Jul 29, 2022 - Jul 31, 2022	120
44	2022 IEEE International Future Energy Challenge (IFEC)	TN, USA	North America	Jul 27, 2022 - Jul 29, 2022	80
45	2022 IEEE/IAS Industrial and Commercial Power System Asia (I&CPS Asia)	Shanghai, China	Asia	Jul 8, 2022 - Jul 11, 2022	200
46	2022 8th International Youth Conference on Energy (IYCE)	Eger, Hungary	Europe	Jul 6, 2022 - Jul 9, 2022	110
47	2022 14th International Conference on Electronics, Computers and Artificial Intelligence (ECAI)	Ploiești, Romania	Europe	Jun 30, 2022 - Jul 1, 2022	150
48	2022 IEEE International Conference on Environment and Electrical Engineering and 2022 IEEE Industrial and Commercial Power Systems Europe (EEEIC/ I&CPS Europe)	Prague, Czech Republic	Europe	Jun 28, 2022 - Jul 1, 2022	400

#	Conference name	Venue	Region	Date	Attendees
49	2022 10th International Conference on Smart Grid (icSmartGrid)	Istanbul, Turkey	Asia	Jun 27, 2022 - Jun 29, 2022	150
50	2022 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM)	Sorrento, Italy	Europe	Jun 22, 2022 - Jun 24, 2022	300
51	2022 11th IET International Conference on Power Electronics, Machines and Drives (PEMD)	Newcastle, United Kingdom	Europe	Jun 21, 2022 - Jun 23, 2022	400
52	2022 IEEE/AIAA Transportation Electrification Conference and Electric Aircraft Technologies Symposium (ITEC+EATS)	Anaheim, CA USA	North America	Jun 15, 2022 - Jun 17, 2022	700
53	2022 4th Global Power, Energy and Communication Conference (GPECOM)	Nevsehir, Turkey	Asia	Jun 14, 2022 - Jun 17, 2022	200
54	2022 IEEE 21st Mediterranean Electrotechnical Conference (MELECON)	Palermo, Italy	Europe	Jun 14, 2022 - Jun 16, 2022	200
55	2022 IEEE IAS Pulp and Paper Industry Conference (PPIC)	Niagara Falls, ON Canada	North America	Jun 12, 2022 - Jun 16, 2022	170
56	2022 Joint Conference on Electrostatics (ESA)	Charlotte, NC USA	North America	Jun 12, 2022 - Jun 15, 2022	170
57	2022 Petroleum and Chemical Industry Conference Europe (PCIC Europe)	London, United Kingdom	Europe	Jun 7, 2022 - Jun 9, 2022	250
58	2021 Joint Conference - 11th International Conference on Energy Efficiency in Domestic Appliances and Lighting & 17th International Symposium on the Science and Technology of Lighting (EEDAL/LS:17)	Toulouse, France	Europe	Jun 1, 2022 - Jun 3, 2022	250
59	2022 23rd International Carpathian Control Conference (ICCC)	Sinaia, Romania	Europe	May 29, 2022 - Jun 1, 2022	120
60	2022 IEEE 5th International Electrical and Energy Conference (CIEEC)	Nabjing, China	Asia	May 27, 2022 - May 29, 2022	270
61	2022 International Conference on Development and Application Systems (DAS)	Suceava, Romania	Europe	May 26, 2022 - May 28, 2022	100
62	2022 IEEE 34th International Symposium on Power Semiconductor Devices and ICs (ISPSD)	Vancouver, BC Canada	North America	May 22, 2022 - May 25, 2022	450
63	2022 IEEE IAS Global Conference on Emerging Technologies (GlobConET)	Romania	Europe	May 20, 2022 - May 22, 2022	1000
64	2022 International Conference on Industrial Engineering, Applications and Manufacturing (ICIEAM)	Adler, Sochi, Russia	Europe	May 16, 2022 - May 20, 2022	180

#	Conference name	Venue	Region	Date	Attendees
49	2022 10th International Conference on Smart Grid (icSmartGrid)	Istanbul, Turkey	Asia	Jun 27, 2022 - Jun 29, 2022	150
50	2022 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM)	Sorrento, Italy	Europe	Jun 22, 2022 - Jun 24, 2022	300
51	2022 11th IET International Conference on Power Electronics, Machines and Drives (PEMD)	Newcastle, United Kingdom	Europe	Jun 21, 2022 - Jun 23, 2022	400
52	2022 IEEE/AIAA Transportation Electrification Conference and Electric Aircraft Technologies Symposium (ITEC+EATS)	Anaheim, CA USA	North America	Jun 15, 2022 - Jun 17, 2022	700
53	2022 4th Global Power, Energy and Communication Conference (GPECOM)	Nevsehir, Turkey	Asia	Jun 14, 2022 - Jun 17, 2022	200
54	2022 IEEE 21st Mediterranean Electrotechnical Conference (MELECON)	Palermo, Italy	Europe	Jun 14, 2022 - Jun 16, 2022	200
55	2022 IEEE IAS Pulp and Paper Industry Conference (PPIC)	Niagara Falls, ON Canada	North America	Jun 12, 2022 - Jun 16, 2022	170
56	2022 Joint Conference on Electrostatics (ESA)	Charlotte, NC USA	North America	Jun 12, 2022 - Jun 15, 2022	170
57	2022 Petroleum and Chemical Industry Conference Europe (PCIC Europe)	London, United Kingdom	Europe	Jun 7, 2022 - Jun 9, 2022	250
58	2021 Joint Conference - 11th International Conference on Energy Efficiency in Domestic Appliances and Lighting & 17th International Symposium on the Science and Technology of Lighting (EEDAL/LS:17)	Toulouse, France	Europe	Jun 1, 2022 - Jun 3, 2022	250
59	2022 23rd International Carpathian Control Conference (ICCC)	Sinaia, Romania	Europe	May 29, 2022 - Jun 1, 2022	120
60	2022 IEEE 5th International Electrical and Energy Conference (CIEEC)	Nabjing, China	Asia	May 27, 2022 - May 29, 2022	270
61	2022 International Conference on Development and Application Systems (DAS)	Suceava, Romania	Europe	May 26, 2022 - May 28, 2022	100
62	2022 IEEE 34th International Symposium on Power Semiconductor Devices and ICs (ISPSD)	Vancouver, BC Canada	North America	May 22, 2022 - May 25, 2022	450
63	2022 IEEE IAS Global Conference on Emerging Technologies (GlobConET)	Romania	Europe	May 20, 2022 - May 22, 2022	1000
64	2022 International Conference on Industrial Engineering, Applications and Manufacturing (ICIEAM)	Adler, Sochi, Russia	Europe	May 16, 2022 - May 20, 2022	180

IPCSD Conference Development Committee Report

Next

- Identify opportunities for expansion, e.g.
 - No conferences in Australia
 - Only one in Central-South America

Report IAS Education Department

Pericle Zanchetta

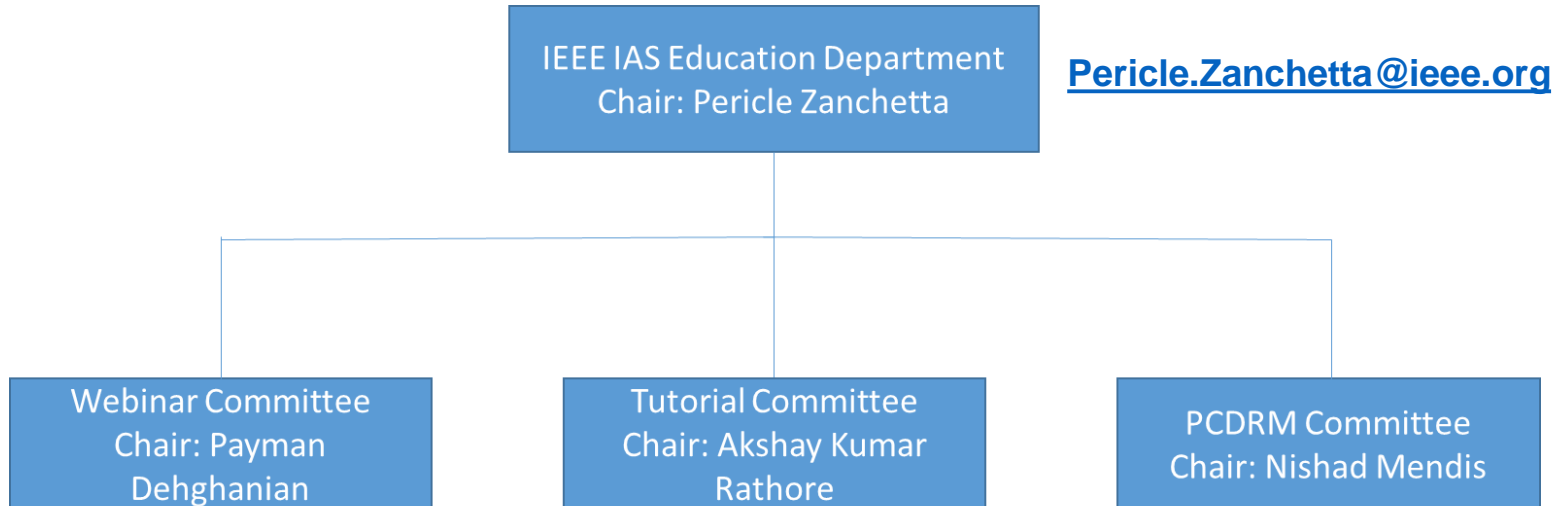
IAS Education Department Chair



Education Department Report - IAS IPCSD Meeting

Pericle Zanchetta
October 29th 2023

Department Structure



- **Looking for volunteers to work in the three committees**
- **There should be at least one representative from each technical department in all committees**
- **Chair term duration the same as for operation departments**

Department activities

PCDRM (Professional and Career Development Resources for Members) Committee

IEEE IAS Global Mentoring Program (GMP) Contest 2023

In line with the proposed IAS five-year strategic plan (2020-2025), the Global Young Professional Mentoring Program (GMP) Contest was developed and endorsed by the IAS Executive Board in 2021.

The GMP contest offers many other benefits to YPs and student members other than mentoring. These include developing public relation(PR) skills, development of management skills, value addition to IAS membership, etc.



IEEE INDUSTRY APPLICATION SOCIETY
GLOBAL MENTORING PROGRAM CONTEST 2023

Incentivize youth
Providing opportunities
Strengthening relationships
Interacting with industry & academia

AWARDS

- 1000 USD, First (1st) place, with certificates for the organizers, travel grant for two people to attend IAS Annual Meeting 2023
(*The travel grant will be subject to IEEE travel regulations and the status of the Covid-19 pandemic in 2023. IAS reserves the right to suspend the travel grant.)
- 750 USD, Second (2nd) place, with certificates for the organizers.
- 500 USD, Third place (3rd), with certificates for the organizers.

CRITICAL DEADLINES

Contest Announcement	-	20 th February 2023
Deadline for Submissions	-	20 th June 2023
Winners Announcement	-	10 th July 2023

REGISTRATION & SUBMISSION <https://bit.ly/IAS-GMP23-RegSub>
MORE EVENT INFORMATION <https://bit.ly/IAS-GMP23-INFO>

FOR ANY FURTHER INQUIRIES, PLEASE CONTACT

 Nikhad Mendis
rasanjana2000@gmail.com

 Sumit Chhabria
sumit.chhabria7@gmail.com



Department activities

PCDRM Committee (Nishad Mendis rasanjana2000@gmail.com)

IEEE IAS Virtual Academy Program

The IEEE IAS Education Department is organizing an “IEEE IAS Virtual Academy Program” which enables interested people to undertake certificate courses.

Many courses required by industry to upskills their existing workforce.

It has started as a trial program, approved at Q4 2022 Ex Board and funded by IAS. Depending on success, it may be extended to not only industrial oriented courses and be self-sustainable.

Courses duration will be between 25 to 30 hours in the space of max 3 months 2/3 hours per weekend. Course content will be developed by liaising with the Experts who are responsible for running these courses. At the end of the training courses, a certificate will be issued by the IEEE IAS virtual academy for the participants who have successfully completed the course.

Call for proposals for possible course subjects



Department activities

Webinar Committee (Payman Dehghanian payman@email.gwu.edu)

IAS Webinar series

In general 1 hour long seminars on subjects in the remit of the society.

The target is to have a minimum of 1 webinar per month:

1. Each technical committee should be proactive in regularly propose tutorials - e.g. to ask recipients of best paper awards (both conference and transactions) to present their work in a webinar
2. Have IAS distinguished lecturers to give at least 1 webinar each per year
3. Advertisement through the new website, Facebook and twitter accounts, Newsletter and email from technical committee chairs to committee members

Department activities

Tutorials Committee (Akshay Kumar Rathore akshay.k.rathore@ieee.org)

3 to 5 hours long tutorials on subjects in the remit of the society

The Tutorial committee invites proposals for Tutorials throughout the year.

Tutorials offer participants from different technical backgrounds the chance to explore innovative trends and learn new techniques from experts in the field. One or more of the following elements are strongly encouraged for the proposal: a) Industry-led or co-hosted lectures; b) Cross-disciplinary topics; c) Interactive and engaging approach. The tutorials are delivered online via an online conferencing tool managed by the IEEE IAS Society.

Interested speakers can propose the tutorial in the following format:

1. Title of the tutorial and the duration
2. Speaker: Name, position, affiliation and short bio or 2 page CV
3. Outline: Define the topics and subtopics
4. Briefly explain why this topic is important for the IAS community and outline the learning outcomes.

Members who missed the live events can review them at the IAS Resource Center <https://resourcecenter.ias.ieee.org/>. More info on planned and past activities can be found at <https://ias.ieee.org/education.html>.

Thank you



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



EMC Report

Greg Heins

EMC Chair

EMC update

1. EMC annual meeting
2. Initiatives
 - Attendance
 - Special Sessions
3. Appendix
 - Standards
 - Publications

EMC annual meeting

IEEE IAS Electric Machines Committee

2023 Committee Meeting
Nashville Tennessee

Room 201 AB, Music City Center
Tuesday the 31st of October, 4:00 pm to 5:30 pm.

Chair: Greg Heins



Agenda

1. Memorial
2. Attendance
3. Review and Approval of 2022 Committee Meeting Minutes
4. Awards
 - a. Member recognitions
 - b. Awards outside the EMC
5. Executive Reports
 - a. Chair : Transactions Papers Status Review
 - b. Vice-Chair : ECCE 2023 Technical Program
6. Subcommittee Reports:
 - a. Prize Paper Awards Presentation
 - b. Standards
7. ECCE Session Chair Reports (2023 ECCE sessions completed as of meeting time)
8. New Business:
 - a. 2023 Officers – EMC Past Chair Nominates Slate of Officers
 - b. Publications Update and IAS Sponsored Conferences
 - c. ECCE 2023 - Update
 - d. ECCE 2023 – Preparation for ECCE 2024
 - e. Other Upcoming Conferences
9. Other Business
10. Adjournment



Initiatives: Attendance

EMC website



New member sign-up

NEW MEMBER SIGN-UP:

1. All attendees registered for this meeting will automatically become EMC members
2. Alternatively, new members can register at list <https://site.ieee.org/ias-emc/member-subscriptions/>

Note: Formally, you must be an IAS member to vote on IAS committee business.



INITIATIVES: SPECIAL SESSIONS

Wednesday

Special Sessions • 10:40AM – 12:20PM				
209C	201A	205C	205A	102A
SS15: Battery Tech vs. Charging Infrastructure: Driving Towards a Sustainable e-mobility Future	SS19: Part 1: Bidirectional Switches are Coming. Are You Ready?	SS13: Part 1: Transient and Dynamic Modeling and Control of Large-Scale, Resilient Distribution Systems with High Penetration of Inverter-based Distributed Energy Resources and Loads	SS14: Part 2: The Role of Power Hardware-in-the-Loop Simulation in the Successful Rollout of New Power Electronics Solutions	SS8: Future of EM Design-Manufacturing Advancements

EMC members are coordinating three special sessions on the future of electric machine design (Manufacturing, Materials, Comutation)

Special Sessions • 2:00PM – 3:40PM				
202A	205C	201A	209B	102A
SS17: Transmission Expansion Planning Models for Offshore Wind Energy in the U.S.	SS13: Part 2: Transient and Dynamic Modeling and Control of Large-Scale, Resilient Distribution Systems with High Penetration of Inverter-based Distributed Energy Resources and Loads	SS19: Part 2: Bidirectional Switches are Coming. Are You Ready?	SS22: Part 1: Challenges and Opportunities for Aviation Electrification and ARPA-E Aviation-class Synergistically Cooled Electric-Motors with Integrated Drives Program (ASCEND)	SS18: Future of Electric Machines Design Materials Advancement

To disseminate the outcomes of these panels more widely, the plan is to summarise the discussion for potential inclusion in an IAS magazine article.

Thursday

Special Sessions • 8:30AM – 10:10AM			
205C	209C	202B	205A
SS5: Future of Electric Machines Design-Computational Advancements	SS6: Part 1: Design Automation for Power Electronics – from Device to Systems Design, Verification and Certification	SS16: Emerging Applications of Inductive Power Transfer Technology	SS24: Part 1: Finger on the Pulse: Sustainable & Robust Data Centers

EMC volunteers are requested to take notes and forward them to Pete Wung (pwung@earthlink.net)



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



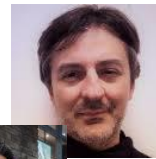
IDC Report

Luca Zarri

IDC Chair

Current IAS-IDC slate of officers

- Luca Zarri, Chair of the IAS Industrial Drives Committee



- Jul-Ki Seok, IDC Vice-chair Papers



- Kevin Lee, IDC Vice-chair Programs



- Di Pan, IDC Secretary



- Mahesh Swamy, Past Chair



New IDC secretary Dr. David Reigosa



- David Reigosa was born in Spain. He received the M.E. and Ph.D. degrees in Electrical Engineering from the University of Oviedo, Gijon, Spain, in 2003 and 2007, respectively.
- Currently a Full Professor with the Electrical Engineering Department of the University of Oviedo, and Director for Sustainable Mobility at the Vice-rectorate for Sustainability, Mobility and Environment of the University of Oviedo.
- Recipient of 9 IEEE Industry Applications Society Conference and IEEE Energy Conversion Congress and Exposition prize paper awards.
- Recipient of the First Price from the Spanish Royal Academy of Engineers for his contributions on “Development temperature and magnetization stated techniques in synchronous machines” in 2019.
- Served in scientific committees and as Vice Chair or Technical Program Chair of several conferences, including ECCE, ICEMS and SLED.
- Senior member of IEEE, member of Industry Application Society and associate editor of IAS Transactions.
- Research interests: electronic power converters and ac drives, machine design, monitoring and diagnostics, and digital signal processing.

Associate Editors (11)

- Davide Barater, University of Parma, Italy
- Prerit Pramod, Nexteer Automotive Corporation, USA
- David Díaz-Reigosa, University of Oviedo, SPAIN
- Dinesh Kumar, Danfoss Drives Global R&D Center, Denmark (new)
- Giacomo Scelba, University of Catania, Italy
- Wei Xu, Huazhong University of Science and Technology (HUST), China
- Pinjia Zhang, Tsinghua University, China
- Arijit Banerjee, University of Illinois at Urbana-Champaign, US
- Peng Han, Ansys Inc, US
- Fabio Immovilli, University of Modena and Reggio Emilia, Italy
- Juan Manuel Guerrero Munoz, University of Oviedo, Spain
- Ramakrishna Raja, Halla mechatronics, USA

Number of original submissions (new papers)

	Number of new submissions
Nov. 2022 – Oct. 2023	76
Papers invited and not submitted yet	18
TOTAL	94

Previous years	Number of new submissions Papers (invited papers)
Jan. 2019-Oct.2020	68 (89)
Oct. 2020-Oct. 2021	95 (111)
Jan. 2022-Oct. 2022	56 (69)
Nov. 2022 – Oct. 2023	76 (94)

**35% rise
(compared to
2022)**

Acceptance rate and days to final decision

Period: Jan. 2023 – Oct. 2023	Num. of papers with a final decision
Accepted papers	24
Rejected papers	34
Total	58

.4	%
Acceptance rate (2023)	41.4%
Acceptance rate (2022)	39.5%
Acceptance rate (2021)	50%
Acceptance rate (2020)	36%

	2023	2022	2021	2020
Days to first decision	74.1	69.2	70	67
Days to final decision	107.0	109.3	105	96

ECCE 2023 Technical Program Committee Members, Electric Drives

Vice-chairs: David Diaz Reigosa, Antonio J. Marques Cardoso, Sara Roggia, Ali Bazzi, Kevin lee

Topic Chairs (14)

- | | |
|-------------------------------------|--------------------|
| ❖ Juan Guerrero | ❖ Maria Martinez |
| ❖ Sandro Rubino | ❖ Marcello Pucci |
| ❖ Roberto Petrella | ❖ Mario Pulvirenti |
| ❖ Giacomo Scelba | ❖ Arshiah Mirza |
| ❖ Di Pan | ❖ Michele Mengoni |
| ❖ Prerit Pramod | ❖ Lei Hao |
| ❖ Ramakrishnan Rajavenkitasubramony | ❖ Luca Vancini |

ECCE 2023 Technical Program Committee Members, Electric Drives

- **Track H: 5 oral sessions, 4 poster sessions.**
- **Two session chairs are assigned to each session.**

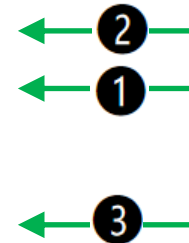
Session Chairs

- | | | |
|---------------------|------------------------|------------------------------|
| ❖ Sneha Narasimhan | ❖ Mohammed Agamy | ❖ Mahesh Swamy |
| ❖ Roberto Petrella | ❖ Michael Harke | ❖ David Diaz Reigosa |
| ❖ Zhe Zhang | ❖ Marcello Pucci | ❖ Antonio J. Marques Cardoso |
| ❖ Raja Ramakrishnan | ❖ Maria Martinez Gomez | ❖ Sara Roggia |
| ❖ Nicola Bianchi | ❖ Nidhi Haryani | ❖ Ali Bazzi |
| ❖ Lei Hao | | |

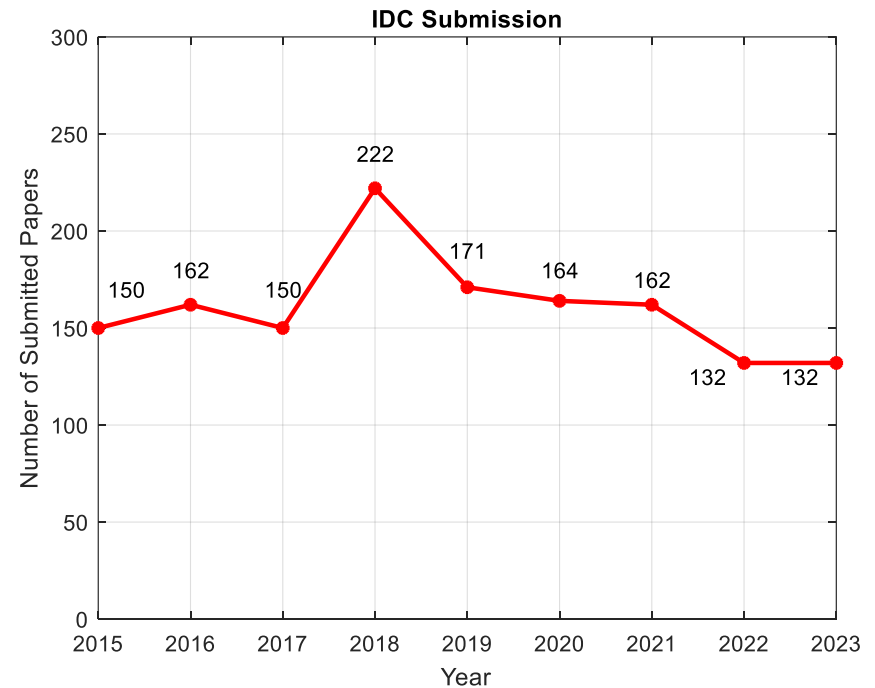
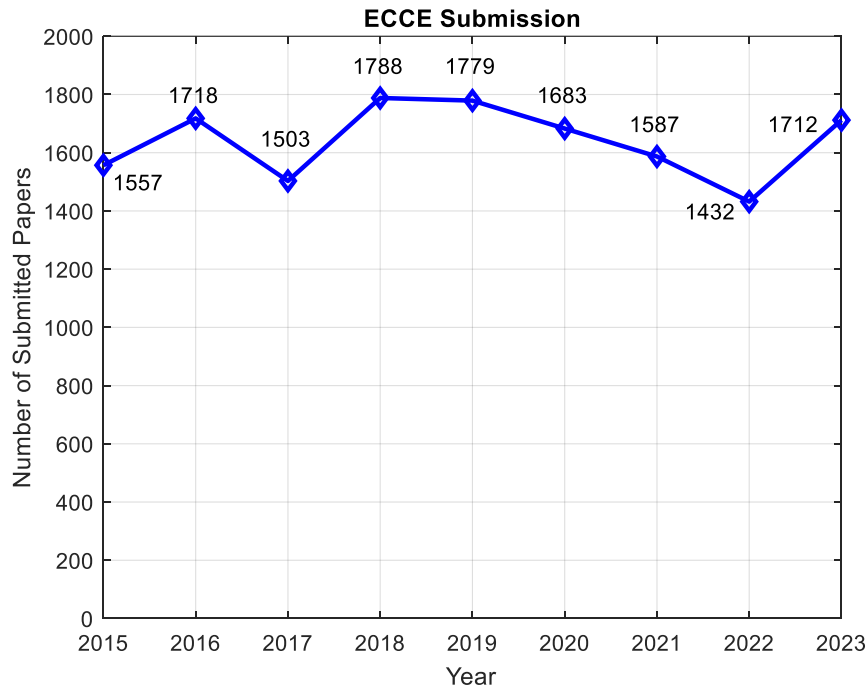
IDC Digest Submissions (132 digests)

Sub-tracks are organized as follows:

1. General Electric Drives		6
2. Induction motor drives		23
3. PM and IPM Motor Drives	39	
4. Control of electric drives		5
5. Sensorless drives	10	
6. Sensors and Transducers		14
7. Diagnostics, Reliability and EMI		1
8. High Speeds and Direct Drives		7
9. Energy Efficient Motor Drives and Standards		9
10. Medium Voltage Drives and High Power Drives	3	
11. New Technologies and Integrated Drives		13
12. Electrical Drives for Aerospace and Traction Applications	2	
13. Electrical Drives for Wind and Other Renewable Integration	0	



Yearly Submission Trends



- 1712 submissions (19.5%)
- 25 special sessions
- 24 tutorial sessions
- 3 sessions to recognize contributions by Professors Fred Lee, Thomas Jahn and Po-Tai Cheng.

Awards Subcommittee

- **María Martínez, University of Oviedo - Spain (Chair)**
- - Prof. Alejandro Gomez Yepes (University of Vigo - Spain)
- - Prof. Gianmario Pellegrino (Politecnico di Torino)
- - Prof. Nicola Bianchi (University of Padova)
- - Dr. Takashi Kato (Nissan Motor Co. Ltd)
- - Dr. Michael Saur (Mercedes-Benz AG)
- - Dr. Hassan Eldeeb (SLPT Automotive)
- - Mrs. Ozge Taskin (Safran Group)
- - Prof. Liliana De Lillo (University of Nottingham)

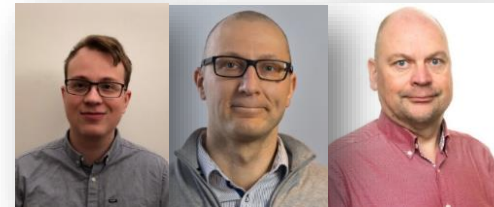


2022 IEEE ECCE Conference Paper Awards

First paper award: Harikrishnan Pookulangara, Pratyush Pandey, Jose Titus and Kamalesh Hatua, "Fault Tolerant Operation of an LCI and VSI-fed Hybrid Induction Machine Drive for Medium Voltage High Power Applications," 2022 IEEE Energy Conversion Congress and Exposition (ECCE), Detroit, MI, USA, 2022, pp. 1-7, doi: 10.1109/ECCE50734.2022.9947770.



Second paper award: Lauri Tiitinen, Marko Hinkkanen, and Lennart Harnefors, "Stable and Passive Observer-Based V/Hz Control for Induction Motors," 2022 IEEE Energy Conversion Congress and Exposition (ECCE), Detroit, MI, USA, 2022, pp. 1-8, doi: 10.1109/ECCE50734.2022.9948057.



Third paper award: Isavella Koukoula, Petros Karamanakos, and Tobias Geyer, "Three-Level Optimized Pulse Patterns With Reduced Common Mode Voltage," 2022 IEEE Energy Conversion Congress and Exposition (ECCE), Detroit, MI, USA, 2022, pp. 1-8, doi: 10.1109/ECCE50734.2022.9948149.



2022 Industrial Drives Committee Transactions Paper Awards

First paper award: Takafumi Hara, Shun Taniguchi, Toshiyuki Ajima, Masanori Sawahata, Masahiro Hori, Takaya Tsukagoshi, and Katsuhiko Hoshino, "Synchronous PWM Control With Carrier Wave Phase Shifts for Permanent Magnet Synchronous Motor," in IEEE Transactions on Industry Applications, vol. 58, no. 5, pp. 5650-5658, Sept.-Oct. 2022, doi: 10.1109/TIA.2022.3187679.



Second paper award: Shuvam Chakraborty and Suman Maiti, "Control of a Waveshaper-MMC With Thyristor-Based Front-End Converter for Open-End Winding Variable Speed Medium-Voltage Induction Motor Drive," in IEEE Transactions on Industry Applications, vol. 58, no. 5, pp. 6203-6216, Sept.-Oct. 2022, doi: 10.1109/TIA.2022.3180041.



Third paper award: Amir Ganjavi, Dinesh Kumar, Firuz Zare, Amin Abbosh, Hansika Rathnayake, and Pooya Davari, "Effect of Choke Placement on Common-Mode Noise in Three-Phase Variable Speed Drives," in IEEE Transactions on Industry Applications, vol. 58, no. 5, pp. 6253-6265, Sept.-Oct. 2022, doi: 10.1109/TIA.2022.317546.



Standards Subcommittee

Chair: Mahesh Swamy, Eaton Research Lab

IEEE IAS P2943 Working Group

“Energy Efficiency Test Methods for Three-Phase Variable Frequency Drive Systems”

Scope of Work:

This standard establishes a testing method for determining energy efficiency of a motor drive system operating at varying load conditions. The standard will cover the drive system with

- The rated system voltage not to exceed 690Vac (line-line).
- Single or multiple drives fed from a common AC to DC rectifier or a DC source.
- All three-phase and multi-phase AC motors including linear motors.
- Ancillary equipment, including input harmonic and/or EMI filters, output filter with long cable lengths, and step-up/down isolation transformer at input or output of drives.

Team Members:

University:

Fernando Briz, Jiangbiao He, Eric Armando, Fang Luo, Zheyu Zhang

Industry:

Kevin Lee, Mahesh Swamy, Lei Hao, Di Pan, Jiangang Hu, Mohamad Koteich, Hassan Eldeen

Project Status

The progress is on track. 60% of the tasks are completed.

Task	Document Section	Task Leader(s)	Completion Date	Status
1	General	Hassan	02/20/2023	Completed
2	System settings	Mahesh	05/22/2023	Completed
3	Test measurements	Fernando, Di	06/26/2023	Completed
4	Testing procedures of system thermal equilibrium	Mahesh, Hassan	06/26/2023	Completed
5	Testing procedures of multi-drive system	Mahesh, Fernando	Oct	
6	Load test schedule	Kevin, Jiangang, Lei, Di	July	Complete
7	Torque offset measurement	Eric, Jiangang, Mohamad	Oct	
8	System sub-System efficiency measurement	Lei Hao, Zheyu, Mohamad, JiangBiao	Nov	
9	Final Review			

Current Problem:

Lack of participants. Normally there are 6-8 people who attend the group meeting. Recently less than 6 people attended the meeting and the monthly group meeting had to be cancelled, twice.

Call for Volunteers

To revitalize our committee and involve the younger members in the IDC activities, we are looking for volunteers for the following aims:

- 1) Promoting activities for student members and young professionals
- 2) Liaison members with different IEEE regions and local IEEE chapters promoting cultural diversity and network building
- 3) IDC representative for the IAS Webinar committee
- 4) IDC Webmaster
- 5) IDC chair of a committee promoting new activities, such as journal special issues



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



IPCC Report

Xiaonan Lu

IPCC Chair

Membership

- Membership roster is at 445 (+12 people since last meeting)
- Membership roster clean-up to make sure that we have up-to-date information for active members (invalid emails updated/removed)

Committee for 2023

Committee Officers

Chairman	Xiaonan Lu	xiaonan.lu@ieee.org
Vice-Chairman	Yongsug Suh	ysuh@jbnu.ac.kr
Secretary	Wenkang Huang	wkhuang@ieee.org
Past Chairman	Luca Solero	luca.solero@uniroma3.it

Industrial Power Converter Subcommittees

Transactions Review Chair	Stefano Bifaretti	stefano.bifaretti@uniroma2.it
Transactions Review Co-Chair	Shafiq Odhano	shafiq.odhano@newcastle.ac.uk
Fellow and Award Nominating Chair	Robert N. Guenther	rnguenther@gmail.com
Standards Chair	Lee Empringham	lee.empringham@nottingham.ac.uk
Special Activity Chair	Elisabetta Tedeschi	elisabetta.tedeschi@ntnu.no
Special Activity Co-Chair	Tianqi Hong	thong@anl.gov
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	Petros Karamanakos	p.karamanakos@ieee.org

★ **Industry members**

ECCE 2023 – Organizing Committee

2023 ORGANIZING COMMITTEE

> General Chair

Brad Lehman
Northeastern University, USA
b.lehman@northeastern.edu

> General Co-Chairs

Joseph Ojo
Tennessee Tech
JOjo@tntech.edu

Jean-Luc Schanen
Univ. Grenoble Alpes
jean-luc.schanen@g2elab.grenoble-inp.fr

Shanelle Foster
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Finance Chairs

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Xiu Yao
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TPC Co-Chairs

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★ **Mahshid Amirabadi**
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Lakehead University
moury.sanjida@gmail.com

Arijit Banerjee
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Henry Chung
City University Hong Kong
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Kris Eberle
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Bulent Sarioglu
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★ **Xu She**
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★ **Zhi (George Gao)**
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Avoki Omekanda
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★ **Iqbal Husain**
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Mazharul Chowdhury
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Sara Roggia
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★ **Leon Tolbert**
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> Publicity/Electronic Media Chairs

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Helen Cui
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> Plenary Session Chairs

★ **Giovanna Orti**
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★ **Dushan Boroyevich**
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★ **Ryan Li**
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★ **Zheyu Zhang**
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Ryan Stanton
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> WIE Chairs:

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★ **Norma Anglani**
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Applied Physics Laboratory
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Sumit Chhabria
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★ > Awards Chairs:

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> Conference Webmasters

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Kristen Parrish
IEEE Power Electronics Magazine
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> IEEE Local Chapter Chairs

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> Conference Management

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Kevin Taylor
IEEE Career Workforce Chair
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Faisal Khan
NREL
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ECCE 2023 – Track E

Power Converter Topologies

Vice Chair: Mahshid Amirabadi, *Northeastern University, United States*

Vice Chair: Khurram Afridi, *Cornell University, USA*

Vice Chair: Dong Cao, *University of Dayton, USA*

★ **Vice Chair:** Wenkang Huang, *Infineon Technologies, USA*

Vice Chair: Hanh-Phuc Le, *University of California San Diego, USA*

Vice Chair: Jin Moon, *FAMU-FSU College of Engineering, USA*

Vice Chair: Yongsug Suh, *Jeonbuk National University, Korea*

★ Winway Chen, *Diodes Incorporated, USA*

★ Tianjiao Liu, *Onsemi, USA*

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

★ Shuilin Tian, *Innoscence Incorporated, USA*

★ Dongbin Hou, *Texas Instruments, USA*

Yonglei Zhang, *China University of Mining and Technology, China*

David Perreault, *Massachusetts Institute of Technology, USA*

★ Ashish Kumar, *Our Next Energy, USA*

★ Saad Pervaiz, *Texas Instruments, USA*

★ Samantha Gunter, *General Motors, USA*

Dehong Xu, *Zhejiang University, China*

★ Gui-jia Su, *Oak Ridge National Laboratory, USA*

★ Yuheng Wu, *John Deere, USA*

Tao Yang, *University of Northampton, United Kingdom*

Xibo Yuan, *University of Bristol, United Kingdom*

Li Zhang, *Huazhong University of Science and Technology, China*

★ Fei Diao, *John Deere, USA*

Yam Siwakoti, *University of Technology Sydney, Australia*

Mahima Gupta, *Portland State University, USA*

- Submitted 188
- Accepted (final) 116
- Percentage 61.7%

Xiaofeng Lyu, *Zhejiang University, China*

Woongkul Lee, *Michigan State University, USA*

★ Renato Torres, *General Motors, USA*

Xin Zan, *University of Maryland, USA*

Kahyun Lee, *Ewha University, Korea*

Zhehui Guo, *Florida State University, USA*

★ Alireza Safaee, *Apple Inc., USA*

Ali Khajehoddin, *University of Alberta, Canada*

Bilal Akin, *University of Texas at Dallas, USA*

Ebrahim Babaei, *University of Tabriz & Near East University, Iran*

Juergen Biela, *ETH Zurich, Switzerland*

Luca Solero, *Roma Tre University, Italy*

Junichi Itoh, *Nagaoka University of Technology, Japan*

Yeonho Jeong, *University of Rhode Island, USA*

Manuel Arias, *University of Oviedo, Spain*

Marco di Benedetto, *Roma Tre University, Italy*

Xiaofeng Yang, *Beijing Jiaotong University, China*

Hua Zhang, *Rowan University, USA*

ECCE 2023 – Track F

Control, Modeling and Optimization of Power Converters

- ★ **Vice Chair:** Pankaj Bhowmik, *Power Engineer, USA*
- Vice Chair:** Pradyumn Chaturvedi, *Visvesvaraya National Institute of Technology, Nagpur, India*
- Vice Chair:** Daniel Costinett, *University of Tennessee Knoxville, USA*
- Vice Chair:** Petros Karamanakos, *Tampere University, Finland*
- ★ **Vice Chair:** Jinia Roy, *GE Research, USA*
- Kevin Bai, *University of Tennessee Knoxville, USA*
- Juan Rodriguez Mendez, *Universidad de Oviedo, Spain*
- Jessica Boles, *University of California Berkeley, USA*
- ★ Mostak Mohammad, *Oak Ridge National Laboratory, USA*
- Hongjie Wang, *Utah State University, USA*
- ★ Ling Jiang, *Analog Devices, Inc., USA*
- Lei Gu, *University of Pennsylvania, USA*
- ★ Vikram Roy Chowdhury, *National Renewable Energy Laboratory, USA*
- ★ Tiancan Pang, *GE, USA*
- Debashish Dash, *VIT-Vellore, India*
- Ehab Shoubaki, *UNC-Charlotte, USA*
- Rahul Jaiswal, *NIT-Delhi, India*
- ★ Binesh Kumar, *Atom Power, USA*
- ★ Abhishek Anand, *CEERI Pilani India, India*
- Mohd Alam, *VNIT Nagpur India, India*
- Snehal Gawande, *YCCE Nagpur India, India*
- Archakam Vijayaraghavulu Giridhar, *NIT Warangal India, India*
- Perumal Parthiban, *NIT Surathkal India, India*
- ★ Amod Umarikar, *IIT Indore India, India*
- Soumya Subhra Nag, *Indian Institute of Technology, Delhi, India*

- Submitted 186
- Accepted (final) 134
- Percentage 72.0%

- ★ Tianqi Hong, *University of Georgia, USA*
- ★ Haryani Nidhi, *Delta Electronic, USA*
- ★ Aswad Adib, *Oak Ridge National Laboratory, USA*
- Xiaofan Cui, *Stanford University, USA*
- Michele Mengoni, *University of Bologna, Italy*
- Ludovico Ortombina, *University of Padova, Italy*
- Elisabetta Tedeschi, *Norwegian University of Science and Technology, Norway*
- Andrea Formentini, *University of Genova, Italy*
- ★ Lennart Harnefors, *ABB Corporate Research, Sweden*
- Alessandro Lidozzi, *ROMA TRE University, Italy*
- Diego Pérez-Estévez, *University of Vigo, Spain*

Special Activities

- **Working Group: Grid Interactive Power Converters**
 - Preliminary step for “testing the water”
 - ECCE 2023 tutorial on **modeling, control and industrial standardization of grid-forming inverters**
 - ECCE 2023 special session on **dynamic modeling and control of grid-interactive power converters**
- **Working Group: Next Steps**
 - Broad impacts within and beyond IPCC
 - Potential outreach with other flagship conferences

Standards

- Dr. Lee Empringham – appointed and engaged in IPCC-related standards activities
- Industry engagement: ITT Goulds Pumps, Sprint Electric, TTPi, Infineon, ST Microelectronics
- IAS-PELS P3380 coordination from IPCC/IPCSD side

Other Activities

- **APEC 2024 Track Chair support from IPCC:** AC-DC converters, devices and components, Control, among others
- **IPCC Transaction Paper Award**
 - L. Tarisciotti, *et al*, “Finite Control Set Model Predictive Control for Dual Active Bridge Converter”
 - F. Lin, *et al*, “Automatic Triple Phase Shift Modulation for DAB Converter with Minimized Power Loss”
 - X. Du, *et al*, “An All silicon Carbide 3 kV/540 V Series-Resonant Converter for Electric Aircraft Systems”
- **ECCE 2022 Paper Award**
 - R. Phukan, *et al*, “Optimized DC-AC EMI Filter Design for Dc-Fed High Speed SiC-Based motor Drive”
 - T. Pereira, *et al*, “Analysis and Design of A Multiport Resonant DC Transformer for Solid-State Transformer Applications”
 - R. Olson, *et al*, “Derivation and Validation of a Common-Mode Model for a Neutral Point Clamped Dual Active Bridge”



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



PEDCC Report

Francesco Iannuzzo

PDECC Chair



IEEE-IAS

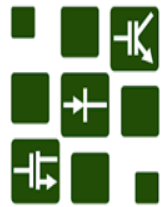
POWER ELECTRONICS
DEVICES AND COMPONENTS
COMMITTEE



IEEE ENERGY CONVERSION CONGRESS & EXPO Nashville, TN | OCT.29-Nov.2

Agenda

1. **PEDCC Introduction – Officers & related issues**
2. **ECCE 2023 Summary Report**
3. **IAS Transactions Report**
4. **Awards Report**
5. **PEDCC Standards**
6. **PEDCC Newsletters & Media**



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PEDCC Introduction

F. Iannuzzo, PEDCC Chair



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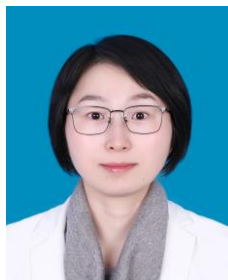
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PEDCC Officers for the 2022-2023 term (1/2)



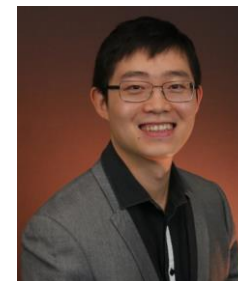
Prof. Francesco Iannuzzo
Aalborg University, Denmark

PEDCC Chair



Assoc. Prof. Yushan Liu
Beihang University, China

PEDCC Vice-Chair



Assist. Prof. Zheyu Zhang
Rensselaer Polytechnic Institute, USA

PEDCC Secretary



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PEDCC Officers for the 2022-2023 term (2/2)



Dr. Zhiqiang (Jack) Wang

PEDCC Transaction Chair



Dr. Enrico Santi

PEDCC Transaction Co-Chair



Dr. Jose Gonzalez

Committee Award Chair

Newly
appointed

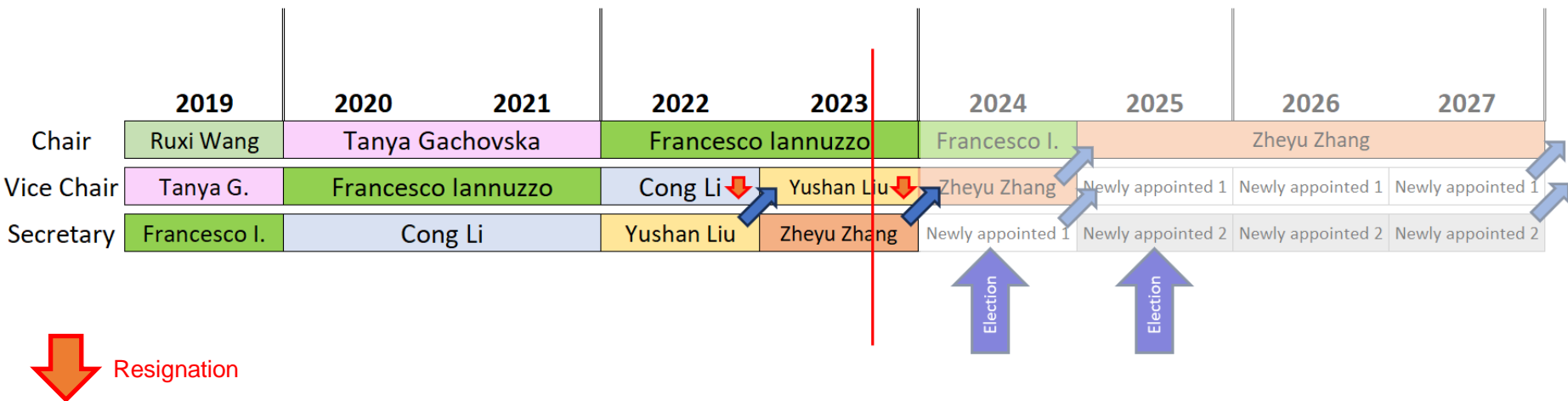


Dr. Tanya Gachovska

Standard Chair



Next term - issues





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ECCE 2023 Summary Report

Francesco Iannuzzo, Topic I Vice Chair



ECCE 2023 Topic 'I'

Power Semiconductor Devices, Passive Components, Packaging, Integration, and Materials

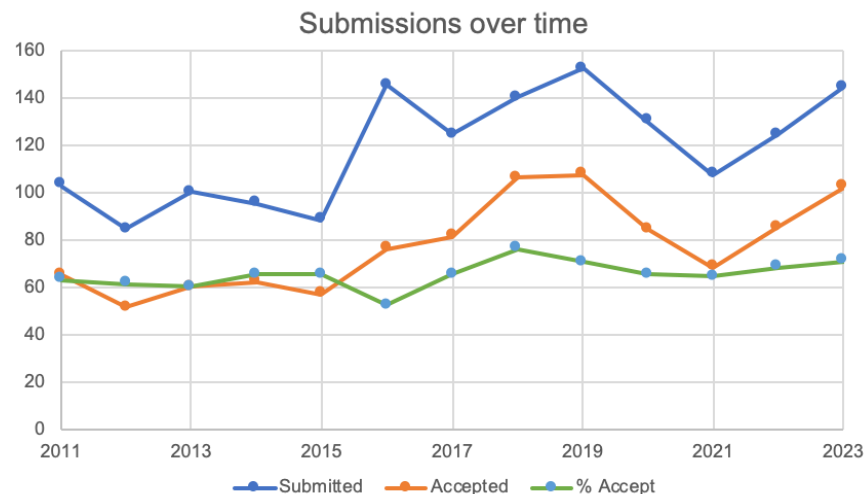
102 accepted, out of 144 digests submitted

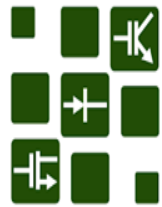
70.8% acceptance – pretty much in line with the last, and close to that in 2019

High-quality review: average 4.5 reviews per paper (min 3), a little bit higher than 4.3 last year

Comparison with prior years

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Submitted	103	84	100	95	88	145	124	140	152	130	107	124	144
Accepted	65	51	60	62	57	76	81	106	107	84	68	85	102
% Accept	63	61	60	65	65	52	65	76	70.4	65	64	68	70.8





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ECCE 2023 Topic 'I'

Vice Chairs

Francesco Iannuzzo, Aalborg University, Denmark

Yushan Liu, Beihang University, China

Jungwon Choi, University of Minnesota, USA

**Thank you so much for the hard
work to all topic chairs and
reviewers!!!**

Topic Chairs

Helen	Cui	University of Tennessee
Thomas	Ebel	South Denmark University
Mona	Ghassemi	University of Texas
Emre	Gurpinar	Sikorski innovations
Andrew	Lemmon	University of Alabama
Jose	Ortiz Gonzalez	University of Warwick
Srivatsa	Ragunath	Infineon
Amy	Romero	Wolfspeed
Adam	Skorek	Université du Québec à Trois-Rivières
Hongfei	Wu	Nanjing University of Aeronautics and Astronautics
Hengzhao	Yang	ShanghaiTech University
Shu	Yang	Zhejiang University
Xiu	Yao	University at Buffalo



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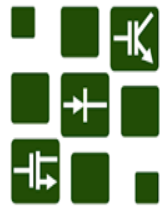
IAS Transactions Report

Zhiqiang (Jack) Wang, PEDCC Transaction Chair



Manuscripts Received (Oct. 2022 ~ Sep. 2023)

Dates	Original Submissions	Revised Submissions	Total Submissions
Oct 2022/Sep 2023	39	28	67
Oct 2021/Sep 2022	22	24	46
Oct 2020/Sep 2021	17	25	42
Oct 2019/Sep 2020	36	22	58
Oct 2018/Sep 2019	28	15	43
Oct 2017/Sep 2018	31	29	60
Oct 2016/Sep 2017	39	25	64
Oct 2015/Sep 2016	29	17	46
Oct 2014/Sep 2015	37	22	59
Oct 2013/Sep 2014	27	19	46
Oct 2012/Sep 2013	16	8	24



Manuscripts Accepted by Country/Region (Oct. 2022 ~ Sep. 2023)

Country/Region	Accept	Reject	Total	Accept Ratio
Belgium	0	1	1	0.00%
Brazil	1	0	1	100.00%
China	5	1	6	83.33%
Denmark	1	0	1	100.00%
Germany	2	1	3	66.67%
India	3	4	7	42.86%
Italy	1	0	1	100.00%
Japan	2	1	3	66.67%
Norway	1	0	1	100.00%
United Kingdom	1	1	2	50.00%
United States	3	3	6	50.00%
Total	20	12	32	62.50%



Associate Editors

Name	Affiliation
Enrico Santi	University of South Carolina, USA
Bruno Allard	INSA Lyon, France
Tanya Gachovska	Solantro Semiconductor, Canada
Francesco Iannuzzo	Aalborg University, Denmark
Cong Li	GE Research, USA
Muhammad Nawaz	Hitachi ABB Power Grids Research, Sweden
Jean-Luc Schanen	Grenoble Alpes University, France
Shuo Wang	University of Florida, USA
Zheyu Zhang	Clemson University, USA
Richard Lukaszewski	Rockwell Automation, USA
Yueshi Guan	Harbin Institute of Technology, China <i>New AE</i>
Zhiqiang (Jack) Wang	Huazhong University of Science and Technology, China



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Awards Report

Zhiqiang (Jack) Wang, PEDCC Transaction Chair

Jose Ortiz Gonzales, PEDCC Award Chair

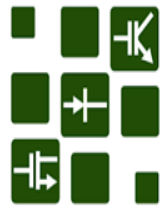


2022 Technical Committee TIA awards (PEDCC)

PEDCC selected **3 papers** to receive the 2022 **Technical Committee TIA awards**, and can nominate **1 paper** as potential candidate for the IAS Transactions awards

Award Nomination Committee:

Name	Affiliation
Tanya Gachovska	Solantro Semiconductor, Canada
Yushan Liu	Beihang University, China
Zheyu Zhang	Rensselaer Polytechnic Institute, USA
Jose Ortiz-Gonzalez	University of Warwick, UK
Zhiqiang (Jack) Wang	Huazhong University of Science and Technology, China



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2022 Technical Committee TIA Awards (PEDCC)

First Prize Paper Award

Shi Pu, Fei Yang, Nathan Zhang,
Bhanu Teja Vankayalapati, and Bilal Akin

University of Texas at Dallas, USA

for the paper

**“A Comparative Study on Reliability and Ruggedness
of Kelvin and Non-Kelvin Packaged SiC MOSFETs”**

IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 3, MAY/JUNE 2022

Second Prize Paper Award

Wenzhao Liu, Dao Zhou, Francesco Iannuzzo,
Michael Hartmann, and Frede Blaabjerg

Aalborg University, Denmark

for the paper

**“Separation and Validation of Bond-Wire and Solder
Layer Failure Modes in IGBT Modules”**

IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 2, MARCH/APRIL 2022

Third Prize Paper Award

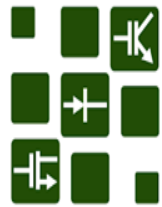
Koji Ori~~ka~~wa, Shotaro Kanno, and Satoshi Ogasawara

Hokkaido University, Japan

for the paper

**“A Winding Structure of Air-Core Planar Inductors for
Reducing High-Frequency Eddy Currents”**

IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 6, NOVEMBER/DECEMBER 2022



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Will Portnoy Award 2023 (PEDCC Best Papers Award)

Award Committee Selection Procedure (New for 2023)

- Step 1** Selection of the best 15 papers based on digest evaluation score.
- Step 2** Assemble the Best Paper Award Review Committee (5 members, composed of both Industry and Academic Experts)
- Step 3** Each member selects their top 5 papers, giving them 5 to 1 points (5, 4, 3, 2, 1 points)
- Step 4** Select the three papers with the maximum number of points



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Will Portnoy Award 2023 (PEDCC Best Papers Award)

- All the 15 shortlisted paper – Very high quality
- High quality submissions in our ECCE track in 2022
- 1st, 2nd and 3rd position – Awards
- **Very relevant** topics to Track I.

Award Committee

Professor Francesco Iannuzzo, University of Aalborg, Denmark

Dr Francisco Freijedo, Huawei Technologies, Nuremberg

Dr Yushan Liu, Beihang University, Beijing, China

Dr Zheyu Zhang, Clemson University, United States

Dr Jose Ortiz Gonzalez, University of Warwick, United Kingdom



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Will Portnoy Award 2023 (PEDCC Best Papers Award)

2023 1st Prize Paper Award

Kohei Horii, Ryuzo Morikawa, Katsuhiro Hata, Kenichi Morokuma, Yukihiko Wada, Yoshiko Obiraki, Yasushige Mukunoki and Makoto Takamiya
University of Tokyo and Mitsubishi Electric Corporation

for the paper

"Sub-0.5 ns Step, 10-bit Time Domain Digital Gate Driver IC for Reducing Radiated EMI and Switching Loss of SiC MOSFETs"

presented at the 2022 IEEE Energy Conversion Congress and Exposition (ECCE)

2023 2nd Prize Paper Award

Yunlei Jiang, Borong Hu, Bo Wen, Yanfeng Shen and Teng Long
University of Cambridge and Danfoss Silicon Power R&D

for the paper

"Methodology for Large-signal Loss Characterization of Ferroelectric Class II MLCC in High-frequency Range"

presented at the 2022 IEEE Energy Conversion Congress and Exposition (ECCE)

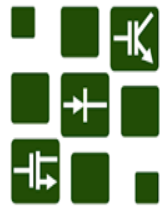
2023 3rd Prize Paper Award

Jun Imaoka, Matsuta Kazuya, Hiroki Ochiai, Koichi Shigematsu, Mostafa Noah and Masayoshi Yamamoto
Nagoya University

for the paper

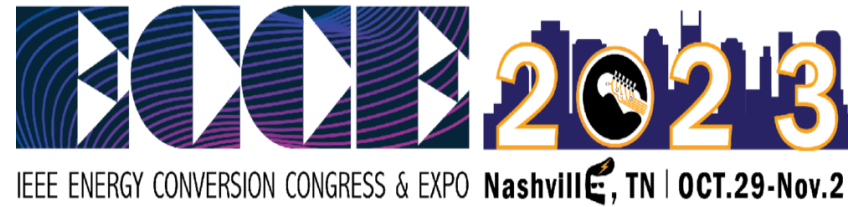
"Feasible Evaluations of Low Profile Magnetic Structure Based on Meander Winding and Split-Magnetic Cores with High-Cooling Capability Used in Power Converters"

presented at the 2022 IEEE Energy Conversion Congress and Exposition (ECCE)



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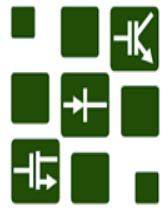
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Kliman Award 2023

- Munaf Rahimo (MTAL, formerly ABB Switzerland) nominated – unfortunately, he didn't get awarded



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PEDCC Standards

Tanya Gachovska, PEDCC Standard Chair



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IEEE IAS PEDCC Standards

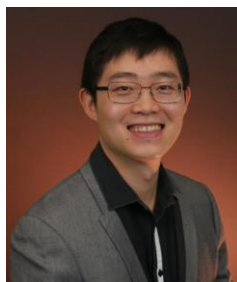
Standard Chair, Dr. Tanya Gachovska; Standard Vice Chair, Dr. Zheyu Zhang

1. P2964 IEEE Standard for Datasheet Parameters and Tests for Integrated Gate Drivers
2. P3114 Standard for Datasheet Parameters and Testing Protocols for Ultraviolet (UV) Light-emitting Diodes (LEDs)



Dr. Tanya Gachovska
Standard Chair

Chairs of Driver and UV LED standards

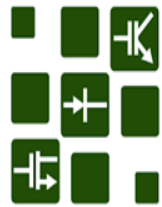


Dr. Zheyu Zhang
Standard Vice Chair

Vice Chair of Driver standard



Dr. Pratibha Sharma
Vice Chair of UV LED standard



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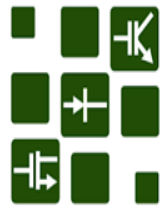
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PEDCC Newsletters & Media

Zheyu Zhang, PEDCC Secretary



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Newsletters

- Starting in June 2022, SIX newsletters have been sent to committee members through emails, and uploaded to the committee website
- Quarterly newsletters will be continuously sent





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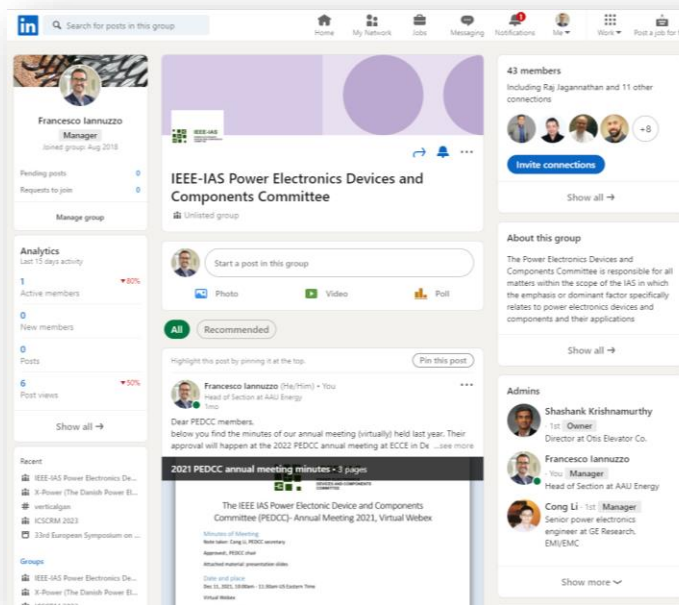
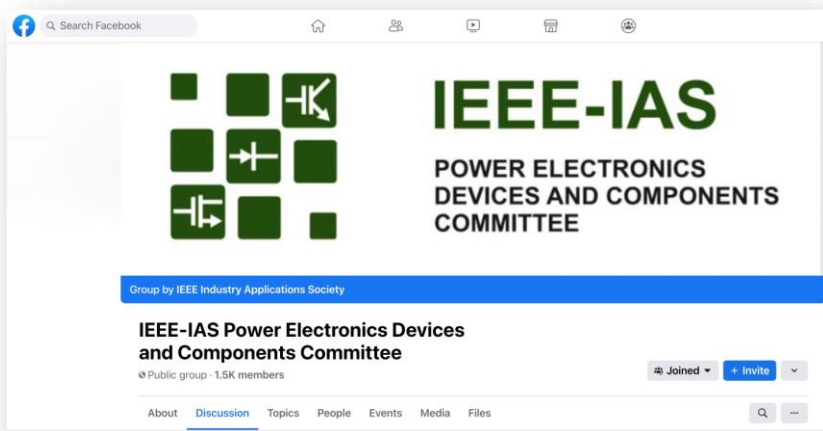


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Social Media

- **Facebook & LinkedIn**

- **Groups -> IEEE-IAS Power Electronics Devices and Components Committee**
- **PEDCC Website & Newsletters**





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Thank you

Francesco Iannuzzo, Aalborg University
fia@energy.aau.dk





IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



RSECS Report

Akshay Rathore

RSECS Chair



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

Annual Meeting

31 October 2023

Chair – Akshay Kumar Rathore, Singapore

Vice Chair and TCPRC – Ke Ma, China

Vice Chair of Conferences – Eduard Muljadi, USA

Secretary – Behrooz Mirafzal, USA

Past Chair – Adel Nasiri, USA

Agenda

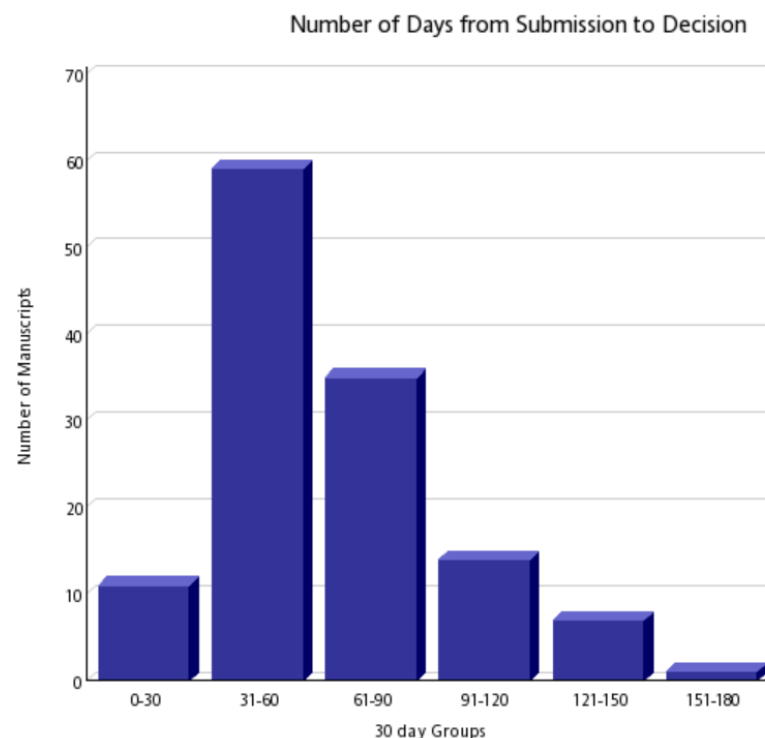
- Call to Order (Akshay Rathore)
- Introduction of the attendees
- Approval of 2022 Meeting Minutes
- Nagamori Award Presentation (Yasushi Nishimura)
- TCPRC Report – Ke Ma
- ECCE Activities 2023 – Eduard Muljadi
- IAS-RSECS Committee Co-Sponsored Conferences – Eduard Muljadi
- RSECS Committee Election of Officers for 2024-2025- Adel Nasiri
- RSECS Prize Paper Awards – Akshay Rathore
- ECCE 2024 Presentation (TBA)
- EOI for ECCE 2024 Topic Chairs and Session Chairs (Behrooz Mirafzal)
- EOI for TIA Associate Editors (Eduard Muljadi)
- AOB
- Adjourn (Akshay Rathore)

Publications Chair Report

- New Manuscripts submission to Renewable and Sustainable Energy Conversion Systems Committee:
 - **64 original + 81 revised = Total 145 (Oct. 2022 to Oct. 2023)**
 - **127 with decisions**
- Average Submission to First Decision Time: **62 days** (65 days last year)



Ke Ma
Shanghai Jiao Tong University, China
Took over since Feb. 2022



RSECS Decision Ratio - 1st submission

Submission to Renewable and Sustainable Energy Conversion Systems Committee

Oct. 2022 to Oct. 2023

(zh) 处理意见	# Manuscripts	Percentage
Reject	23	42.59%
Return to author for mandatory revisions (to address reviewer comments)	31	57.41%
Total:	54	100.00%

Decision for 1st submission papers

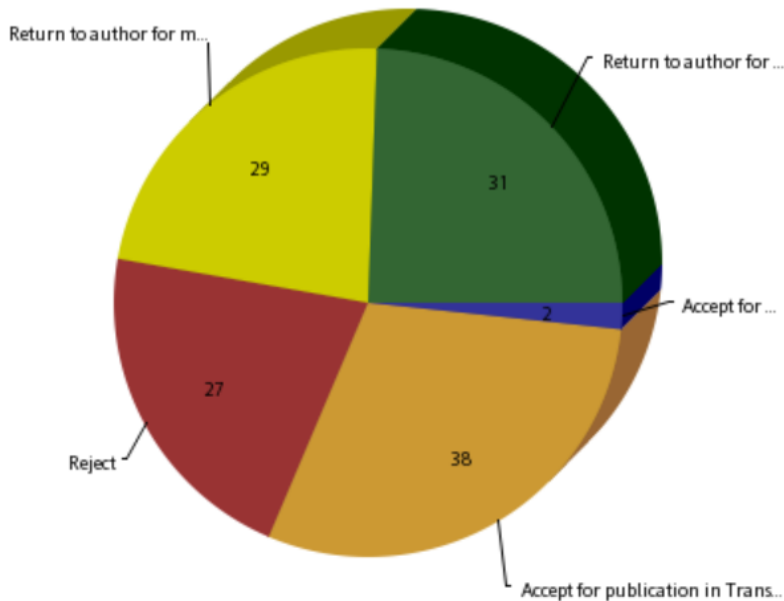
RSECS Decision Ratio – overall

Submission to Renewable and Sustainable Energy Conversion Systems Committee

Decision Ratio By Manuscript Type

(zh) 处理意见

- Accept for publication in Magazine
- Accept for publication in Transactions
- Reject
- Return to author for mandatory revisions
- Return to author for mandatory revisions



Oct. 2022 to Oct. 2023

(zh) 处理意见	# Manuscripts	Percentage
Accept for publication in Magazine	2	1.57%
Accept for publication in Transactions	38	29.92%
Reject	27	21.26%
Return to author for mandatory revisions (rto address reviewer comments)	29	22.83%
Return to author for mandatory revisions (to address reviewer comments)	31	24.41%
Total:	127	100.00%

Decision for original and revised papers

Paper submission statistics by country and month

Country/Region of Submitting Author	# Manuscripts	Percentage
Australia	3	2.1 %
Bangladesh	1	0.7 %
Belgium	3	2.1 %
China	10	6.8 %
Denmark	2	1.4 %
Finland	2	1.4 %
Greece	6	4.1 %
India	62	42.5 %
Italy	4	2.7 %
Japan	1	0.7 %
Korea (the Republic of)	2	1.4 %
Mexico	3	2.1 %
Norway	4	2.7 %
Saudi Arabia	3	2.1 %
Spain	11	7.5 %
Sweden	1	0.7 %
United Arab Emirates	1	0.7 %
United States	24	16.4 %
Viet Nam	3	2.1 %
Summary	146	100.0 %

India 42%, U.S. 16%

Submission Month	# Manuscripts	Percentage
October 2022	7	10.8 %
November 2022	7	10.8 %
December 2022	6	9.2 %
January 2023	4	6.2 %
February 2023	5	7.7 %
March 2023	3	4.6 %
April 2023	4	6.2 %
May 2023	6	9.2 %
June 2023	8	12.3 %
July 2023	3	4.6 %
August 2023	4	6.2 %
September 2023	3	4.6 %
October 2023	5	7.7 %
Summary	65	100.0 %

**1st submission:
Oct.+Nov. 22%, June 12%**

Thanks to Associate Editors under RSECS

- Dinesh Kumar (Denmark) , since 2017
- Yongheng Yang (China), since 2020
- Xiaofeng Yang (China), since 2020
- Satarupa Bal (USA), since 2022
- Dao Zhou (Denmark), since 2022
- Liyan Qu (USA), since 2023

◆ **Call for AEs in the fields of [Microgrid](#), [Renewable energy system](#), [Storage](#).**

ECCE 2023 Technical Program

- ECCE 2023 and TPC meetings are totally back to in-person again.
- 1009 digest submissions, 32% less compared to last year (1472).
- Vice Chairs (VC) and Topic Chairs (TC) serving for the tracks to handle the digests review and sessions design.
- Number of digests per Topic Chair (TC) limited to allow ample time to review the digests and make a decision.
- The program includes 856 papers in 107 oral, 25 poster, 30 remote live Q&A sessions, and 24 Tutorials

2023 ECCE Paper Review

Admin

12 TPCs

Chairs

42 x Vice Chairs (VCs)
(1/2 from IAS + 1/2 from PELS)

Topic Chairs (TCs)

Reviewers

Reviewers

Reviewers

42 Vice Chairs from IAS and PELS

ECCE level

Track Name	Track	Vice Chair	Vice Chair	Vice Chair
◆ Sustainable Energy, Energy Storage and Power-to-X Technologies	A	Eduard Muljadi	Ariya Sangwongwanich	Akanksha Singh
◆ Grid Modernization and Smart Grid	B	Radha Sree Krishna Moorthy	Marius Langwasser	Yuan Li, Gab-Su Seo, Heng Wu
◆ Big Data, Machine Learning, Cyber Security and Design Automation	C	Yenan Chen	Liang Du, Yufei Li	Yicheng Liao
◆ Transportation Electrification Applications	D	Matthias Preindl	Tao Yang	Jin Ye
◆ Power Converter Topologies	E	Mahshid Amirabadi, Khurram Afridi	Dong Cao, Wenkang Huang, Hanh-Phuc Le	Jin Moon, Yongsug Suh
◆ Controls, Modelling and Optimization of Converters	F	Pankaj Bhowmik Pradyumn Chaturvedi	Daniel Costinett, Petros Karamanakos	Jinia Roy
◆ Electrical Machines	G	Giulio De Donato	Rukmi Dutta	Narges Taran
◆ Electric Drives	H	Ali Bazzi, Antonio J. Marques Cardoso	Kevin Lee, David Reigosa	Sara Roggia
◆ Power Semiconductor Devices, Passive Components, Packaging, Integration, and Materials	I	Jungwon Choi	Francesco Iannuzzo	Yushan Liu
◆ Energy Efficient Systems Applications and Lighting Technologies	J	Padmanaban Sanjeevikumar		
◆ Applied Research and Emerging Technologies	K	Qiang Wei	Hua Zhang	
◆ Conflict of Interest	M	Dong Dong		

ECCE 2023 Contributions –Track A

- Track A - Renewable and Sustainable Energy Technologies (IAS RESC contributions)
- IAS-RESC provided 1 Vice Chair [Ke Ma](#) to work with the Topic Chairs:

Subtrack	Topic	Papers submitted
A1	Wind energy applications	16
A2	Solar energy applications	18
A3	Power converters in renewable and sustainable energy application	63
A4	Energy storage and harvesting	27
A5	Hybrid renewable sources	5
A6	Power-to-heat applications	2
A7	Power-to-hydrogen technologies	11
A8	Other topics in renewable and sustainable energy applications	17

ECCE 2023 Contributions – Track A

- 159 papers submitted
- 102 papers were accepted, acceptance rate 64 %
- ECCE 2023 was decided to be in person conference
- All technical sessions were presented in person and some are video-based on demand.
- **Special thanks to our topic and session chairs!**

ECCE 2022 Prize Papers

- **First Prize:** *A Trade-off Between Cost and Efficiency in Solid-State Circuit Breakers.*
Co-authors: Reza Kheirollahi, Xin Zan, Shuyan Zhao, Yao Wang, Hua Zhang, Xiaonan Lu, Al-Thaddeus Avestruz and Fei Lu
- **Second Prize:** *A Comparison of PI-Based and Sorting-Based State of Charge Balancing Methods in Cascaded H-Bridge Converters.*
Co-authors: Gaowen Liang, Ezequiel Rodriguez, Glen Farivar, Naga Brahmendra Yadav Gorla, Neha Beniwal, Josep Pou, and Georgios Konstantinou
- **Third Prize:** *Automated Detection of Failures in Doubly-Fed Induction Generators for Wind Turbine Applications.*
Co-authors: Byambasuren Battulga, Muhammad Faizan Shaikh, Sang Bin Lee, and Mohamed Osama
- **Third Prize:** *Inertia Evaluations on Grid Forming Inverters with Virtual Synchronous Generator Control Applied to Photovoltaic Power Systems.*
Co-authors: Qiang Lin, Tetsu Shijo, Kenichirou Ogawa, Hiroshi Uno, Yasuhiro Kanekiyo, and Junichi Arai

EC Nominations and Elections (2024-2025)

- Chair – Ke Ma (China)
- Vice Chair & TPC – Eduard Muljadi (USA)
- Vice Chair (Conferences) – Behrooz Mirafzal (USA)
- Secretary – Dinesh Kumar, Denmark (Industry, Europe)
- Past Chair – Akshay Kumar Rathore (Singapore)

Dinesh Kumar has been with the Global R&D Center of Danfoss Drives A/S, Denmark, where he is involved in Danfoss sponsored joint research at Aalborg University, Denmark Technical University, Queensland University, Australia and Indian Institute of Technology (IIT) Madras, India. He is a member of the IEC standardization Working Group in TC77A and SyC LVDC.

He is an AE of IEEE Transactions on Industry Applications, IAS DL (2024-25), and contributed as topic chair for the APEC, ECCE, ITEC India and PEDES confs. He is **Treasurer** of the IEEE IAS Danish chapter.

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Third Prize

Subarni Pradhan, Bhim Singh, Bijaya Ketan Panigrahi

“Adaptive Position Observer for Multimode Wind-BES Based
Microgrid Interfaced to Distribution Network”

Second Prize

Reza Emamalipour, John Lam

“Fault-Tolerant Operation of a Multi-Mode Stacked Switch Rectifier Leg through Built-In Circuit Redundancy”

First Prize

Bapi Debnath, R. Kumar

“A Comparative Simulation Study of The Different Variations of PZT Piezoelectric Material by Using A MEMS Vibration Energy Harvester”

Third Prize

Automated Detection of Failures in Doubly-Fed Induction Generators for Wind Turbine Applications. Byambasuren Battulga, Muhammad Faizan Shaikh, Sang Bin Lee, and Mohamed Osama

Inertia Evaluations on Grid Forming Inverters with Virtual Synchronous Generator Control Applied to Photovoltaic Power Systems.

Qiang Lin, Tetsu Shijo, Kenichirou Ogawa, Hiroshi Uno, Yasuhiro Kanekiyo, and Junichi Arai

Second Prize

A Comparison of PI-Based and Sorting-Based State of Charge Balancing Methods in Cascaded H-Bridge Converters.

Gaowen Liang, Ezequiel Rodriguez, Glen Farivar, Naga Brahmendra Yadav Gorla, Neha Beniwal, Josep Pou, and Georgios Konstantinou

First Prize

A Trade-off Between Cost and Efficiency in Solid-State Circuit Breakers

Reza Kheirollahi, Xin Zan, Shuyan Zhao, Yao Wang, Hua Zhang, Xiaonan Lu, Al-Thaddeus Avestruz and Fei Lu



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



TSC Report

Mohammad Anwar

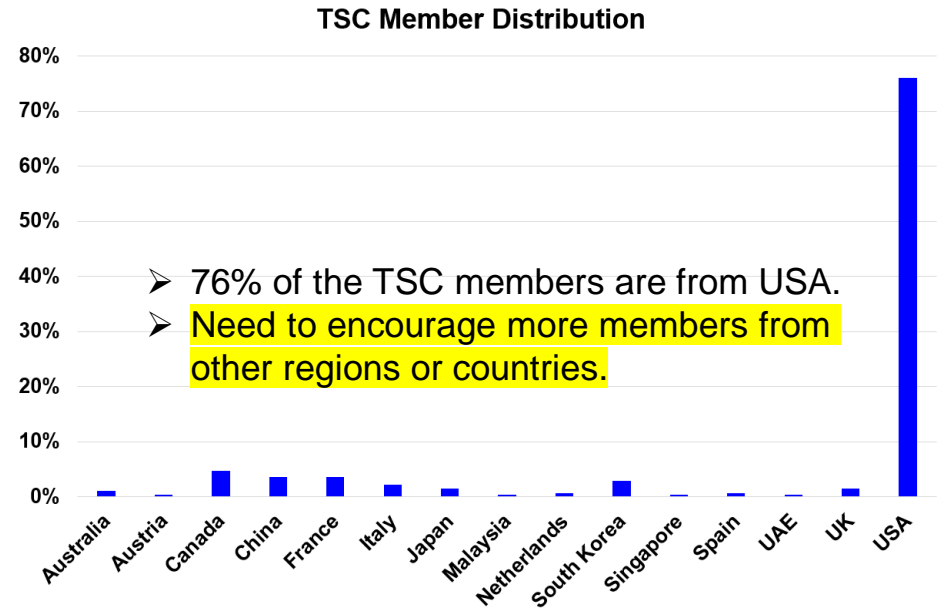
TSC Chair

Committee Membership Updates

- IEEE IAS TSC has an active website at - <http://sites.ieee.org/ias-tcs/>
- Total members as of Sept. 22 2023 is **275** (*increased from 226 members in Dec 2022*).
 - Some members' e-mails may need to be updated as a result of the changes in their affiliations.
 - Please send your updated information's to jiangbiao@ieee.org
 - Include First & Last Name, Affiliation and e-mail address when sending updated details
- If you are interested in being a TSC member, please send your contact information to Dr. JiangBiao He at jiangbiao@ieee.org
- We seek a volunteer to be the webmaster of the TSC website.
- We also seek volunteers to lead the standards subcommittee.

Where are our TSC Members from?

Country	TSC members
Australia	3
Austria	1
Canada	13
China	10
France	10
Italy	6
Japan	4
Malaysia	1
Netherlands	2
Republic of Korea	8
Singapore	1
Spain	2
United Arab Emirates	1
United Kingdom	4
United States	209
* Total number of users subscribed to the list: 275	
* Total number of countries represented: 15	



Regional Liaison Subcommittee Formation for 2023-2025

Regional liaison subcommittee for 2023-2025:

Regional Liaison Subcommittee Officers

- Asia: Prof. Zheng Wang, Southeast University, China
- Australia/Oceania: Prof. Rabiul Islam, University of Wollongong, Australia
- Europe: Prof. Yusuf Yasa, Istanbul Technical University, Turkey
- Africa: **Not filled**
- South America: **Not filled**
- Help increase membership base for TSC

Term Duration

- Two years (January 2023-December 2024)
- After two years a new liaison officer is appointed.
- Next appointment will be in 2025

If you are interested in being liaison officer in the above available positions, please send your info to jiangbiao.he@uky.edu or indicate this in the provided link.

IAS Transaction Paper Review

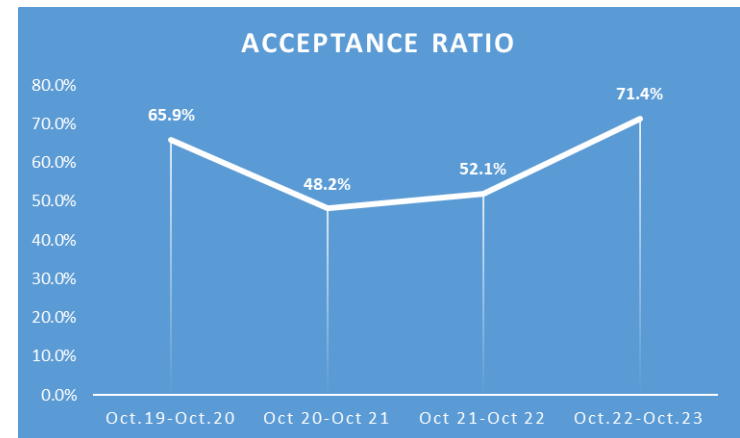
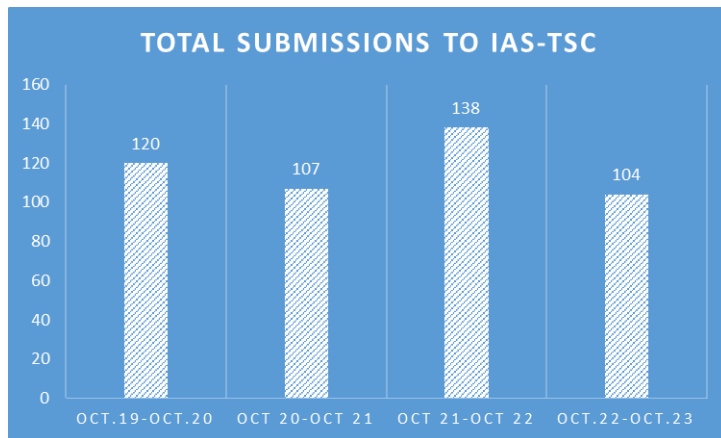
TSC Transaction Paper Submission Process:

- TSC started reviewing papers for IA transactions/magazines since 2012
- First conference policy
- You request for invitation to submit a paper to be considered by TSC
- At least 20% of change is expected with respect to conf. paper. Make it visible!
- Reach out to VC-Papers (john.kisacikoglu@nrel.gov) to request an invitation
- Next year Rakib Islam (rakibulislam2000@gmail.com) will be taking over this role starting 2024

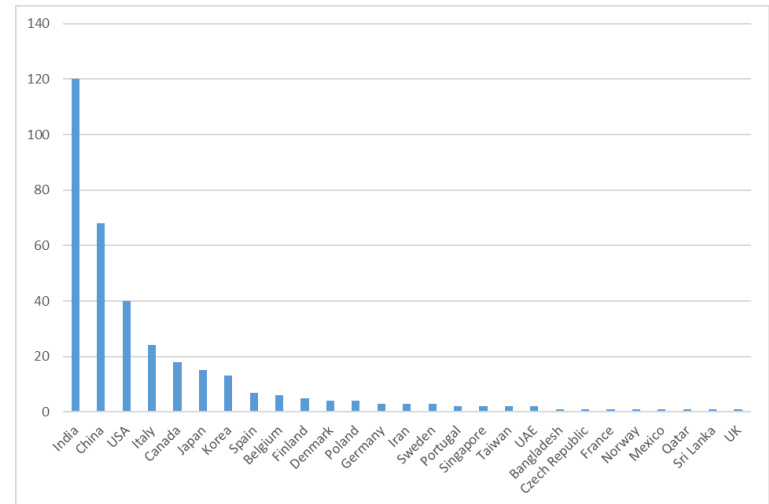
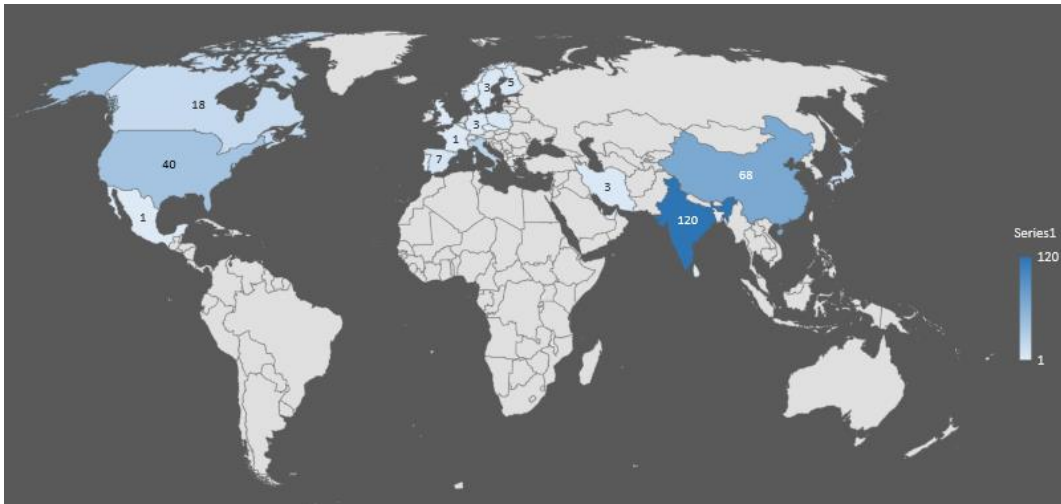
Topic areas for TSC include:

- transportation systems analysis (mobility, routing, etc.)
- power electronics (traction, charging, etc.)
- electric motors for transportation
- grid integration analysis and solutions (low power, high power, wired, wireless, etc.)
- energy storage systems used in transportation (battery, hydrogen and other alternative sources)
- cyber/physical security applications that focus on transportation systems.

Transaction Paper Review: Manuscript Status (Last Four Years)



Transaction Paper Submission per Country (Last Three Years)



TSC ECCE Prize Paper Award - 2023

Award Committee

Chair – Dr. Dong Cao

Vice Chair – Dr. Khorshed Alam

Committee Members:

Name	Affiliation
Dr. Fei Lu	Drexel University
Dr. Anup Anurag	Delta Electronics
Dr. Arshan Khan	CNH Industrial
Dr. Woongkul (Matt) Lee	Michigan State University
Dr. Akm Arafat	Drive System Design



Fei Lu



Anup Anurag



Arshan Khan



Woongkul Lee



Akm Arafat

The award committee evaluated **8 top ranked** digests from ECCE 2022 Track D - Transportation System Applications. Total number of accepted papers under Track D was 55.

TSC ECCE Prize Paper Award - 2023



A High Power Density 3-phase/1-phase Compatible MISN-PFC Converter for On-Board Charger

Wending Zhao
College of Electrical Engineering
Zhejiang University
Hangzhou, China
ZJU-Hangzhou Global Scientific and
Technological Innovation Center
Hangzhou, China
zhaowending@zju.edu.cn

Tianlin Huang
College of Electrical Engineering
Zhejiang University
Hangzhou, China
ZJU-Hangzhou Global Scientific and
Technological Innovation Center
Hangzhou, China
tlh@zju.edu.cn

Xinke Wu
College of Electrical Engineering
Zhejiang University
Hangzhou, China
ZJU-Hangzhou Global Scientific and
Technological Innovation Center
Hangzhou, China
wuxinke@zju.edu.cn

Active Filter Circuit in the HF AC-link of a Bidirectional Wireless Battery Charger for EV

Asier Garcia-Bediaga
Power Electronics Area
Ikerlan Technology Research Centre
Arrasate-Mondragón, Spain
0000-0002-8788-3875

Ander Avila
Power Electronics Area
Ikerlan Technology Research Centre
Arrasate-Mondragón, Spain
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Itziar Alzuguren
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Arrasate-Mondragón, Spain
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Alejandro Rujas
Power Electronics Area
Ikerlan Technology Research Centre
Arrasate-Mondragón, Spain
0000-0002-2005-6816

Miroslav Vasic
Center for Industrial Electronics (CEI)
Technical University of Madrid (UPM)
Madrid, Spain
0000-0001-9597-6409



Impact of Vehicle Requirements on Accessory Power Module Design for Ultium Electric Vehicle Platforms

Ranya Badawi
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Steven Wybo
Engineering Product
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Mehrdad Teimorzadeh
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Mohammad Anwar
Engineering Product
Development
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Warren, MI, United States
mohammad.anwar@gm.com



TSC Transaction Prize Paper Award - 2023

Award Committee

Chair – Dr. Dong Cao

Vice Chair – Dr. Khorshed Alam



Yue Cao



Jin Ye



Mehdi Farasat



Hua Zhang



Subrata Saha



Deepak Ronanki



Woongkul

Committee Members:

Name	Affiliation
Dr. Yue Cao	Oregon State University
Dr. Jin Ye	University of Georgia
Dr. Mehdi Farasat	Louisiana State University
Dr. Hua Zhang	Rowan University
Dr. Subrata Saha	Aisin Corporation
Dr. Deepak Ronanki	Indian Institute of Technology Madras
Dr. Matt Lee	Michigan State University





The award committee evaluated **10 top ranked** published from IEEE Transactions on Industry Applications Transportation System Committee in 2022.

Total number of accepted papers published in Transportation System Committee in 2022 was 22.

TSC Prize Paper Award for IEEE Transactions on Industry Applications - 2022

2400 IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 2, MARCH/APRIL 2022

Noninvasive Aging Analysis of Lithium-Ion Batteries in Extreme Cold Temperatures

Adrian Soto , *Student Member, IEEE*, Alberto Berrueta , *Member, IEEE*, Ignacio Oficialdegui,
Pablo Sanchis , *Senior Member, IEEE*, and Alfredo Ursúa , *Senior Member, IEEE*



IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 2, MARCH/APRIL 2022

Modeling, Simulation, and Characterization of a Supercapacitor in Automotive Applications

Vincenzo Castiglia , Nicola Campagna, *Student Member, IEEE*, Antonino Oscar Di Tommaso ,
Rosario Miceli , *Member, IEEE*, Claudio Nevoloso , Filippo Pellitteri, Christian Puccio, and Fabio Viola 



5248 IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, VOL. 58, NO. 4, JULY/AUGUST 2022

Analytical Derivation of Phase-Current Waveform for Elimination of Torque and Input-Current Ripples of Switched Reluctance Motor Operating Under Magnetic Saturation

Takayuki Kusumi , *Member, IEEE*, Kosuke Kobayashi, Kazuhiro Umetani , *Member, IEEE*,
and Eiji Hiraki , *Member, IEEE*



ECCE 2023 – Transportation Electrification Applications

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

Name	Affiliation
Xiaofeng Yang	Beijing Jiaotong University
Yuhua Du	Northwestern Polytechnical University
Woongkul Lee	Michigan State University
Mehdi Zadeh	NTNU, Norway
Arnaud Gaillard	University of Technology of Belfort-Montbéliard
Ehsan Jamshidpour	University of Lorraine
Catherine Jones	University of Strathclyde
Dianxun Xiao	The Hong Kong University of Science and Technology
Niloofer Torabi	Smart Wires
Lavanya Vadamodala	altair



	Oral	Poster	Withdrawn	Rejected	Total	Acceptance Rate
ECCE2019	25	32	7	23	87	65.50%
ECCE2020	34	33	10	37	114	58.80%
ECCE2021		44	3	21	68	64.70%
ECCE2022	46	9	4	19	78	70.50%
ECCE2023	40	56	3	41	137	70.10%

ECCE 2023 – Transportation Electrification Applications

Session topics:

1. Battery management for Electric Vehicles—(1 session, 5 papers)
2. Wireless Power Transfer I—(2 sessions, 10 papers)
3. Charging for Electric Vehicles—(1 session, 5 papers)
4. Electric Machine for Transportation Electrification—(1 session, 5 papers)
5. Motor Drive for Transportation Applications—(1 session, 5 papers)
6. Power Converters and Motor Drives for Transportation Electrification—(1 session, 5 papers)
7. Solid State Circuit Breaker for Transportation Applications—(1 session, 5 papers)



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



ECCE'23

Brad Lehman (Xiaonan Lu)

General Chair

IEEE ECCE 2023 - Nashville
(Conference record #53617)
Music City Center; October 29- November 2

IEEE ECCE 2023 Summary

Brad Lehman
General Chair

1. General Co- Chairs



▣ Shanelle Foster, Professor
Michigan State



▶ Joseph Ojo, Professor
Tennessee Tech

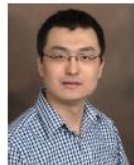


▣ Jean-Luc Schanen, Professor
Univ. Grenoble Alpes, France

2. TPC Co-Chairs



Olorunfemi Ojo
Tennessee Tech University, USA



Xiaonan Lu
Purdue University, USA



Xiongfei Wang
KTH Royal Institute of Technology, Sweden



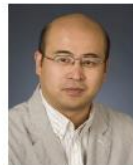
Minjie Chen
Princeton University, USA



Mahshid Amirabadi
Northeastern University, USA



Vandana Rallabandi
Oak Ridge National Laboratory, USA



Jin Wang
Ohio State University, USA



Tanya Gachovska
MDA, Canada

Note for ECCE 2023 organizing committee: ~1/3 industry, ~1/3 women, about 75 members

Overview of ECCE



- **Attendees: (Data for 10/22)**
 - ECCE paid full ~1450 (1250 from ECCE website + ~200 from IAS website (we think))
 - Additional attendees (exhibitors + comp tutorial speakers + ... = 290)
 - Total ~1740
- **Usually 14 parallel sessions** (reduced from 15-18)
- **~1050 paper presentations:**
 - oral presentations (2nd floor)
 - 4 poster sessions (in Exhibit Hall or on Thursday 4th floor)
- **24 industry/applications special sessions** (mostly 2nd floor)
- **Expo hall: *broke all records (10/25 data)***
 - Booths contracted: ~61 booths
 - University Tables Contracted: 8
 - Sponsorships: 16 at various levels (4 x \$10k sponsors, 5 Silver sponsors)
 - Current sales total: ~\$272k compared to total ~\$160k in 2022 (previous record).

**Download
V-fairs
app!!**



A Few ECCE Highlights

► Incredible Keynote Panel:



Dr. Elif Balkas	CTO	Wolfspeed	Silicon Carbide Technology Development: Unlocking Efficiency and Sustainability in Clean Energy
Riona Armesmith	CTO	magnIX	Enabling Innovations of Electrification of Aviation
Dr. Susan Hubbard	Deputy Lab Director S&T	ORNL	Accelerating Technologies to Enable the Grid of the Future
Annette Clayton	CEO and President	Schneider Electric, NA	The Electrification and Digitization of the New Energy Landscape

► All invited to WiE sessions: (preregistration helpful, not required)

- Lunch w/keynote speakers to ask career questions Monday 11am
- PELS WiE Leadership breakfast Wednesday morning

► Luminaries Special Session: Meet pioneers Dr. Fred Lee and Dr. Tom Jahns! (Tuesday, Rm 207/209)

- Arrive early (<5pm) and stay after to meet historic figures in PELS/IAS!

High School Student Outreach

Wind Energy Generator Design Contest

Partnering with Engineering for US All (e4usa), ECCE is thrilled to host its first-ever high school outreach event. We're on a mission to demystify and democratize engineering, inviting students to dive into the captivating world of energy conversion.

Students will have the chance to engage in an exciting wind turbine engineering design challenge using custom kits from KidWind. They'll create their own generators and explore various magnetic materials. High school teachers and students will interact with graduate students, enjoying student demonstrations and lunchtime conversations.

ECCE High School Outreach Event: Wind Energy Generator Design Contest

Monday, October 30 | 8:30AM – 1:30PM

Location: Back of Exhibit Hall B



Many Networking/Social Opportunities

1. Networking Opportunities at Conference

- Use mobile apps to meetup with people
- Utilize coffee breaks to meet people (increased to 30min)
- Attend Women in Engineering Events (open to all)
 - Monday – lunch , Wednesday – IEEE PELS leadership breakfast
- Young Professional
 - (Monday night) social – off-site, IEEE PELS YP mentoring lunch (Tuesday, registration) <https://www.ieee-pels.org/membership/mentorship>
- Wed Night Networking Dinner (Buffet dinner with games + live music).

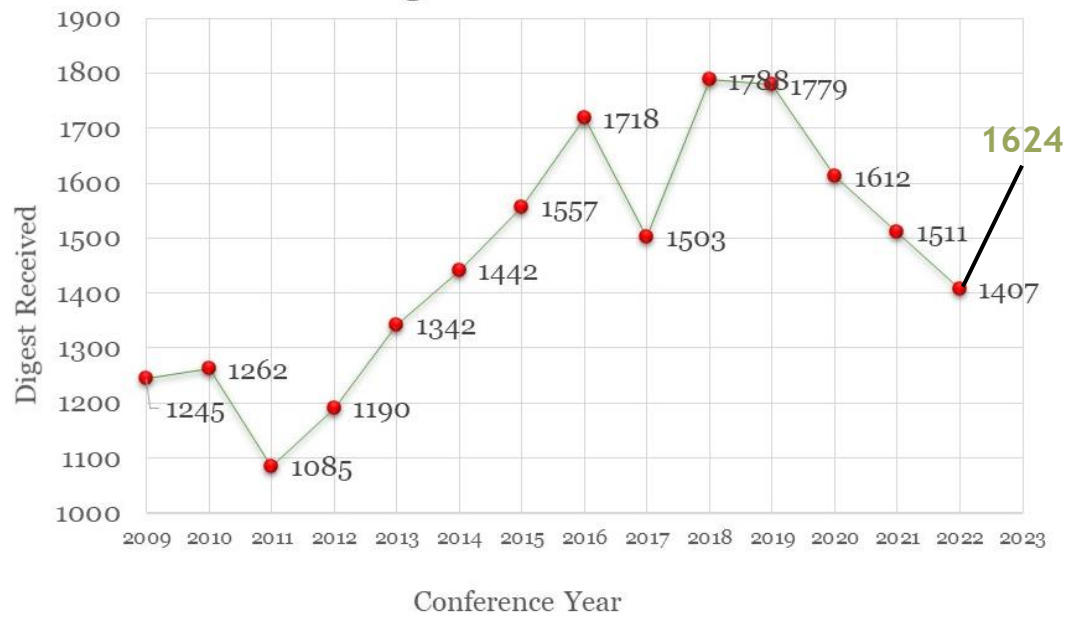


2. Social Events and Activities

- Electric Vehicle Ride & Drive (Tuesday) – on the street
- Tuesday tours (sign up registration desk): Country music Hall of Fame, Radio City Recording Studios (usually tours sell out!!)
- Enjoy Music City Row (1 block from here) where about dozens of bands are playing morning, noon and night.



Digest Submissions



Includes 46 journal to conference papers

“Paper” summary

	Withdrawn	Final	Rejected	Grand Total
Regular	114	981	425	1520
Journal	4	42		46
Late Breaking	5	27	26	58
Grand Total	123	1050	480	1624

Papers:

- Accepted (71%), Withdrawn (7.5%) = 64% published
- 2 page late breaking papers 3.7% of submissions and 2.7% of final program presentations.

Journal to Conference:

- Accepted (100%), Withdrawn (8.7%)
- Represent 4% of the presentations.

Tutorials

#Submission	Main Topics	#Accepted	Remarks
46 - 1,5 hour: 10 - 3 hours: 36 15 from industry 3 from government agencies 28 from academia	Motor and Drives: 11 Components: 10 Converter Design: 7 Grid: 7 Applications: 5 Control: 4 Batteries: 2	24 - 1,5 hour: 6 - 3 hours: 18 6 from industry 2 from government agencies 16 from academia	- Sunday: 22 Tutorials - 1,5 hour: 4 - 3 hours: 18 - Thursday: 2 free closing tutorials (1,5 hour)

Special Sessions

#Submission	Main Topics	#Accepted	Remarks
30 + New Category Submissions New Category Submissions Individual Presentations -3 Industry Focused Presentation - 3 8 from industry 3 from academia 19 mixed	Grid : 8 Wide band gap Devices :4 Applications: 5 Motor and Drives: 6 Converter Design: 4 Batteries:1 Misc (Company Advertising) : 2	24 5 from industry 2 from academia 17 mixed	- Other Additional Sessions - 2 Award Sessions - 1 PELS EBL Session - The newly introduced category of individual and industry presentation was well received
2 Luminaries Special Sessions			- Fred Lee - Tom Jahns
Post Journal special sessions: 46 submitted - 46 Accepted			- Included in the Technical Program

□ Finances

REVENUE	Orig Projected	10/25/2023	Updated Projected
Registration Fees	\$823,185.00	\$893,190.00	\$937,849.50
Paper Fees	\$107,100.00	117600	117600
Tutorials + 1 Day registration	\$80,860	38,400	40320
Exhibits	\$101,250	\$180,350.00	\$180,350.00
Sponsorship	\$45,000	\$91,250.00	91000
Social Event	\$0		
IAS Annual meeting	\$35,000	45,000	45000
All Other Receipts	\$84,390		85000
TOTAL INCOME	\$1,276,785	\$ 1,365,790	\$ 1,497,120
Conference Loans	\$100,000	\$ 100,000	\$ 100,000
Total Receipts	\$1,376,785	\$ 1,465,790	\$ 1,597,120

Projections from 10/25 data

- ~\$1.42M expenses. (Record high - inflation on labor + F&B)
 - On 10/25, we have ~3% net revenue
 - Best guess projection on 10/25 is 10% ~13% net revenue.
- Late registrations unpredictable in post-covid era.



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



ECCE'24

Rolando Burgos

General Chair



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Nomination of ECCE'26 GC

Fernando Briz

IPCSD Chair

GC ECCE'26

Michael Harke, Ph.D.
Senior Technical Fellow, Systems Engineering
Collins Aerospace
Rockford, IL



Work Experience

- ▶ Collins Aerospace
 - Senior Technical Fellow, Systems Engineering, Oct. 2022 – Present
 - Associate Director, Systems Engineering, Feb. 2022 – Oct. 2022
 - Senior Principal Engineer, Systems Engineering, Apr. 2018 – Feb. 2022
 - Staff Engineer, Systems Engineering, July 2013 – Apr. 2018
- ▶ Danfoss Drives
 - Staff Engineer, Control Engineering, June 2010 – June 2013
- ▶ Hamilton Sundstrand (now a part of Collins Aerospace)
 - Staff Engineer, Applied Research, Dec. 2006 – June 2010

GC ECCE'26

ECCE / IAS Annual Meeting Service

- ▶ IAS Industrial Representative at ECCE Steering Committee (since 2022)
- ▶ Session Organizer, IEEE-Industry Applications Society Conference 2008
- ▶ Technical Program Topic Chair
 - IEEE-ECCE 2009, San Jose, CA
 - IEEE-ECCE 2023, Nashville, TN
 - IEEE-ECCE 2019, Baltimore, MD
 - IEEE-ECCE 2020, ~~Detroit, MI~~ Virtual
- ▶ Technical Program Vice-Chair
 - IEEE-ECCE 2010, Atlanta, GA
 - IEEE-ECCE 2011, Phoenix, AZ
 - IEEE-ECCE 2012, Raleigh, NC
- ▶ Technical Program Co-Chair,
 - IEEE-ECCE 2013, Denver, CO
 - IEEE-ECCE 2021, ~~Vancouver, BC~~ Virtual

IEEE Service

- ▶ Officer, IEEE-IAS Industrial Drives Committee, 2010-2019
 - Secretary, Vice-Chair Programs, Vice-Chair Papers, Chair, Past-Chair
- ▶ Associate Editor, IEEE Transaction on Industrial Applications, 2008-2014
- ▶ Guest Associate Editor, IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020.
- ▶ IEEE Sensors Council, IAS Representative, 2018-2021
- ▶ Technical Program Committee, Steering Committee for IEEE-SLED 2018, 2019
- ▶ Reviewer for IEEE-ECCE & IAS Conferences.

Nomination of IPCSD Vice Chair

Pericle Zanchetta

IPCSD Past-Chair

Prof. Luca Zarri

Department of Electrical, Electronic and Information Engineering “G. Marconi”

University of Bologna, Italy

IAS Industrial Drives Committee Chair



Early years

- In 1989, Luca Zarri co-founded a team of videogame programmers for micro and personal computers, which collaborated with national and international software houses from 1990 to 1992.
- Dr. Zarri received the MSc degree (with honours) in Electrical Engineering (5 years) from the University of Bologna, Italy, in 1998 (he served in the army in 1996), and since 1999 he has been a registered professional engineer in Italy. Then, he received a PhD degree in Electrical Engineering (3 years) from the same institution.
- In 1999, he joined a municipal enterprise (Bologna Metropolitan Holding Company) as a designer of electrical and mechanical plants in public contracts of remarkable size (new Faculty of Engineering in Bologna, the new Museum of Modern Art, the cogeneration plant of the Fair District, the new Faculty of Chemistry and Astronomy, the new Department of Arts of the University of Bologna).
- In 2005, he joined the Department of Electrical Engineering as an Assistant Professor of power electronics, electric machines, and drives. He was an associate professor from 2014 to 2020, and he has been a full professor since 2020.
- Since 2005, Dr. Zarri has been involved as principal investigator or coinvestigator in several research contracts with private companies or national research projects, generally concerning problems of power electronics and control of electric drives.

RESEARCH FIELDS:

- Design, control and applications of direct ac-ac matrix converters
- Design, control, and applications of multiphase electric drives
- Optimized modulation strategies for conventional three-phase voltage source inverters and multilevel converters
- High-speed electric drives based on induction machines and wounded-rotor synchronous machines
- Online monitoring and fault detection techniques for electric drives (recently with machine learning and AI)
- Control and design of tubular actuators for positioning systems
- Sensorless and adaptive control for electric drives

METRICS

Scopus: 170 papers, 4040 citations, h-index 30, 30% documents in the top 25% most cited documents worldwide

Google Scholar: 190 papers, 5448 citations, h-index 36

Awards: 5 best paper awards in IEEE conferences

POSITIONS IN IEEE CONFERENCES OR JOURNALS

Guest AE for TPEL/TIA or JESTPE special issues: 3

Guest EiC for JESTPE: 1

IAS representative for JESTPE

Special session organizer: 2

Topic Chair: I've lost count, but probably > 10

Member of organizing committees: 7

Treasurer : 1

Tutorial Chair: 1

Special Session Chair: 2

Award Chair: for IDC in 2014-2015, and member of the awards committee of IECON 2012 and ICEM 2016.

Publication Chair in conferences: 3

Vice Chair for ECCE: 3 (Track F in 2014, Track H in 2018-2019)

Technical Program Chair: 6 (ICEM 2016, SDEMPED 2017, ICEM 2018, IEMDC 2019, ICEM 2020, ECCE 2021)

Other business

Fernando Briz

IPCSD Chair

IAS website

- Work on TCs websites planned to start after ECCE
- IPCSD Webmaster Anant Singh will coordinate
- TCs advised to define who will interact with Anan/Luca Solero (short response time required)
- TCs pictures in the new website
are you happy?



TCs initiatives

- JESTPE Special Issues proposals
- Webinars (IAS Education Department)
- 50% budget project proposals (only EMC used this in 2022)



IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



Motion to Adjourn

Fernando Briz

IPCSD Chair