

IPCSD Annual Meeting

Editorial+Department

Luca Solero, IPCSD Chair
Luca Zarri, IPCSD Vice-Chair

Sunday, October 20, 2024
(3:30 – 6:00 pm)

IPCSD Staff Committees

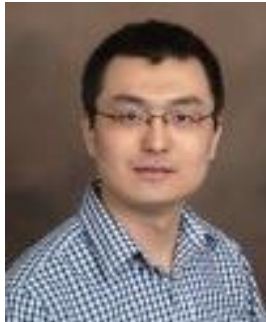
Awards Chair:
Robert Guenther



Standards
Chair: Emmanuel
Agamloh



Conference
Development
Chair: Xiaonan Lu



Diversity, Equity
and Inclusion
Chair: Giovanna
Oriti



Agenda 1/2

- ✓ Welcome and Meeting Opening (Luca Solero, IPCSD Chair)
- ✓ Welcome from the IAS President (Andy Knight, IAS President)
- ✓ Report IPCSD – DEI Comm. (Giovanna Oriti, IPCSD-DEIC Chair)
- ✓ Report IPCSD Standards Comm. (Emmanuel Agamloh, IPCSD Standards Chair)
- ✓ Report IPCSD Awards Comm. (Luca Solero on behalf of Bob Guenther, IPCSD Awards Chair)
- ✓ Report IPCSD Conference Development Comm. (Xiaonan Lu, IPCSD-Conf. Dev. Chair)
- ✓ IAS Educations Dept. (Pericle Zanchetta, IAS Education Dept. Chair)
- ✓ Editorial Activities
 - IAS Publications Activity Report (Leon Tolbert, IAS Publications Dept. Chair)
 - Open Journal of Industry Applications (Pericle Zanchetta, Editor in Chief)
 - Red Flag Papers' Report + ECCE and TIA editorial initiatives and awards (Luca Zarri, IPCSD Vice-Chair, Fernando Briz, IPCSD Past Chair/JESTPE Deputy Editor-in-Chief)
- ✓ IPCSD key updates (Luca Solero)

Agenda 2/2

- ✓ Key updates of technical committees (standards, websites, editorial, papers & conferences, other)
 - EMC (Rukmi Dutta, EMC Chair)
 - IDC (Jul-Ki Seok, IDC Chair)
 - IPCC (Yongsug Suh, IPCC Chair)
 - PEDCC (Francesco Iannuzzo, PEDCC Chair)
 - RESC (Ke Ma, RESC Chair)
 - TSC (John Kisacikoglu, TSC Chair)
- ✓ ECCE 2024 Update (Rolando Burgos, ECCE 2024 General Chair)
- ✓ ECCE 2025 Update (Iqbal Husain, ECCE 2025 General Chair)
- ✓ 2025 IAS Annual Meeting Update (Luca Solero on behalf of Avoki Omekanda, 2025 IAS AM General Chair)
- ✓ Closing remarks & Motion to adjourn (Luca Solero, IPCSD Chair)

Welcome from IAS President

Andy Knight

IAS President

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

Giovanna Oriti

DEIC Chair

IEEE-IAS IPCSD DEIC

- ▶ Committee 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
- ▶ Liaisons: Africa, India, South America, Europe

IEEE-IAS IPCSD DEIC Members

- Chair – Giovanna Oriti, Naval Postgraduate School, USA
- Technical Committees Representatives:
 - Xu Yang, Key Drives LLC, 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]
 - Majid Fard, GE Aerospace, USA [Transportation Systems]
 - Pratibha Sharma, COFAN/Violumas, Canada [Power Electronics Devices and Components]

IEEE-IAS IPCSD DEIC Members

Liaisons

- **Africa**: Mhret Behre Gebremariam, University of Oviedo, Spain
- **India**: Arnab Sarkar, Jaguar Land Rover, India
- **South America**:
 - Thiago Fonseca Rech, Universidade Federal de Santa Catarina, Brazil
 - Mariana (Mary) Espinola, Universidade Federal de Mato Grosso do Sul, Brazil
- **Europe**: Giulia Di Nezio, Universita' Roma Tre, Italy

IPCSD DEIC Activities to Date

Increasing the number of all under-represented members active within IAS-IPCSD:

- Student Design Contests in Africa, India and South America
 - In 2025 we will explicitly ask the participants to include a few words to highlight diversity in the required team description
- Travel grants
- Support for Liaisons to attend local conferences and advertise IAS IPCSD
- Collaboration with the IAS Education Department and the IAS Chapter and Membership Development Department

Student Design Contests 2024

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.



IEEE IAS-IPCS D Engineering Student Chapter Design Contest (Africa) 2024



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.

APPLY NOW

Apply to contribute to technological advancement for humanity.

<https://site.ieee.org/ias-ipcsc/scdc-africa/>

Application Deadline: Aug 1, 2024
Awards Announcement: Sept 1

CONTACT US IPCSD-DEIC Liaison for Africa
iasipcsc.competition@gmail.com



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.

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.



IEEE IAS-IPCS D Engineering Student Chapter Design Contest (India) 2024



Who can apply

All IEEE Student Members of Indian 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.

APPLY NOW

Apply to contribute to technological advancement for humanity.

<https://site.ieee.org/ias-ipcsc/scdc-india/>

Application Deadline: Aug 1, 2024
Awards Announcement: Sept 1

CONTACT US IPCSD-DEIC Liaison for India
iasipcsc.indiacomp@gmail.com



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 Indian regions.
- Diversity of the team members.
- Significance of the work to the scope of IAS.
- The quality of the presentation and video.

<https://site.ieee.org/ias-ipcsc/scdc-africa/>

<https://site.ieee.org/ias-ipcsc/scdc-india/>

Student Contest Winners (India)

- Winners of the 2024 IPCSD Student Chapter Design Contest for India:

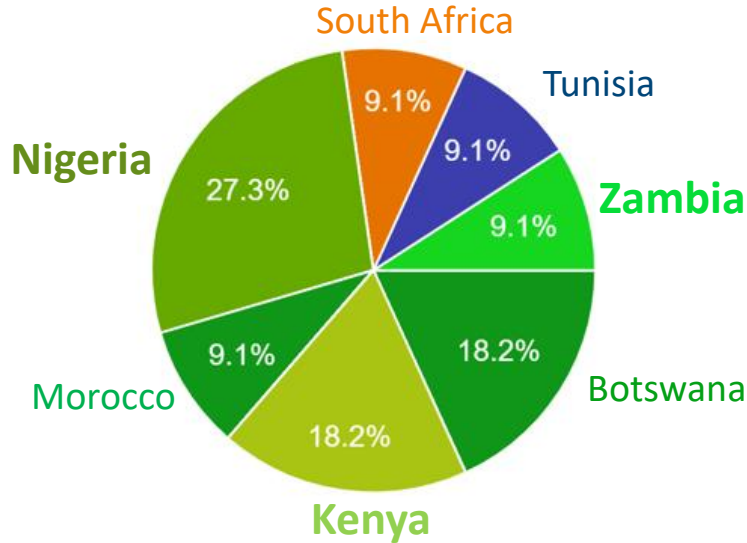
Project Title: Enhanced Power Management and Efficiency in Electric Bicycles using Super-Lift Converter for improved Range and Power Factor

Team Members: Adiba Muskan. A, Rahul. A, Subiya Mehek. S, Shams Tabrez Hussain. A
(B.S.Abdur Rahman Crescent Institute of Science and Technology - India)

- Ideas for expanding the publicity for student contest:
 - Include countries from the same region, such as Sri Lanka, Pakistan, Bangladesh, and Nepal, with a focus on rural and underrepresented colleges.
 - Increase engagement through social media platforms and prioritize outreach to student councils, clubs, and organizations instead of relying solely on faculty networks.
 - Promote the event in official IAS newsletters and at conferences for broader visibility.
 - Implement a two-tiered application process: start with an initial form for participants to express their intent to join, followed by a second form for full project submission later. This approach allows us to gauge the number of participants early on, without waiting until the final submission deadline.

Student Design Contest (Africa) 2024

Applicants



11 proposals from 7 countries

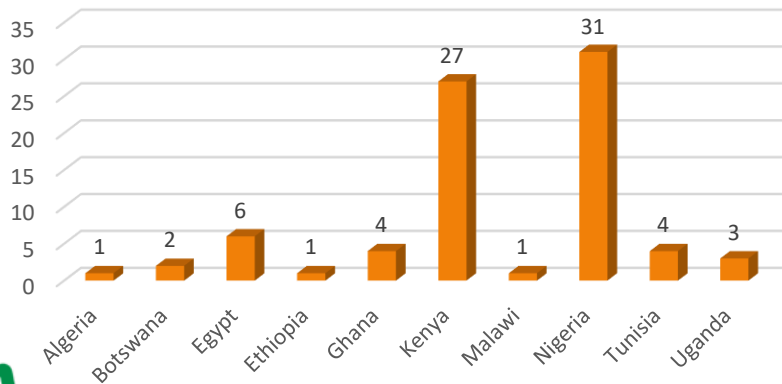
Winners

1. AgriTracka -Machine learning-based agricultural monitoring platform, **University of Lagos, Nigeria**
2. Sky Guardian - Advanced Air Quality Monitoring System, **Dedan Kimathi University of Technology, Kenya**
3. EcoCharge - A Smart Mppt Charge Controller, **University of Zambia, Zambia**
3. An IOT-based Smart Emergency Management System, **Nnamdi Azikiwe University (UNIZIK), Nigeria**
3. Lesser Waste and Cleaner Air: Bringing Sustainable Energy Solutions to Anambra State of Nigeria, **Nnamdi Azikiwe University (UNIZIK), Nigeria**

Travel Grants

- Travel Grant for 10 African students to attend the R8 SYP in Grenoble, France, July 2024.
- Ten selected, with 6 in reserve. Only four were able to attend because of visa issues.

Applicants



IEEE IAS-IPCSD R8 SYP Grenoble Travel Grant Africa 2024

The IEEE IAS-IPCSD offers **ten travel grants** for African students to attend the IEEE R8 SYP Grenoble 2024 Congress up to - **\$2000**.

IEEE R8 SYP Grenoble 2024 Congress
France | 15-19 July

Eligibility:

- Undergraduate, MSc, or PhD student living in Africa.
- Interested to be a member of IEEE and IEEE IAS if selected. IEEE free membership will be offered for the 1st year (use the IASLRP code for IEEE IAS membership).
- Interested to volunteer in IEEE IAS student activities.
- Recommendation letter from your university or department.

CONTACT US

IPCSD-DEIC Liaison for Africa

iasipcsd.competition@gmail.com

Apply Now: [Use this link](#)

Deadline: **May 30, 2024**

Travel Grant to Power Africa 23 and 24

- Travel Grant for the DEIC Africa Liaison, Mhret Behre Gebremariam, to attend Power Africa 2023 and 2024 and publicize IAS IPCSD, with emphasis on DEI activities.



**Great job,
Mhret!**



2025 Funds Requests

- 3 Student Design Contests
 - Africa - \$6k
 - India (extend to Bangladesh, Pakistan, etc) – \$6k
 - Central and South America - \$6k
- Liaisons travel Grants
 - Power Africa 2025
 - Relevant 2025 conferences in South America and India
- Other ideas in the following slides
 - To be implemented in collaboration with other IAS departments including CMD (Srikanth Pillai), Diversity and Inclusion (Pia Torres) and Education Department (Pericle Zanchetta)

IPCSD DEIC New Ideas

- DEIC-sponsored Best Paper award - encouraging female first authors to apply
 - Journal papers – Transactions on IA and Open Journal on IA
 - Conference papers
 - IEEE PES/IAS Power Africa conference has the Best Paper Award in two categories: "Postgraduate students" and "Undergraduate students." Can we add best paper by a female first author?
 - ECCE has a best presentation award for everybody where female authors are strongly encouraged to participate – at ECCE 2023 a female author won the award.
- Mentorship Program for Students and Young Engineers: virtual - to connects students and young professionals, particularly female, from underrepresented regions with experienced engineers in the IEEE community. This would provide guidance, networking opportunities, and professional development support at minimal cost.
- Outstanding chapter awards with specific focus on DEI in underrepresented countries, i.e. best chapter to promote DEI

IPCSD DEIC New Ideas cont.

- Outreach: promote engineering in high schools, particularly in rural areas and low-income neighborhoods
 - IAS has previously sponsored awards at US science fairs (grades 6-12) in the past (status today?). DEIC would like to sponsor awards specifically for female students and pre-college students in underdeveloped or rural regions
- Virtual Technical Workshops and Webinars for engineers in remote or underrepresented areas: low-cost, topic-specific webinars or short virtual courses led by experts in the field could help broaden access to knowledge
 - focus on practical skills, problem-solving in resource-constrained environments, or innovations in IAS topics relevant to developing countries
- Open Access Technical Resources: Creating a repository of open-access educational materials, technical papers, and recorded sessions specifically targeted at underdeveloped areas could provide lasting value
 - partnering with educational platforms or utilizing existing IEEE resources (IAS sister societies?)



IPCSD Standards Development Committee

EMMANUEL AGAMLOH
IPCSD STANDARDS CHAIR

10/20/2024

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:
 - ▶ Marium Rasheed (TSC)/ Bruno Lequesne (TEC)
 - ▶ Tanya Gachovskaya – PEDCC
 - ▶ Rajesh Deodar– EMC
 - ▶ Mahesh Swamy – 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

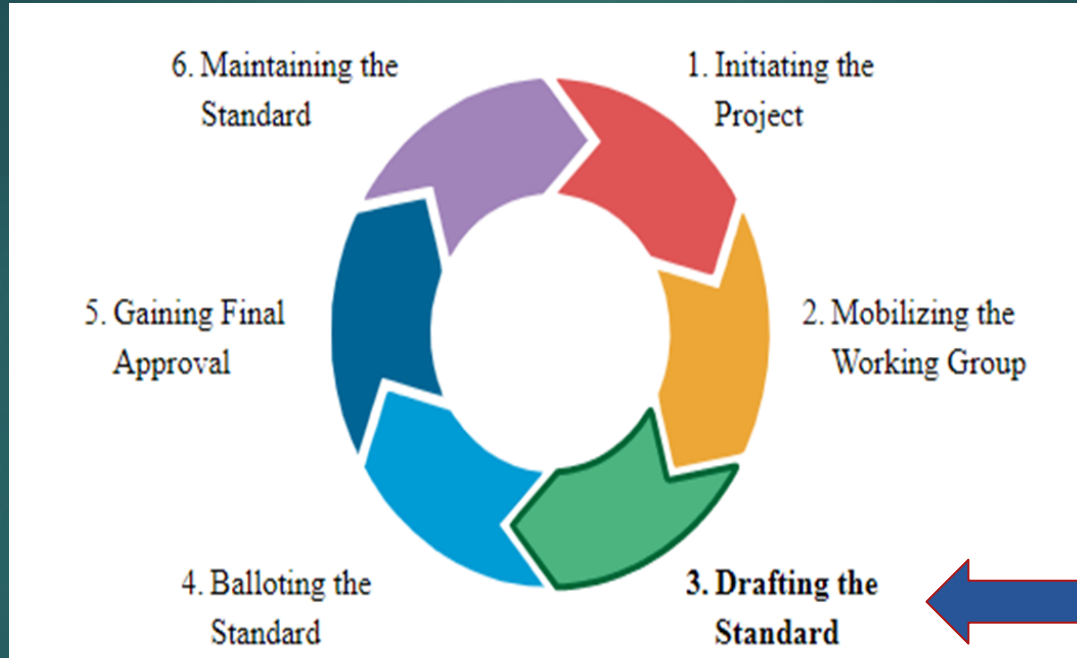
***Policies and Procedures for:
All Individual Method Working Groups of the Industrial Power Conversion
Systems Department Standards Development Committee***

- ▶ 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**

IEEE Classifications of Standards

- **Standards:** documents with mandatory requirements.
 - *Shall* indicates mandatory requirements to be strictly followed without deviation in order to conform to the standard.
- **Recommended practices:** documents in which procedures and positions preferred by the IEEE are presented.
 - *Should* indicates a particular recommendation among several possibilities without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required.
- **Guides:** documents in which alternative approaches to good practice are suggested but no clear-cut recommendations are made.
 - *May* indicates a course of actions permissible within the limits of a standard.
 - *Can* indicates possibility and capability.
- **Trial-Use documents:** publications in effect for not more than three years (See subclause 5.7. of the *IEEE SA Standards Board Operations Manual*). They can be any of the categories of standards publications listed above.

IEEE Standards Development Cycle



Ongoing Projects

(New Projects Since Committee Was Established in 2020)

- ▶ P2943: Energy Efficiency Test Methods for Three-Phase Variable Frequency Drive Systems
 - ▶ **WG Chair : Mahesh Swamy, Vice Chair: Lei Hao**
- ▶ P2964: Standard for Datasheet Parameters and Tests for Integrated Gate Drivers
 - ▶ **Chair: Tanya Gachovskaya, Vice Chair: Zheyu Zhang, Sec: Xiaoqing Song**
- ▶ P114: IEEE Standard test procedure for single-phase induction motors
 - ▶ **WG Chair : Maher Al-Badri**
- ▶ P3114: IEEE Standard for Datasheet Parameters and Testing Protocols for Ultraviolet (UV) Light-emitting Diodes (LEDs)
 - ▶ **Chair: Tanya Gachovskaya, Vice Chair: Pratibha Sharma, Sec: Jeff Hulett**
- ▶ P3542 - Standard for Efficiency Classification of fully Integrated Motor Drives
 - ▶ **Chair: Lee Empringham?**
- ▶ P3543 - Standard for Power Quality Requirements for Fully Integrated Motor Drives
 - ▶ **Chair: Lee Empringham?**
- ▶ P3544 - Standard for Data Interconnect Requirements for Power Factor Correction of Distributed Variable Frequency Motor Drives
 - ▶ **Chair: Lee Empringham?**
- ▶ P3880: Recommended Practice for System Stability of AC Power Converters in Data Centers
 - ▶ **Mauricio Cespedes**
 - ▶ **Co-Sponsorship with PELS**

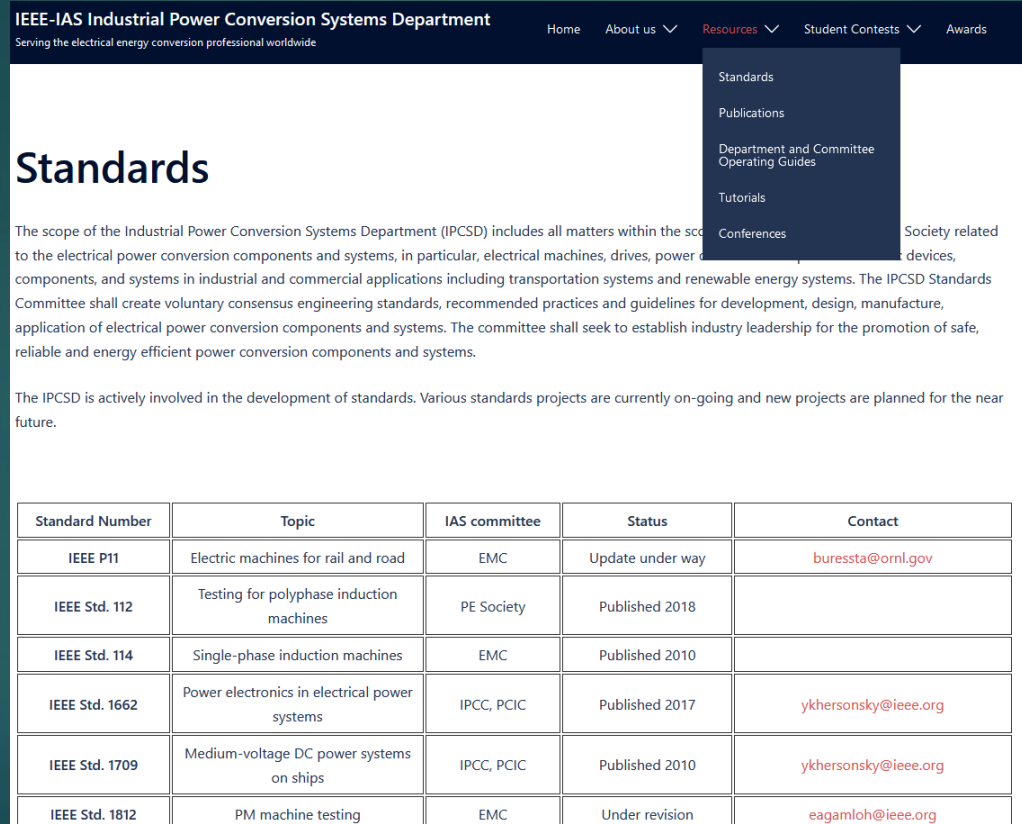
2024



Ongoing Projects

Visit the IPCSD website for ongoing projects

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



IEEE-IAS Industrial Power Conversion Systems Department
Serving the electrical energy conversion professional worldwide

Home About us Resources Student Contests Awards

Standards

The scope of the Industrial Power Conversion Systems Department (IPCSD) includes all matters within the scope of the IEEE Society related to the electrical power conversion components and systems, in particular, electrical machines, drives, 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

Key Activities in 2024

- New IAS Stds Liaison: Patricia Roder to Mike Kipness
- Drafting of Standards progressed for:
 - P2943: IDC, 1) PAR extension, 2) Conversion from Standard into Recommended Practice
 - P2964, P3114: PEDCC - PAR extension
 - P1812 (published Jan 2024), P114: EMC - PAR extension
 - P11: EMC - Drafting is stalling, a new WG Chair is needed
 - P3380: IPCC – IAS trying to work with PELS on this Std
- IPCC has initiated 3 new Projects
 - P3542 - Standard for Efficiency Classification of fully Integrated Motor Drives
 - P3543 - Standard for Power Quality Requirements for Fully Integrated Motor Drives
 - P3544 - Standard for Data Interconnect Requirements for Power Factor Correction of Distributed Variable Frequency Motor Drives
 - Working Group Members are needed
 - Potential collaboration with IDC

State of Standards Subcommittees in 2024



- Several IPCSD Technical Committees are active in standards
- IDC, PEDCC, EMC have active ongoing projects and new projects within the year
- IPCC has just initiated 3 new Projects.
- RSEC, TSC have no new activity within the year. Several members of these committees are engaged with standard elsewhere., e.g. TSC is involved with standards within TEC, RSEC is involved with SCC.
- TSC has appointed new Standards Chair for TSC
- IPCC standards has been trying to work with PELS on a new project P3380.
- We are encouraging all TCs to increase their activities.

Thanks

IEEE-IAS IPCSD Awards Committee

Luca Solero on behalf of **Bob Guenther**

Awards Committee Chair

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.

2024 Awardee: Mohammad Anwar (GM)

“for the development of optimized power electronics and electric drive systems for reliable & customer affordable electric vehicles”



IAS Gerald Kliman Award – past recipients

2024 – Mohammad Anwar

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

IEEE Fellow (Deadline to Submit Nominations for Fellow Class of 2026: !! February 7, 2025 !!)

Note: Fellow Class of 2025 was announced this past summer

- 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.

IAS members in IEEE Fellow Class 2025

- Jonathan Clare
- Hiroshi Fujimoto
- Vahan Gevorgian
- Xiaochuan Ja
- Byoung Kuk Lee
- Dong Choon Lee
- S. M. Muyeen
- Lorraine K Padden
- Li Qi
- Li Ran
- Joseph Rostron
- Kazuo Shimizu
- Giri Venkataramanan
- Brian A Welchko
- Wei Xu
- Di Zhang
- Georges Zissis

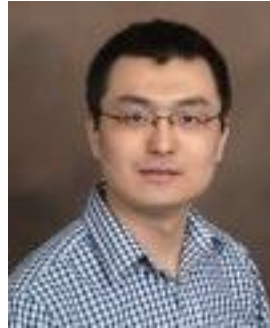
2023 IAS Awardees

- Outstanding Achievement: **Sheesa H. Jayaram**
- Mentor/Educator Award: **Germano Lambert-Torres**
- Andrew W. Smith Outstanding Young Member Achievement Award: **Satarupa Bal**
- Outstanding Young Member Service Award: **Sidra Malik**
- Distinguished Service Award: **Daleep Mohia**

IAS awards

- IAS IPCSD Gerald Kliman Innovator Award (Deadline: June 1, 2025 for the 2025 Kliman Award)
 - Awards require a nominator (cannot self-nominate)
 - Nominations through web-based-form: <https://ias.ieee.org/awards.html>
 - Nominations can be submitted starting January 1, 2025
- IEEE Andrew W. Smith Outstanding Young Member Achievement Award (Deadline: May 1, 2025)
- IAS Outstanding Young Member Service Award (Deadline: May 1, 2025)
- IAS Distinguished Service Award (Deadline: May 1, 2025)
- IAS Outstanding Achievement Award (1Deadline: May 1, 2025)
- IEEE AS Outstanding Educator/Mentor (Deadline: May 1, 2025)
- IEEE Fellow (Deadline: February 7, 2025 for Fellow class of 2026)

IEEE-IAS IPCSD Conference Development Committee



Xiaonan Lu

Conf. Development Committee Chair

IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



APEC Mentorship Program

- **First-Time Cross-Society Mentorship Program:** PSMA/IAS/PELS started in APEC 2024
- Continued conversations with the APEC membership committee since early 2024 in preparation for APEC 2025
- Joint announcement of the APEC mentorship program

PSMA (Power Sources Manufacturers...)
1,343 followers
1mo · Edited · 🌐 [+ Follow](#)

Time to announce 1st, 2nd and 3rd place [#student](#) [#winners](#) as well as leading [#mentors](#) in our [#mentorship](#) program as we give power engineering students a head start in ...more

PSMA Mentorship Program · 6 pages

PSMA CONGRATULATES THE STUDENT MENTORSHIP WINNERS FOR APEC 2024!

IEEE Industry Applications Society
4,650 followers
1mo · 🌐

Give your career a head start! Power engineering students, the mentorship program at APEC is here to elevate your journey. Developed by IEEE Industry Applications Society (IAS), IEEE Power Electronics Society (PELS), and Power Sources Manufacturers Association (PSMA), this initiative is designed to build valuable student mentorship opportunities.

2025 round solicitation is expected in fall 2024



APEC Technical Committee Support

- IAS-IPCSD has existing regular support to the APEC technical committee on the track chair and session chair levels
- Supported by IPCSD leadership, we engaged with the APEC technical committee to **formalize IPCSD’s support to APEC**
- **Progress Update:** session chair solicitation to all the Technical Committees (email from Luca Z.) - ~ 30 session chair candidates from IPCSD

Luca Zarrì

to rukmidutta@ieee.org, doljk@ynu.ac.kr, yongsug.suh@knu.ac.kr

Dear all,

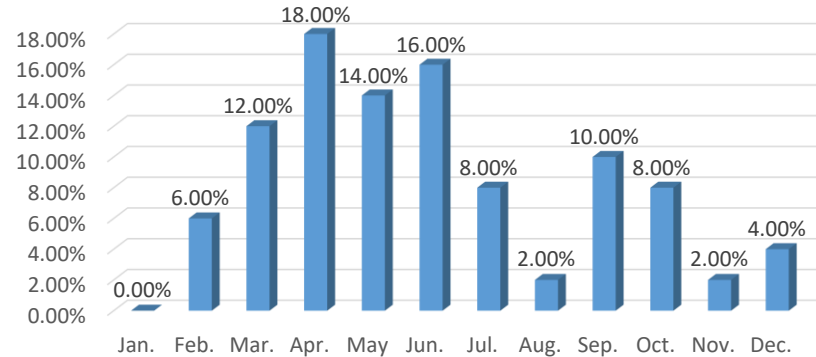
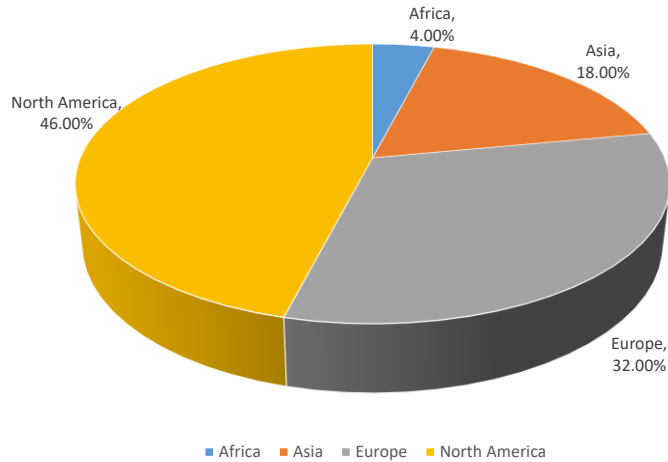
As you probably know, every year, IAS contributes to 2025.

To increase IAS involvement in **APEC** and support of the shared with the conference organizing committee.

The **session** topics are as follows:

	The session topics are as follows: 1. AC-DC Converters 2. DC-DC Converters 3. DC-AC Inverters 4. Devices and Components 5. Magnetics 6. Power Electronics Integration and Manufacturing 7. Control 8. Modeling and Simulation 9. Motor Drives 10. Power Electronics for Utility Interface 11. Renewable Energy Systems 12. Transportation Power Electronics 13. Wireless Power Transfer 14. Power Electronic Applications	Name	Emails	Topics	
PEDEC		Prof. Adam W. Skorek	adam.skorek@uqtr.ca	1. AC-DC Converters 2. DC-DC Converters 3. DC-AC Inverters 4. Devices and Components 5. Magnetics 6. Power Electronics Integration and Manufacturing 7. Control 8. Modeling and Simulation	
PEDEC		Boyi Zhang	Boyi.Zhang@dellaww.com	4. Devices and Components 6. Power Electronics Integration and Manufacturing	
PEDEC		Shuang Zhao	shuang.zhao@ieee.org	4. Devices and Components	
PEDEC		Cao Zhao	caozhao@vt.edu	6. Power Electronics Integration and Manufacturing	
PEDEC		Gowind Chavan	gowind.chavan@ieee.org		
PEDEC		Jim Ching-Jan Chen	chenjcm@ntu.edu.tw		
PEDEC		Han Dai	hangdai@ieee.org	3. DC-AC Inverters 9. Motor Drives 11. Renewable Energy Systems 12. Transportation Power Electronics	New addition, only one session
DC		Dr. Mohamed Gamal Hossain Assistant Professor, Faculty of Engineering, Tanta University, Egypt	Mohamed.Hossain<mohamed.hossain3@eng.tanta.edu.eg>	9. Motor Drives 12. Transportation Power Electronics	
DC		Weijun Qiu, Ph.D. Senior Engineer - Power Electronics Control System John Deere Intelligent Solutions Group Electrification 2800 John Deere Run Cary, North Carolina, 27513 Phone: (919)404-2073 Email: qiuweijun@johndere.com	qiuweijun@johndere.com	2. DC-DC Converters 12. Transportation Power Electronics 13. Wireless Power Transfer	I graduated from Purdue University with a Ph.D. in focusing on the development of hybrid electric vehicle electronics. I am currently a senior engineer with led system. I sincerely hope to contribute to the comm promoting work.
EMC		Antonio J. Marques Cardoso <ajmarcar@gmail.com>	ajmarcar@gmail.com	9. Motor Drives 12. Transportation Power Electronics	TCJ past chair
		Nayran C. Kar, Ph.D., P.Eng. Distinguished University Professor Tier 1 Canada Research Chair in Electrified Vehicles			

IAS Sponsored/Co-sponsored Conferences (02/2024 – 08/2025)



- IAS sponsored/co-sponsored conferences generally feature a balance in terms of conference location and time
- However, there are still under-represented areas that could draw special attention:
 - Africa 4%



IEEE

IEEE INDUSTRY APPLICATIONS SOCIETY
Industrial Power Conversion Systems Department



IAS Sponsored/Co-sponsored Conferences (02/2024 – 08/2025)



Next Steps:

- Continue the joint efforts on APEC mentorship program with PELS and PSMA
- Continue to formalize and standardize IPCSD's involvement in APEC in coordination with IPCSD leadership
- Promote IAS conference sponsorship in under-served areas in coordination with IAS Conference Department

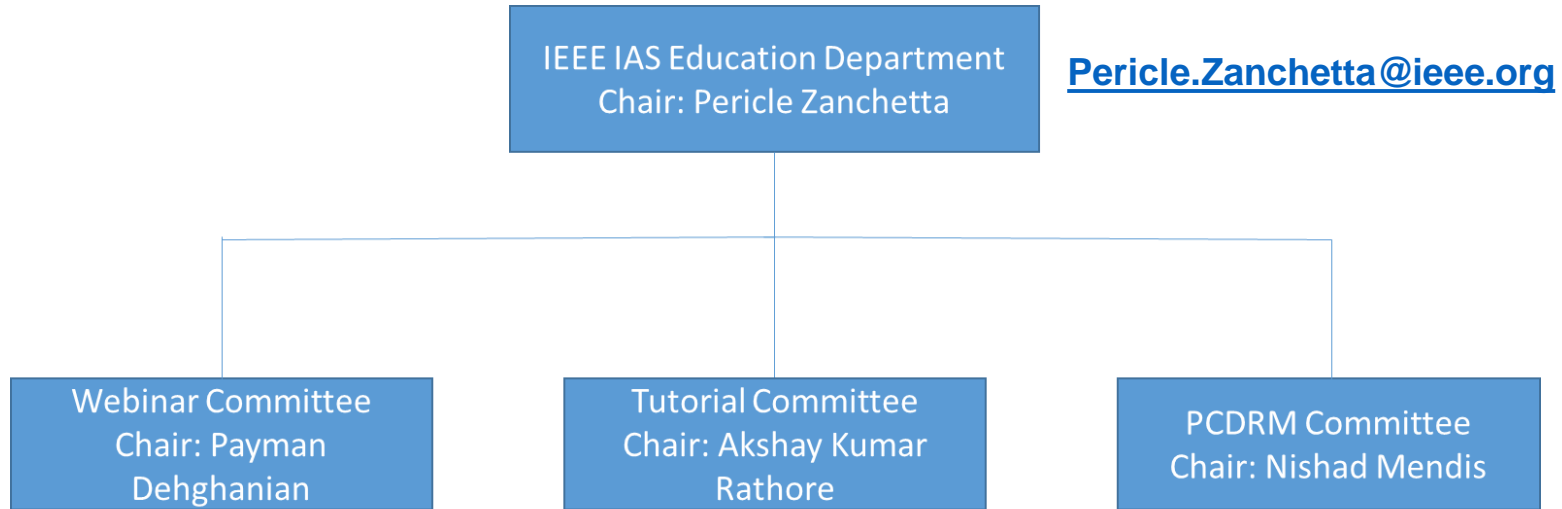


Education Department Report - IAS IPCSD Meeting

Pericle Zanchetta

October 20th 2024

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 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.

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.

- (1) LabVIEW Graphical Programming Environment and Hardware-in-the-Loop (HIL) for Power Electronics and Drives Applications – status [completed]**
- (2) EMT simulation using PSCAD -Power System Fundamentals- status [ongoing]**

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

Latest webinar Oct. 2, 2024: Energy-Aware Operation of Data Centers Towards Low-Carbon Future
Presented by: Dr. Zhaohao Ding, North China Electric Power University

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.

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.

Upcoming tutorial: Ground Fault Protection – Principles and Applications

Nehad El-Sherif, MNKYBR Technologies Inc, Canada

Date: Tuesday 29 October, Time: 9 AM ET (UTC-4), Registration link:

<https://lnkd.in/gCBMUCPw>



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>.

From January 1st 2025 the new IAS Education department Chair will be Nishad Mendis rasanjana2000@gmail.com

Thank you



IEEE IAS Publications – IPCSD Meeting Phoenix, AZ Oct. 20, 2024

Leon Tolbert – IAS Publications Dept. Chair

Contents

- ▶ Proposed *IEEE Journal on Wireless Power Technologies*
- ▶ Put older issues of *IEEE Industry Applications Magazine* on IEEExplore
- ▶ Publication costs increasing
- ▶ Proposed awards for outstanding Reviewers and Associate Editors
- ▶ TIA special Issues
- ▶ TIA submission, acceptance, review statistics

Proposed IEEE Journal on Wireless Power Technologies

- Going through the IEEE approval process. Hope to be approved by early 2025 and publish first issue in 2026.
- Shares by Society:
 - Microwave Theory and Technology Society (MTT-S) 26%
 - Power Electronics Society (PELS) 26%
 - Industrial Electronics Society (IES) 12.5%
 - Antennas and Propagation Society (APS) 12.5%
 - Industry Applications Society (IAS) 9%
 - Electron Device Society (EDS) 5%
 - Council on Radio Frequency Identification (CRFID) 5%
 - Electromagnetic Compatibility Society (EMC) 4%

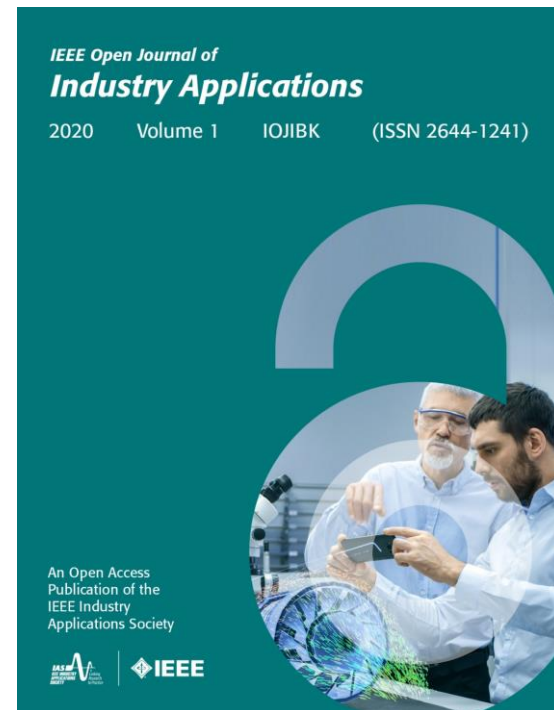
IEEE Industry Applications Magazine

- ▶ EIC: David Durocher
- Explore cost to image older print issues (1995 to 2004) to add to IEEEExplore.



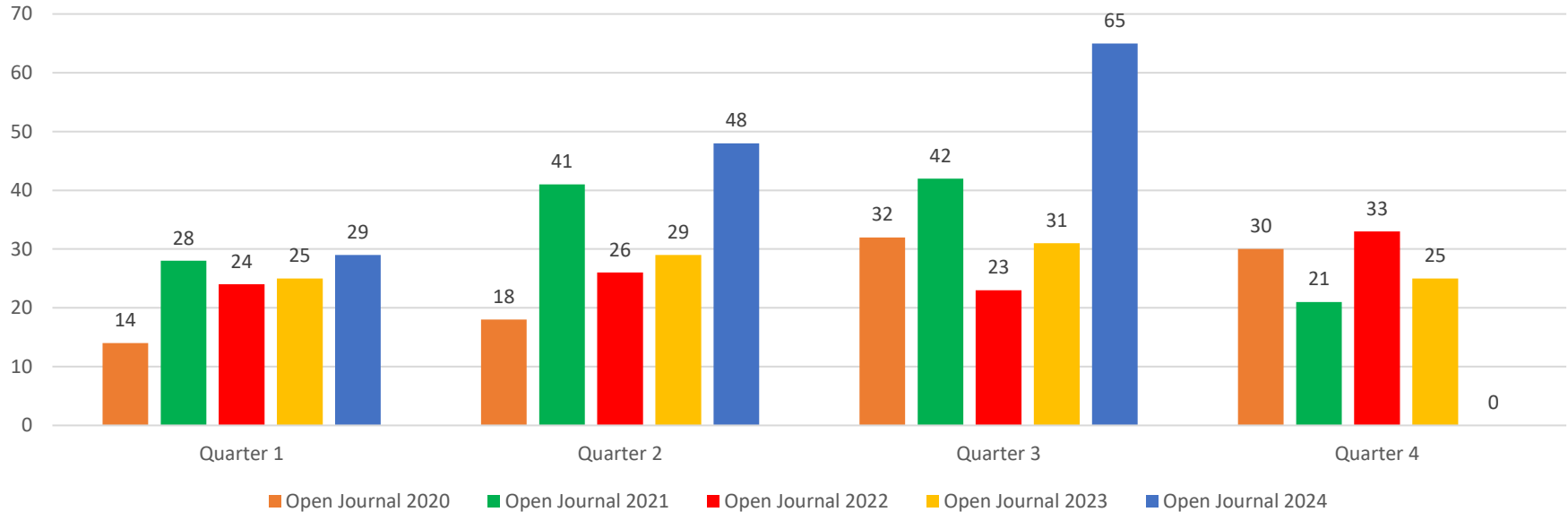
IEEE Open Journal of Industry Applications

- ▶ Prof. Pericle Zanchetta (Editor in Chief)
- ▶ Prof. Luca Solero, Università Roma Tre, Italy (Deputy Editor in Chief)
- ▶ Journal started in 2020
- ▶ Cost is \$1995 per accepted article (2024).
- ▶ Cost will be \$2075 starting Jan. 2025
- ▶ IEEE members get a 5% discount.
IAS Members get a 20% discount.
 - Impact Factor: 7.9
 - Article Influence Score: 2.993
 - Cite Score: 13.5



Open Journal of Industry Applications (OJIA) paper submissions

Open Journal Quarterly



IEEE Transactions on Industry Applications

- ▶ EIC Term: 2024 – 2027
Dr. Kashem Muttaqi, Univ. of Wollongong, Australia
- ▶ Deputy EIC – Conference Paper Invitations
Dr. Xiaodong Liang, Univ. of Saskatchewan, Canada
- ▶ Deputy EIC - Special Issues and Direct Submission
Dr. Sukumar Kamalasadan, Univ. of North Carolina Charlotte, USA



- Impact Factor: 4.2
- Article Influence Score: 1.142
- Cite Score: 9.9

Transactions on Industry Applications – Hybrid Journal

- Article published for free. Need to have IEEEExplore subscription to access.
- Authors have option to request article be open access. If so, charges are as follows:
 - \$2495 per accepted article (2024).
 - \$2645 starting Jan. 2025
 - IEEE Members receive a 5% discount
 - IEEE Society Members receive a 20% discount

Recognition of Outstanding Reviewers and Associate Editors

- TIA EIC Kashem Muttaqi is proposing to IEEE and IAS to establish awards for annual recognition of outstanding reviewers and associate editors.
- Based on number of reviews, timeliness of reviews, quality of reviews
- Recognition of Outstanding Reviewers – 25 annually, \$300 Award
- Recognition of Outstanding Editors – 10 annually, \$300 Award
- Number of Nominations by Technical Committee Chairs correlated to how many papers reviewed by the committee in the previous year.
- Each year, recognize Outstanding reviewers (limited to 5% of accepted papers) and Outstanding Associate Editors (limited to 2% of accepted papers)

TIA Proposed Changes

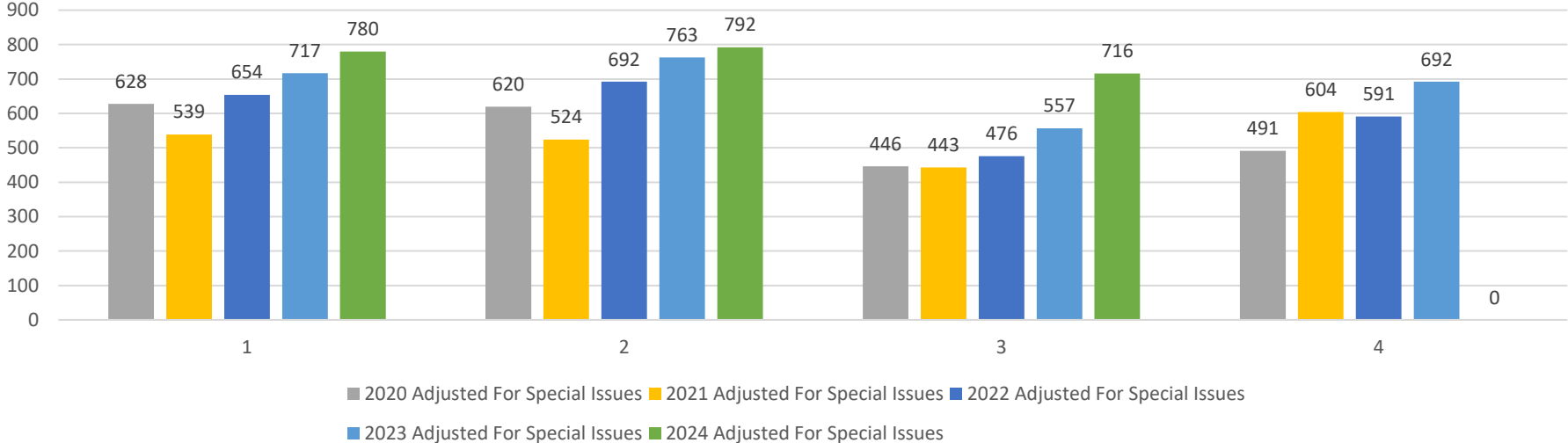
- Minimum of 3 reviews (instead of 2)
- Allow direct submission into Manuscript Central without needing an invitation from the Technical Committee Paper Review Chair. (Would still need to check that a conference version of the paper has already been published)

Upcoming TIA Special Issues

- Knowledge-and Data-Driven Smart Energy Management in Distribution Networks
Publish in Jan/Feb 2025.
- Convergence of Data-driven and Physics-based Approaches in Power System Analysis, Optimization, and Control
Publish in Mar/Apr 2025.
- Advanced and innovative control technologies for grid-resilience-enhancing energy storage systems
Publish in May/June 2025.
- Advanced Topologies, Control Techniques and Modeling Methodologies for Bidirectional DC/DC Converters
Jan/Feb 2026. Abstracts due 01-Oct-2024.
- Cybersecurity and resilience of networked microgrids
Mar/Apr 2026. Abstracts due 01-Jan-2025.
- Advanced design and control of high-speed motors
Publish in May/June 2026. Abstracts due 01-Jan-2025.

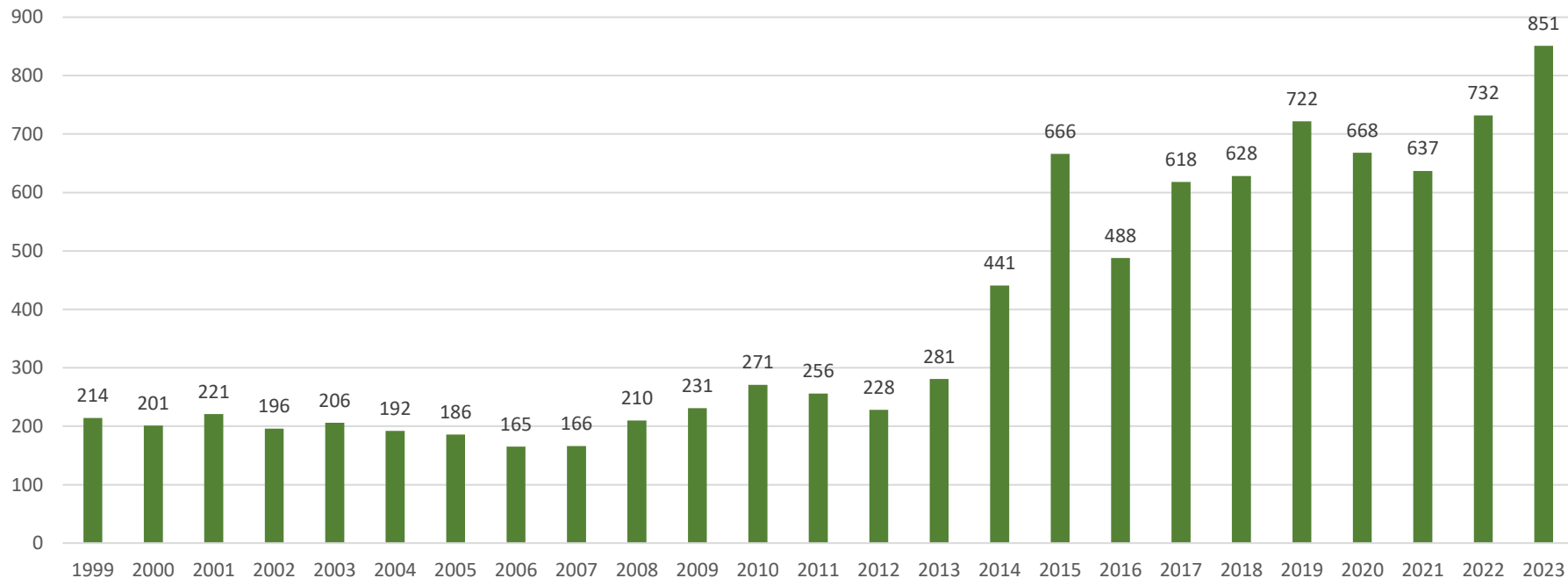
Trans. on IA Paper Submissions Last 5 Years (2020-2024)

Quarterly Comparison

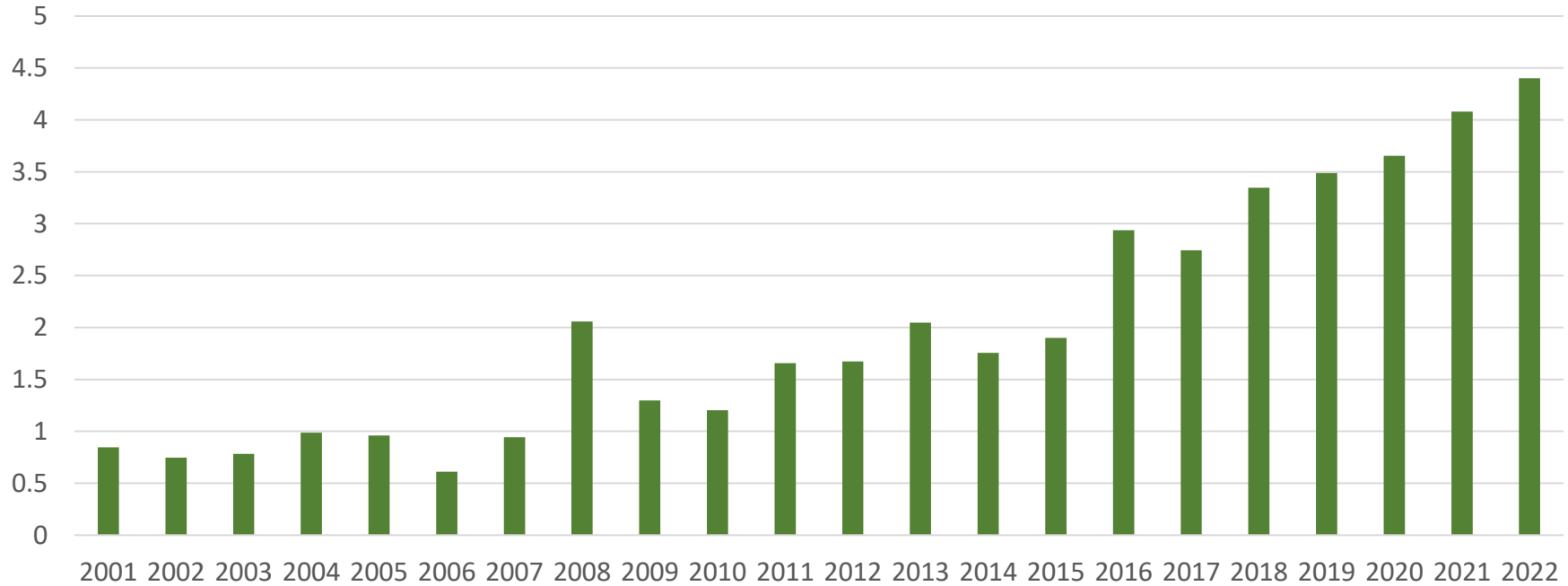


Number of TIA Papers Published Per Year

TIA Papers Published Per Year



TIA Impact Factor by Year



All Time and 12 Month Submission IPCSD

Committee	Submissions (All Time)	Submissions (12 Months) 2022-2023	Submissions (12 Months) 2023-2024
Electric Machines	2,873	183	256
Industrial Drives	1,408	73	112
Industrial Power Converter	2,646	202	197
Power Electronic Devices and Components	460	38	37
Renewable and Sustainable Energy Conversion Systems	1,099	27	85
Transportation Systems	564	46	81

Acceptance By Committee IPCSD (Last 12 Months)

Industrial Power Conversion Systems Department	Accepted in Magazine	Accepted in Transactions	Reject	Acceptance Rate	Total
Electric Machines Committee	2	125	95	57.21%	222
Industrial Drives Committee		52	38	57.78%	90
Industrial Power Converter Committee	2	88	105	46.15%	195
Power Electronic Devices and Components Committee		27	11	71.05%	38
Renewable and Sustainable Energy Conversion Systems Committee	1	36	43	46.25%	80
Transportation Systems Committee		32	26	55.17%	58

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

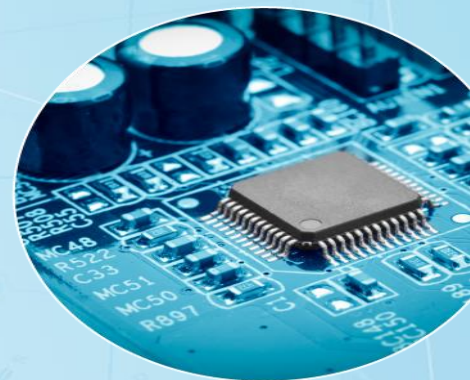
Committee	First Decision (All Time)	First Decision (12 Months) 2023-2024
Electric Machines	72	73
Industrial Drives	65	66
Industrial Power Converter	88	74
Power Electronic Devices and Components	100	67
Renewable and Sustainable Energy Conversion Systems	83	77
Transportation Systems	83	72

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

Committee	Final Decision (All Time)	Final Decision (12 Months) 2023-2024
Electric Machines	141	138
Industrial Drives	124	129
Industrial Power Converter	141	133
Power Electronic Devices and Components	181	303
Renewable and Sustainable Energy Conversion Systems	153	149
Transportation Systems	168	145

IAS Joint Publications

- ▶ Journal of Emerging and Selected Topics in Power Electronics
 - 50% share by IAS and 50% share by PELS
- ▶ IEEE Transactions on Transportation Electrification
 - 25% share by IAS (40% PELS, 12.5% TEC, 12.5% PES, 10% VTS)
- ▶ IEEE Electrification Magazine
 - 15% share by IAS
 - Transportation Electrification Council has 55% share
 - Change name to IEEE Transportation Electrification Magazine
- ▶ IEEE Transactions on Sustainable Energy
 - 10% share, mostly PES
- ▶ Journal of Emerging and Selected Topics in Industrial Electronics
 - 10% share, mostly IES



IEEE Open Journal of Industry applications update

EiC: Prof. Pericle Zanchetta

October 2024

Governance

Advisory Board

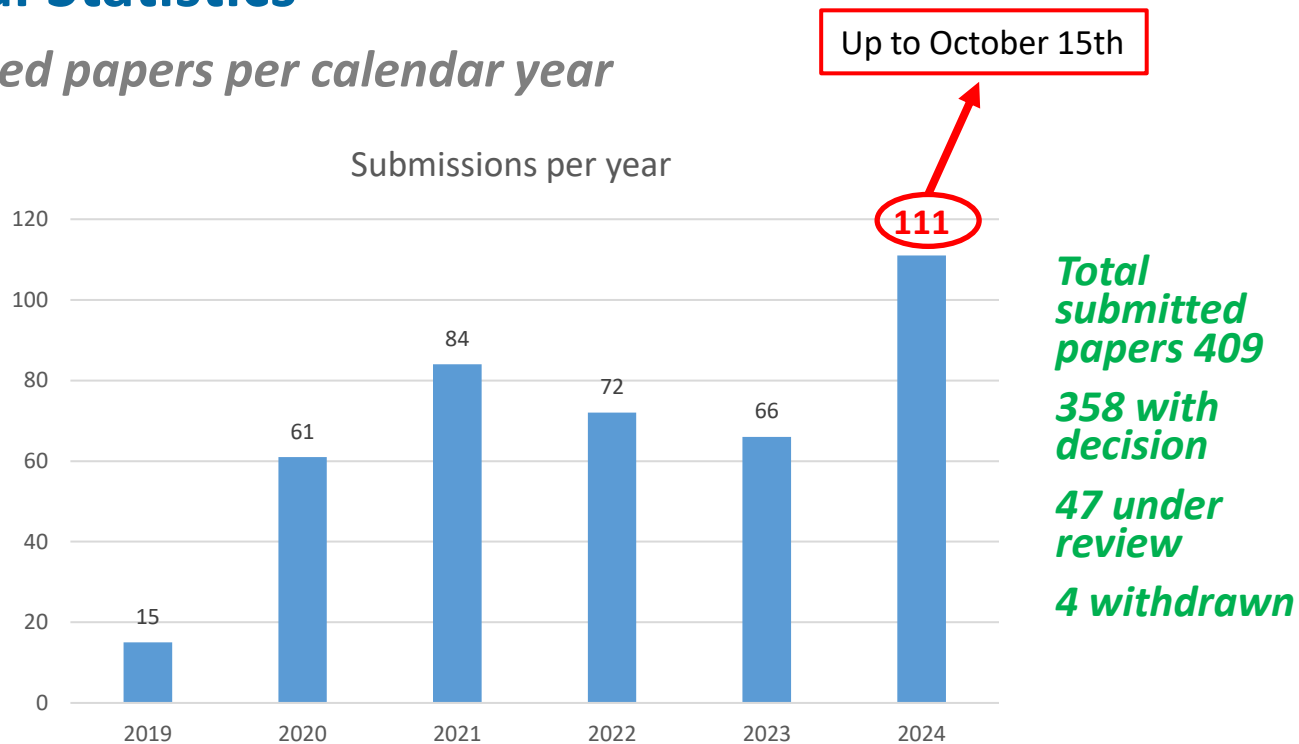
- ▶ Prof. Pericle Zanchetta, University of Nottingham (UK) and University of Pavia (Italy) - **Editor in Chief**
- ▶ Prof. Luca Solero, University of Roma Tre - **Deputy Editor in Chief**
- ▶ Prof. Andy Knight, University of Alberta (Canada) – **President, IEEE IAS**
- ▶ Prof. Leon Tolbert, University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

Editorial Board

- ▶ Composed by the editor in chief, the deputy editor in chief and 24 Associate Editors from all IAS departments.

Journal Statistics

Submitted papers per calendar year

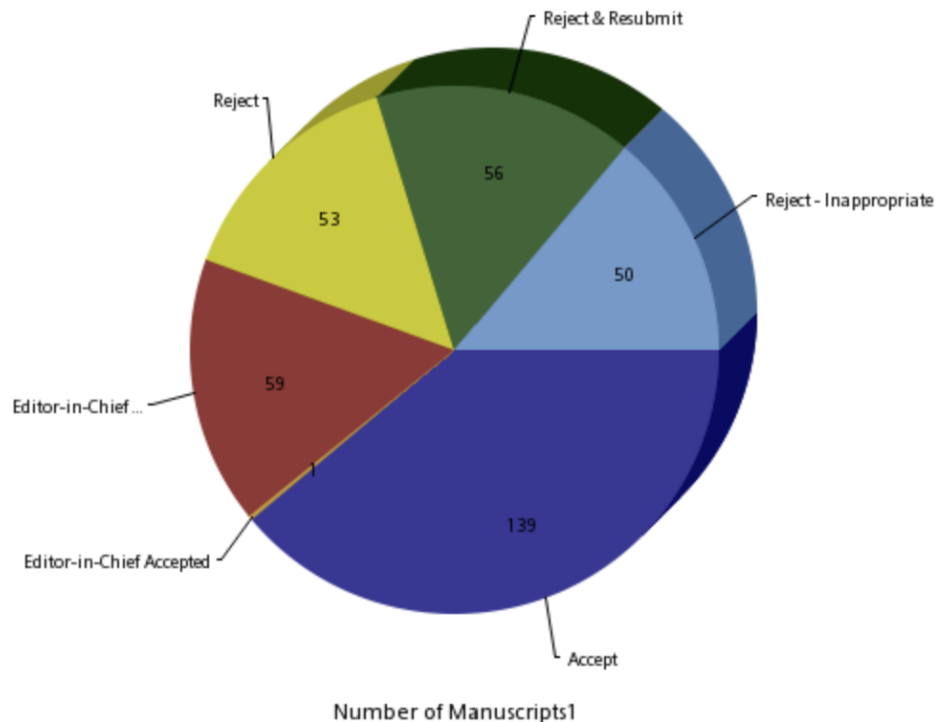


Journal Statistics

2020-2024

Papers	358
#Accepted	140
#Rejected	218
Acceptance Rate	39.1%
Avg Days to First Decision	40.6
Avg Days to Final Decision	62.7

Papers with decisions

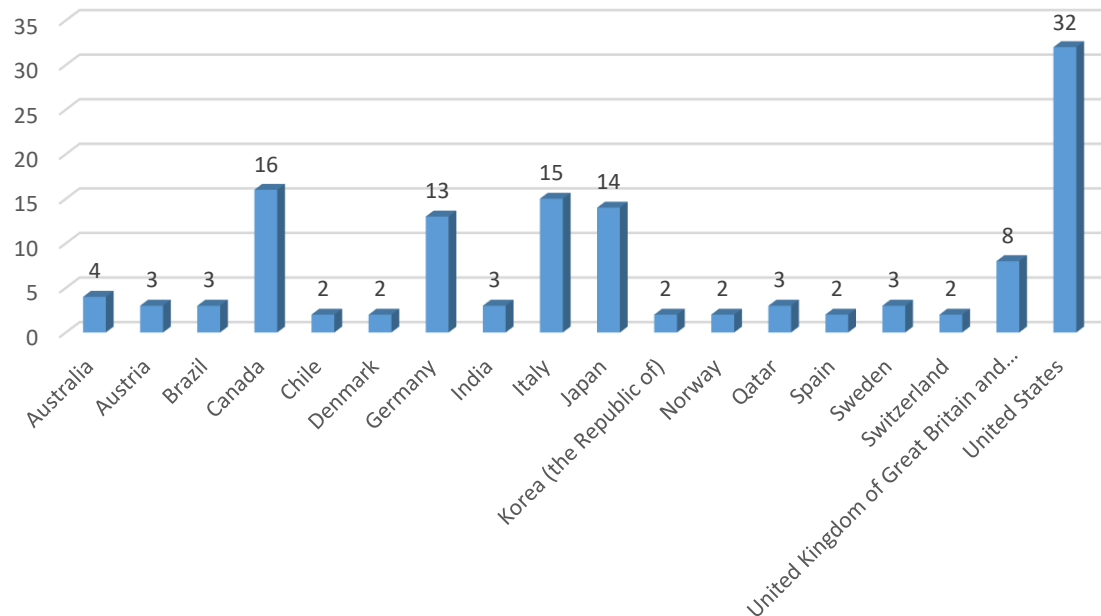


Journal Statistics

2020-2024

Accepted papers by country

Accepted papers by countries (>1)



Journal info

- ▶ 5 Volumes of the OJIA have been released so far:
 - ❖ 2020 (23 papers)
 - ❖ 2021 (31 papers)
 - ❖ 2022 (21 papers)
 - ❖ 2023 (29 papers)
 - ❖ 2024 (32 papers up to October 15)

**Article Processing Charge (APC): US\$1995 – Until December 31st 2024.
It will increase to US\$2075 from January 1st 2025**

Discounts

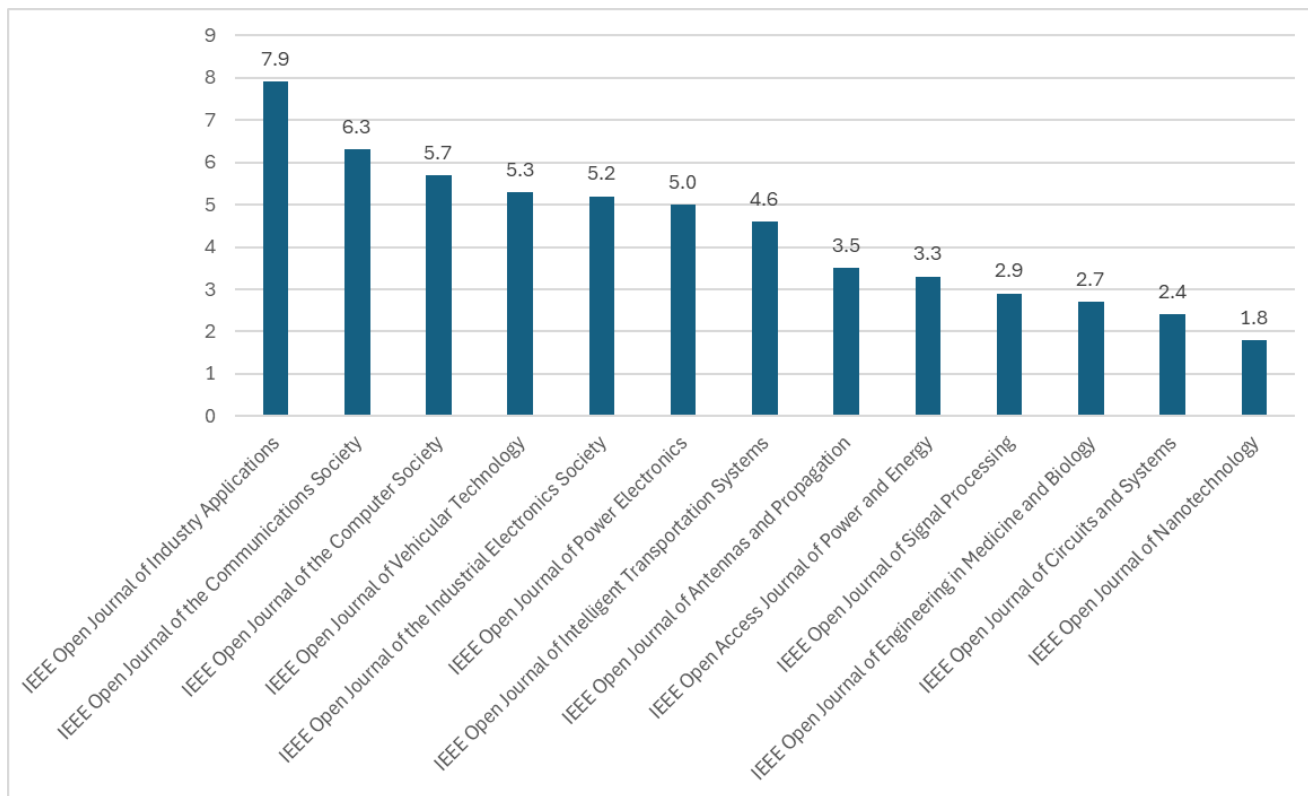
IEEE Members receive a 5% discount.

IEEE Society Members receive a 20% discount.

These discounts cannot be combined.

Journal performance

IEEE Open Journals IF 2023



Journal performance

IEEE Transactions IF 2023 Comparison

7.9

 Impact
Factor

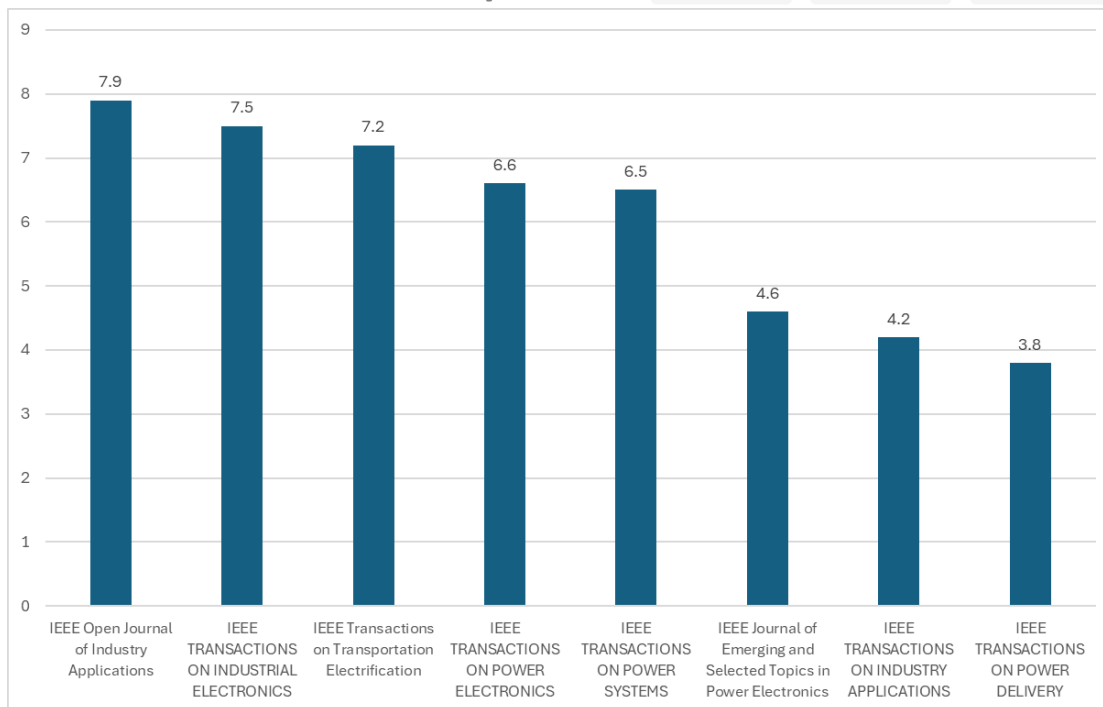
0.00129

Eigenfactor

2.993

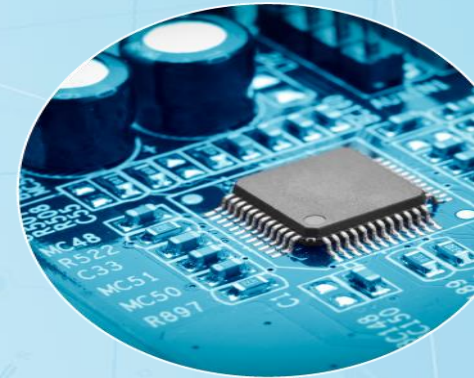
 Article
Influence
Score

13.5

 CiteScore
Powered by Scopus




Thanks for your attention
Questions?



Red Flag Papers Report

ECCE and TIA editorial initiatives and awards

Luca Zarri

IPCSD Vice-Chair

Red Flag Papers Report

The table below shows the number of papers that have been under review by an IPCSD Technical Committee for 90 days or more without a decision, according to the Red Flag Reports issued on the first day of each month. Special attention should be given to Red Flag Papers, which have been under review for more than 180 days.

			EMC			IDC			IPCC			PEDCC			RESCS			TSC		
	Papers in the list	Red flag papers - Total	Number of papers in the list	Red flag papers	Days in review	Number of papers in the list	Red flag papers	Days in review	Number of papers in the list	Red flag papers	Days in review	Number of papers in the list	Red flag papers	Days in review	Number of papers in the list	Red flag papers	Days in review	Number of papers in the list	Red flag papers	Days in review
February	10	0	1	0	150	0	0		3	0	101	2	0	138	2	0	106	2	0	161
March	16	0	5	0	109	0	0		7	0	133	1	0	148	2	0	121	1	0	106
April	13	0	5	0	123	0	0		4	0	112	0	0		4	0	152	0	0	
May	19	0	9	0	153	1	0	102	8	0	142	0	0		1	0	101	0	0	
June	16	1	5	1	184	4	0	112	1	0	144	0	0		5	0	115	1	0	103
July	19	3	4	3	214	3	0	138	2	0	109	0	0		5	0	145	5	0	117
August	28	4	9	4	245	2	0	169	4	0	101	3	0	121	3	0	176	7	0	138
September	22	4	11	3	255	2	0	108	0	0		2	0	136	3	1	207	4	0	169
October	18	2	6	1	269	4	0	138	3	0	108	0	0		1	0	103	4	1	199

IPCSD Working Group for Special Issues

This working group aims to prepare and oversee new proposals for special issues to be published in JESTPE or Trans. on Industry Applications.

The group was established in March 2023 but became fully operational a few months later. The members are as follows:

- Luca Zarri (IPCSD Vice Chair) luca.zarri@ieee.org
- Zheyu Zhang (PEDCC) zheyu.zhang@ieee.org
- Giulio De Donato (EMC) giulio.dedonato@ieee.org
- Petros Karamanakos (IPCC, European Liaison) p.karamanakos@ieee.org
- Kevin Lee (IDC) kevin_lee@ieee.org
- Jiangbiao He (TSC) jiangbiao.he@uky.edu
- Eduard Muljadi (RESCS) mze0018@auburn.edu

IPCSD Working Group for Special Issues

Typically, a **special issue proposal** has the following characteristics:

- ❑ It should help develop new areas relevant to IAS that may not fit within the scope of a single committee.
- ❑ The scope of a special issue should be focused but not too narrow. It must not overlap with other special issues in journals of the sister societies (IAS, TPEL, IES).
- ❑ It usually requires identifying one or two Guest Editors (GEs) and some Guest Associate Editors (GAEs). The rules depend on the specific journal.
- ❑ The selection of AEs must follow principles of equality and diversity (different country, background, and gender).
- ❑ The aim of a Special Issue (SI) supported by the IPCSD is to give greater visibility to our committees.

IPCSD Working Group for Special Issues

Challenges in Submitting Special Issue Proposals

- ❑ IAS members seem less inclined to propose special issues for many reasons, including different perspective between industry and academia.
- ❑ Many committees are unfamiliar with the procedures and guidelines for submitting special issue proposals.
- ❑ Identifying trending topics can be challenging and often requires a swift response, whereas committee processes tend to move slowly.
- ❑ A special issue proposal typically requires selecting one or two Guest Editors (GEs) and several Guest Associate Editors (GAEs). Only academic members tend to have extensive networks of researchers who can support these proposals.

IPCSD Working Group for Special Issues

Actions Taken

- ❑ Initially, the procedure for submitting a special issue proposal was explained in detail, as it was unfamiliar to most members.
- ❑ A list of trending papers and recent special issues from leading transactions journals was compiled (including trending topics from ECCE23 and ECCE24, as well as the most downloaded papers from TIA, TIE, TPEL and JESTPE) and shared with the members. Following this, the members were invited to propose potential topics for special issues.
- ❑ **Four possible topics were identified for JESTPE special issues, and two for TIA special issues.**
- ❑ **The goal is to establish a process for submitting three proposals per year, with the understanding that only some will be accepted.**

IPCSD Working Group for Special Issues



Call for Papers

IEEE Journal of Emerging and Selected Topics in Power Electronics

Special Issue on Integrated Motor Drives



Call for Papers

IEEE Journal of Emerging and Selected Topics in Power Electronics

Medium Voltage Power Converters for Grid Electrification



Call for Papers

IEEE Journal of Emerging and Selected Topics in Power Electronics

**Special Issue on Fault-Tolerant Electric Drives
and Power Converters**



Call for Papers

IEEE Journal of Emerging and Selected Topics in Power Electronics

**Special Issue on Multi-Objective Design Optimization
and Design Automation for Power Converters**

CONFIDENTIAL

IPCSD Working Group for Special Issues

Progress on Special Issue proposal

- Writing and revising the call for papers. **DONE**
- Selecting two Guest Editors: The Guest Editors should be respected researchers, active in IAS, with editorial experience. **IN PROGRESS**
- Selecting ten Associate Editors: While the number of AEs is flexible, special sessions typically include 10 AEs with diverse backgrounds (academia/industry), geographical diversity, and gender representation. Ideally, the AEs should also have some editorial experience. Each committee has been asked to identify suitable AEs (table in the next slide) **IN PROGRESS**

Expected outcome:

At least one special issue submitted to JESTPE by the end of year.

IPCSD Working Group for Special Issues

Actions

Title of the special issue	Original proposal from	1st guest editor	2nd guest editor	Number of topic chairs that should be appointed by each committee						
				IPCC	EMC	IDC	TSC	RSECS	PEDCC	Total
<i>1) Multi-objective design optimization and design automation for power converters</i>	TSC	IPCC	PEDCC	3	0	0	2	2	3	10
<i>3) Fault-tolerant power converters and drives</i>	TSC	TSC	IDC	2	2	2	2	2	0	10
<i>6) Medium voltage power converters for grid electrification</i>	RSECS	RSECS	IPCC	4	0	0	0	4	2	10
<i>9) Emerging Technologies for Integrated Motor Drives</i>	EMC	EMC	IDC	2	2	2	2	0	2	10

IPCSD Working Group for Special Issues

Ongoing issues

- ❑ Finding 40 AEs and 8 Guest Editors is a highly demanding task. Ensuring competence, equality and diversity adds significant constraints. However, each committee is required to identify only 4-5 people per special issue rather than 10-12.
 - **ECCE is an opportunity to engage members directly.**
- ❑ Announcements to the members cannot be done to avoid prematurely disclosing the topic of the SIs.
 - **A potential solution could be the mandatory involvement of the TIA Associate Editors.**
- ❑ SI proposals have been received from research groups not affiliated with IAS (some from PELS). These groups often do not follow the established guidelines.

IPCSD Working Group for Special Issues

Ongoing issues

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IPCSD Technical Committees' Awards

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

IPCSD Key Updates

Luca Solero

IPCSD and TCs Websites

There is a delay in getting the 2nd phase about the IAS website restructuring; anyway, during next months IPCSD and the Technical Committees will be involved in the realization of the webpages of interest

- Each Technical Committee has already expressed the preference to design the page to look like the rest of the IAS website or not
- Each Technical Committee is asked to designate one reference person for the website (IPCSD Webmaster Anant Singh will coordinate): send names and email addresses to luca.solero@uniroma3.it

2025 Initiatives

(funding already planned)

Student Design Contest

Africa (\$6k), India region (\$6k), Central and South America (\$6k)

Support DEIC Liaisons attendance to regional IEEE Conferences

Africa (\$3k), Central and South America (\$3k)

IPCSD Technical Committees Reviewers Award

Reviewers (TIA and ECCE) to be awarded a \$100 discount on ECCE 2025 registration (up to \$12k)

Key Updates of Technical Committees

EMC, IDC, IPCC, PEDCC, RESC, TSC

**IPCSD Annual Meeting (Editorial+Department)
Sunday Oct. 20, 3:30-6:00 pm
Phoenix Convention Center
Room 127C**

Electric Machines Committee

Chair: Prof. Rukmi Dutta

(updates on standards, websites, editorials, papers & conferences, others)

EMC Standards

- ▶ EMC appointed a new chair for the standard subcommittee: Dr Rajesh Deodhar

Project #1: IEEE P-11

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

- WG Chair: Tim Burress, burresta@ornl.gov,
- Current Version: 2006
- PAR Approved: March 2015, Extended to December 2023, additional extension request submitted
- On-going revision since June 2015
- Seeking a new WG Chair - interested members, please contact - rulkmidutta@ieee.org, or rajesh.deodhar@ieee.org
- Awaiting WG's response for an update as of Sep 2024

Project #2: IEEE P-1812

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

- WG Chair: Yao Duan
- Trial-use guide published: 2014
- On-going revision since August 2016
- Final version published in Jan 2024 valid until Jan 2034
- WG Chair confirmed that there are no further updates as of Sep 2024

Project #5: IEEE P-252

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

- PAR submitted August 31, 2018
- Completed 1st Ballot, approval rate reached, working on addressing comment
- Interested Members contact: Yao Duan yao.duan@ieee.org
- Final version published in Sep 2022 valid for 10 years until 2032
- WG Chair confirmed that there are no further updates as of Sep 2024

Project #3: IEEE P-1415

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

- WG Chair: Pinjia Zhang
- Current Version: 2006
- PAR Approved: 2019
- On-going revision since Oct. 2019
- Awaiting WG's response for an update as of Sep 2024

Project #4: IEEE P-620

"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)
- PAR submitted August 2019
- Final approval obtained on 02/2022 and published on 06/2022
- Current version valid for 10 years from publication - until 2032
- WG Chair confirmed that there are no further updates as of Sep 2024

Project #6: IEEE P-114

IEEE Standard Test Procedure for Single-Phase Induction Motors

PAR was approved on September 26, 2021

- WG Chair: Maher Al-Badri
- First WG meeting held on October 26, 2021
- On-going monthly WG meetings
- Interested Members contact: Maher Al-Badri albadri@ieee.org
- WG chair confirmed that they have requested a 1 year extension as of Sep 2024

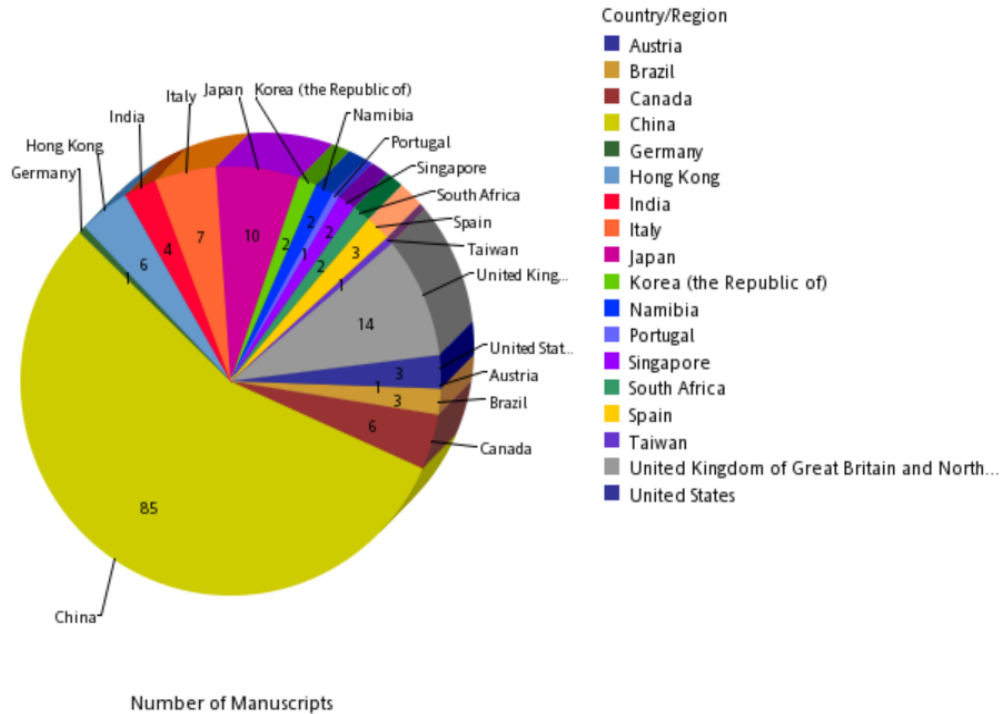
Website

- ▶ The EMC would like to replicate our current page on new IAS websites.
- ▶ EMC secretary Narges Taren identified a few issues with the new look and provided the following feedback:
 - (1) going from link to link using the quick link/section requires moving to the top of the page, which could be inconvenient if the page is long.
 - (2) the links on top of the page take to the general IAS pages, not to the specific committees. For instance, if one clicks on the membership link at the top of the page, it takes to the membership page in IAS, not the membership link of EMC.
- ▶ We have not heard back from Patrick McCarren about whether these issues can be resolved. The current EMC page has yet to be migrated to the new look.

EMC TIA paper statistics

Grouped by Country/Region Of Submission.

Number of Manuscripts by Country/Region



Country/Region of Submitting Author	Number of Manuscripts	Percentage of Total
Austria	1	0.7%
Brazil	3	2.0%
Canada	6	3.9%
China	85	55.6%
Germany	1	0.7%
Hong Kong	6	3.9%
India	4	2.6%
Italy	7	4.6%
Japan	10	6.5%
Korea (the Republic of)	2	1.3%
Namibia	2	1.3%
Portugal	1	0.7%
Singapore	2	1.3%
South Africa	2	1.3%
Spain	3	2.0%
Taiwan	1	0.7%
United Kingdom of Great Britain and Northern Ireland	14	9.2%
United States	3	2.0%
Total:	153	0.7%

Acceptance By Committee IPCSD(Last 12 Months)

Industrial Power Conversion Systems Department	Accepted in Magazine	Accepted in Transactions	Reject	Acceptance Rate	Total
Electric Machines Committee	2	125	95	57.21%	222
Industrial Drives Committee		52	38	57.78%	90
Industrial Power Converter Committee	2	88	105	46.15%	195
Power Electronic Devices and Components Committee		27	11	71.05%	38
Renewable and Sustainable Energy Conversion Systems Committee	1	36	43	46.25%	80
Transportation Systems Committee		32	26	55.17%	58

IAS Total	48	703	614	51.50%	1365
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Final Decision Time By Committee IPCSD (All Time and Last 12 Months)

Manuscript Type	Final Decision (12 Months) 2021-2022	Final Decision (12 Months) 2022-2023	Final Decision (12 Months) 2023-2024
Electric Machines Committee	157	174	138
Industrial Drives Committee	137	125	129
Industrial Power Converter Committee	166	152	133
Power Electronic Devices and Components Committee	172	136	303
Renewable and Sustainable Energy Conversion Systems Committee	144	166	149
Transportation Systems Committee	176	233	145

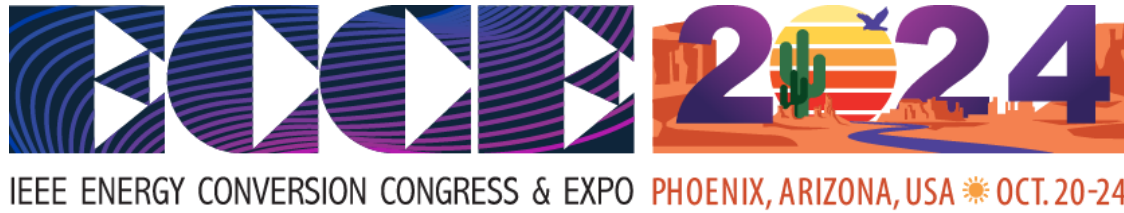
IPCSD	Number of AEs Per Committee	Papers Handled by the Committee in 2023-2024	Average Number of Papers Per AE
Electric Machines Committee	19.00	222.00	11.68
Industrial Drives Committee	16.00	90.00	5.63
Industrial Power Converter Committee	31.00	195.00	6.29
Power Electronic Devices and Components Committee	15.00	38.00	2.53
Renewable and Sustainable Energy Conversion Systems Committee	15.00	80.00	5.33
Transportation Systems Committee	13.00	58.00	4.46
IPCSD Total	109.00	683.00	6.27
IAS Total	254.00	1365.00	5.37

EMC- Subcommittees and Representatives

- ▶ EMC Vice-Chair report - Giulio De Donato
- ▶ Chair Award Subcommittee: Rafal Wrobel, Newcastle upon Tyne, rafal.wrobel@newcastle.ac.uk
- ▶ Chair Standard Subcommittee: Rajesh Deodhar, England, UK; rajesh.deodhar@ieee.org
- ▶ EMC representative for IPCSD Conference Development Committee: Alireza Fatemi, Warren, US, alireza.fatemi@gm.com
- ▶ EMC representative for IPSCD Equity and Diversity Committee: Xu Yang, Michigan, US xu.yang@ieee.org

ECCE Best Reviewer Recognition

- ▶ The EMC submitted two proposals to IAS Special Projects/Initiatives 2024 in February and received funding confirmation in March:
 1. Discount in ECCE 2024 registration for top 10 reviewers of TIA EMC papers and award certificates for three best reviewers.
 2. Discount in ECCE 2024 registration for top 10 reviewers of Track G papers of ECCE 2024.
- ▶ Track G TCs were asked to rate reviewers based on responsiveness and quality of reviews.
- ▶ After the EiC informed that a Transactions best reviewer prize is being organised for TIA, EMC officers decided to award the discounts to 20 ECCE reviewers rather than 10.
- ▶ 42 reviewers were shortlisted at the end of the review process and 20 were selected prioritizing early/mid career researchers, while considering geographical and gender balance.
- ▶ Awardees were provided a discount code in mid June to be used during registration to ECCE 2024.
- ▶ Awardees will be emailed a certificate after the conference.



IAS INDUSTRIAL DRIVES COMMITTEE (IDC) MEETING

Tuesday, October 22, 2024
2:00 to 3:00 PM (EDT)



Use this QR code to become a new member or confirm your presence

Agenda

1. Approvals of the Agenda and 2023 Meeting Minutes
2. Old Business and Reports
 - Vice-chair, Paper Review – Transactions Papers
 - Vice-chair, Programs – Report on ECCE 2024
 - Vice-chair, Standards Subcommittee
3. Awards and Recognitions
 - Awards Subcommittee 2024
 - Conference and Transaction Paper Awards
 - Associate Editors
 - Nagamori Awards
4. New Business
 - Nomination of 2025 IDC Slate of Officers
 - Submission of Papers to Transactions on Industry Applications
 - Recruit Topic Chairs & Session Chairs for ECCE 2025
 - Future Conferences (ECCE 2025 and other conferences)
5. Closing Remarks & Motion to Adjourn

2. Old Business and Reports

- Vice-chair, Paper Review – Transactions Papers
- Vice-chair, Programs – Report on ECCE 2024
- Vice-chair, Standards Subcommittee
- Report on conferences held in 2024

2. Old Business and Reports

Vice-Chair Paper Review Report
on Transactions Papers



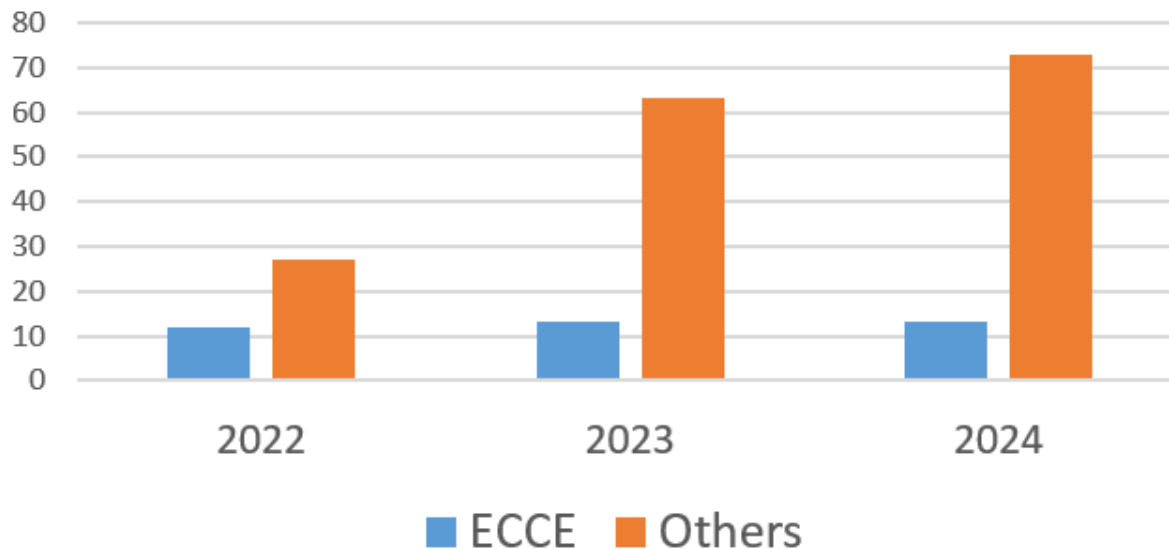
Number of original submissions (new papers)

	Number of new submissions
January 2024-October 2024	86
Papers invited and not submitted yet	10
TOTAL	86(96)

13% ↑

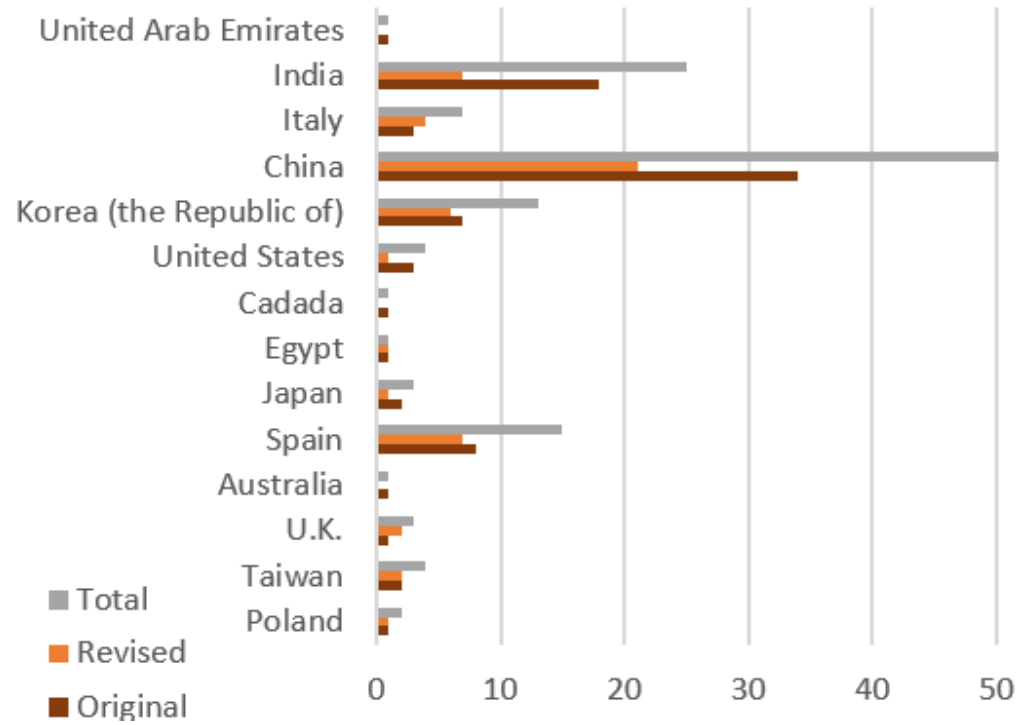
Previous years	Number of new submissions Papers (invited papers)
Oct. 2020-Oct. 2021	95(111)
Jan. 2022-Oct. 2022	56(69)
Jan. 2023-Oct. 2023	76(94)

Number of Submissions from IAS-sponsored Conferences



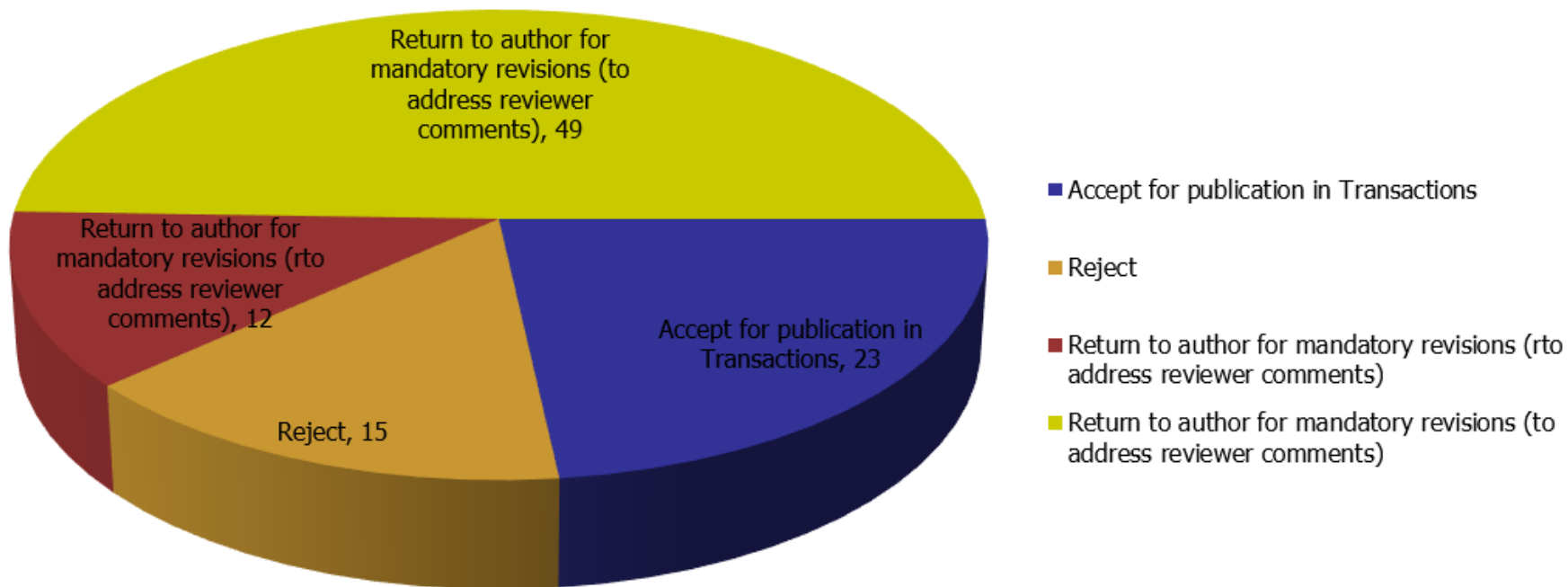
There are **28** Submission from ICEMS (International Conference on Electrical Machines and Systems) this year as comaped to **13** papers from ECCE.

Country of the Corresponding Author (Jan 2024-Oct 2024)



Country/Region of Submitting Author	Original	Revised	Total
Poland	1	1	2
Taiwan	2	2	4
U.K.	1	2	3
Australia	1	0	1
Spain	8	7	15
Japan	2	1	3
Egypt	1	1	2
Cadada	1	0	1
United States	3	1	4
Korea (the Republic of)	7	6	13
China	34	21	55
Italy	3	4	7
India	18	7	25
United Arab Emirates	1	0	1
Total:	83	53	135

Decision Ratio by Manuscript Type



Acceptance Rate and Days to Final Decision

Period: Jan. 2024 – Oct. 2024	Num. of papers with a final decision
Accepted papers	23
Rejected papers	15
Total	38

Acceptance rate	%
Acceptance rate (2024)	60.5%
Acceptance rate (2023)	41.4%
Acceptance rate (2022)	39.5%
Acceptance rate (2021)	50%

	2024	2023	2022	2021	2022 IPCSD Avg.
Days to first decision	59.2	74.1	69.2	70	74.8
Days to final decision	115	107.0	109.3	105	158.7

2. Old Business and Reports

Vice-Chair Programs – Report on ECCE 2024



ECCE 2024 Technical Program Committee Members

Track H - Electric Drives

Vice-chairs: Di Pan (IDC) Ali Bazzi (PELS)

Topic Chairs

- | | |
|-------------------------|-------------------------|
| ❖ Roberto Petrella | ❖ Giacomo Scelba |
| ❖ Shafiq Odhano | ❖ Mario Pulvirenti |
| ❖ Mohamed Gamal Hussein | ❖ Arshiah Mirza |
| ❖ Mattia Rossi | ❖ Tutku Buyukdegirmenci |
| ❖ Shih-Chin Yang | ❖ Luca Vancini |
| ❖ Rashmi Prasad | ❖ Weiqiang Chen |
| ❖ FNU Nishanth | ❖ Mehdi Farasat |

Thank you to all Topic Chairs!

ECCE 2024 Technical Program Committee Members, Track H - Electric Drives

- Track H: 10 oral sessions, 3 poster sessions.
- Two session chairs are assigned to each oral session, one for each poster session

Session Chairs

- | | | |
|--------------------|--------------------|------------------|
| ❖ Siddharth Ballal | ❖ Jae-Suk Lee | ❖ Luigi Tornello |
| ❖ Ali Bazzi | ❖ Arshiah Mirza | ❖ Sina Vahid |
| ❖ Weiqiang Chen | ❖ Di Pan | ❖ Luca Vancini |
| ❖ Hassan Eldeeb | ❖ Roberto Petrella | ❖ Anitra Wilson |
| ❖ Mehdi Farasat | ❖ Rashmi Prasad | ❖ Chen-Yen Yu |
| ❖ Baoyun Ge | ❖ Marcello Pucci | ❖ Luca Zarri |
| ❖ Huangjie Gong | ❖ David Reigosa | ❖ Di Zhang |
| ❖ Ahmed Hembel | ❖ Giacomo Scelba | |

Thank you to all Session Chairs!

IDC Digest Submissions (169 + 2 digests)

Sub-tracks are organized as:

Symbol	Names	No. of Papers
H	Electric Drives	0
H01	Induction motor drives	11
H02	PM and IPM motor drives	22
H03	Control of electric drives	57
H04	Drive applications & drive-utility interface	5
H05	Sensorless drives	15
H06	Monitoring, diagnostics, reliability and EMI	26
H07	High speeds and direct drives	5
H08	Energy efficient motor drives	3
H09	Medium voltage drives and high-power drives	10
H10	New technologies, integrated drives and standards	3
H11	Electrical drives for aerospace and traction applications	11
H12	Electrical drives for wind and other renewable integration	1
	Total	169

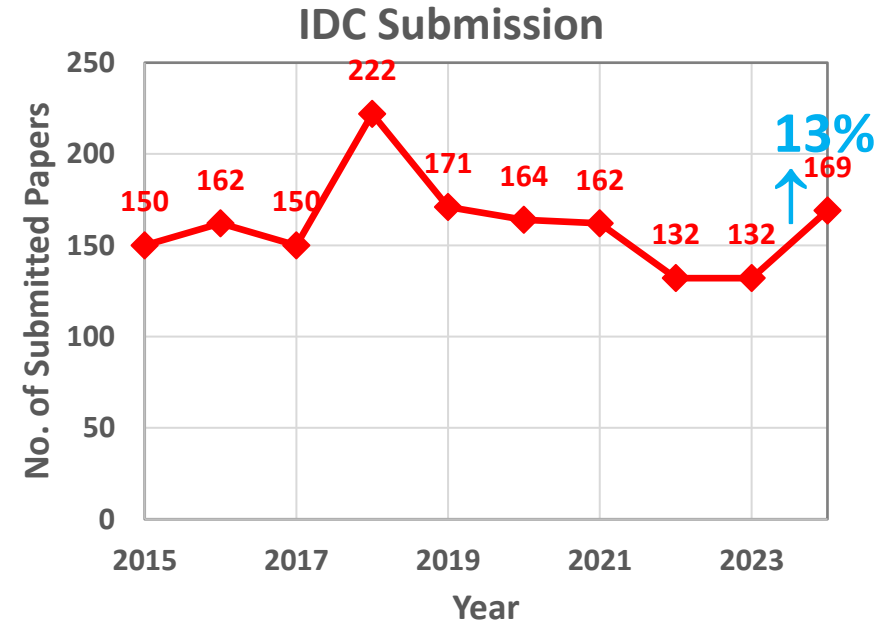
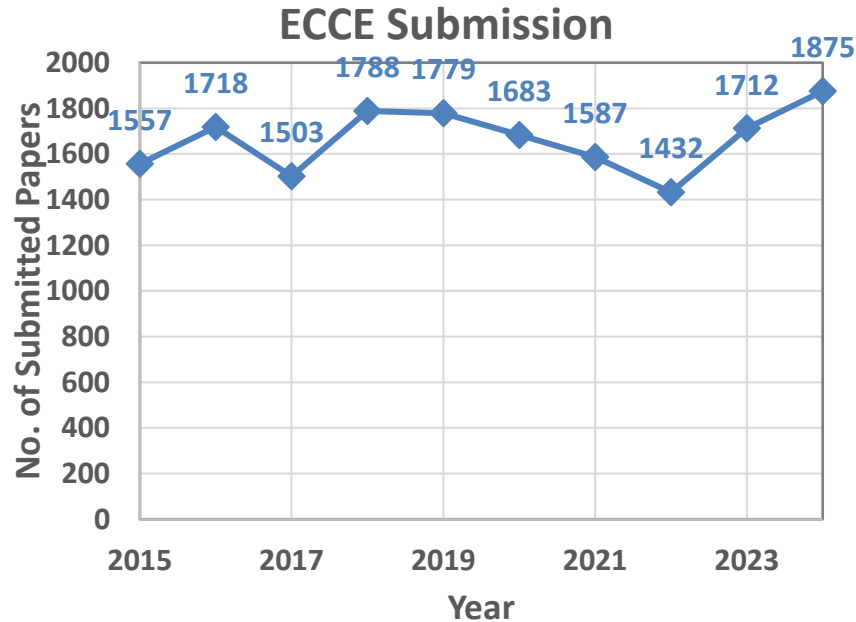
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1

2

2 papers (of 53) submitted to 2-page Late Breaking Research Publication are under track H

Yearly Submission Trends

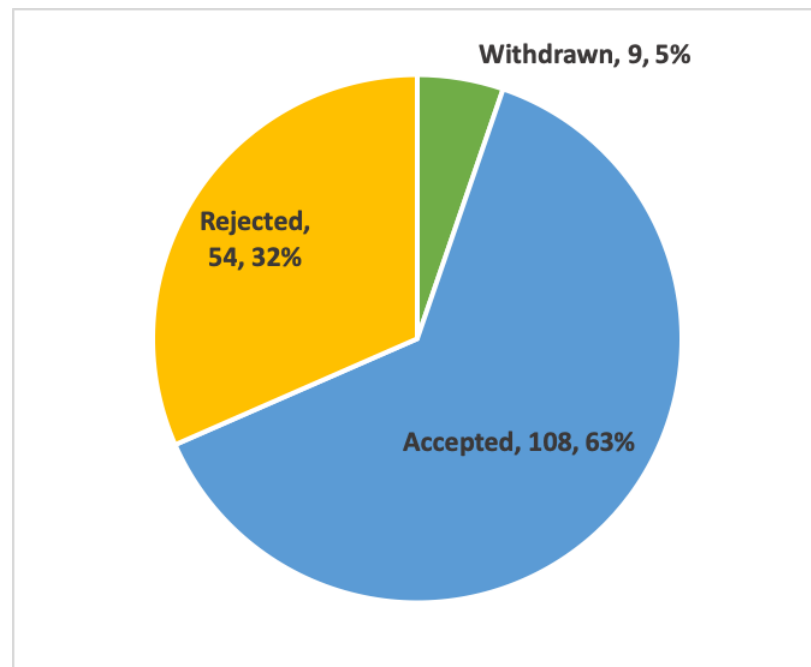


- 1875 submissions (new record)
- 19 special sessions
- 27 tutorial sessions

- 1 memorial session for Prof. Ned Mohan
- 2 sessions to recognize contributions by:
 - Dr. John Kassakian
 - Prof. Hirofumi (Hiro) Akagi

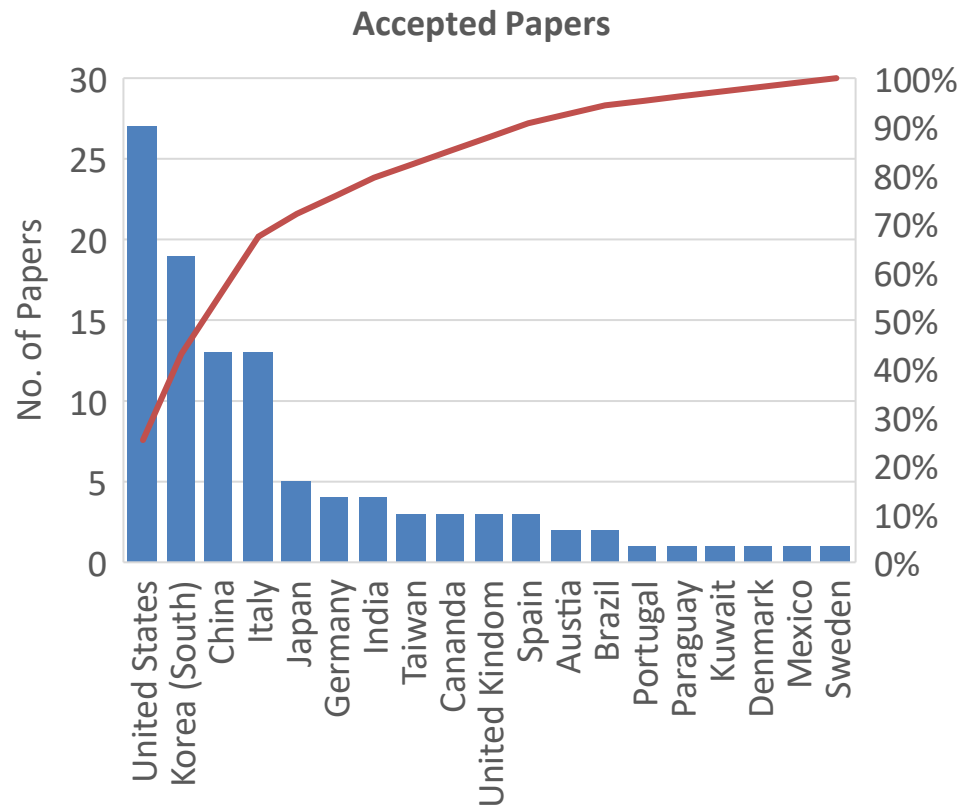
Overall Statistics (2024)

- Number of digests: 169 + 2
- Number of papers withdrawn: 9
- Number of papers accepted: 108
- Number of papers rejected: 54
- The acceptance ratio is 63% for 171 papers (vs 64% 2023).
- 108 accepted papers were distributed into 10 technical sessions and 3 poster sessions
- Review Quality:
 - All papers with at least 3 reviews
 - The average number of reviews per paper is 4.4 (4.0 last year and 4.5 for ECCE2022).

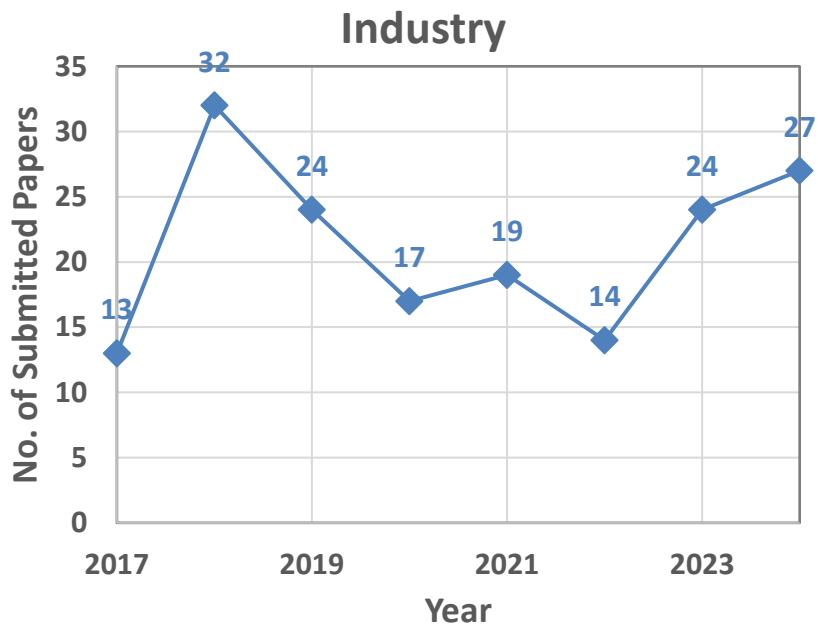


Distribution of Accepted Papers from First Author

- Top 5 accepted papers come from: United States (27), Korea (19), China (13), Italy (13), Japan (5).



Industry Papers Submission Statistics



- 27 submitted, 18 accepted
- Industry papers acceptance rate
 - 2024: 67%
 - 2023: 67%
 - 2022: 35.7%

More details will be presented in IDC Meeting on Tuesday !

IPCSD

Industrial Power Converters Committee

(IPCC)

IPCC Chair: Yongsug Suh, Jeonbuk Nat'l Univ., Korea

Phoenix, AZ, United States
October, 2024

Committee Officers

Chair	Yongsug Suh	yongsug.suh@gmail.com
★ Vice-Chair	Wenkang Huang	wkhuang@ieee.org
Secretary	Marco di Benedetto	marco.dibenedetto@uniroma3.it
Past Chair	Xiaonan Lu	xiaonan.lu@ieee.org

Industrial Power Converter Subcommittees

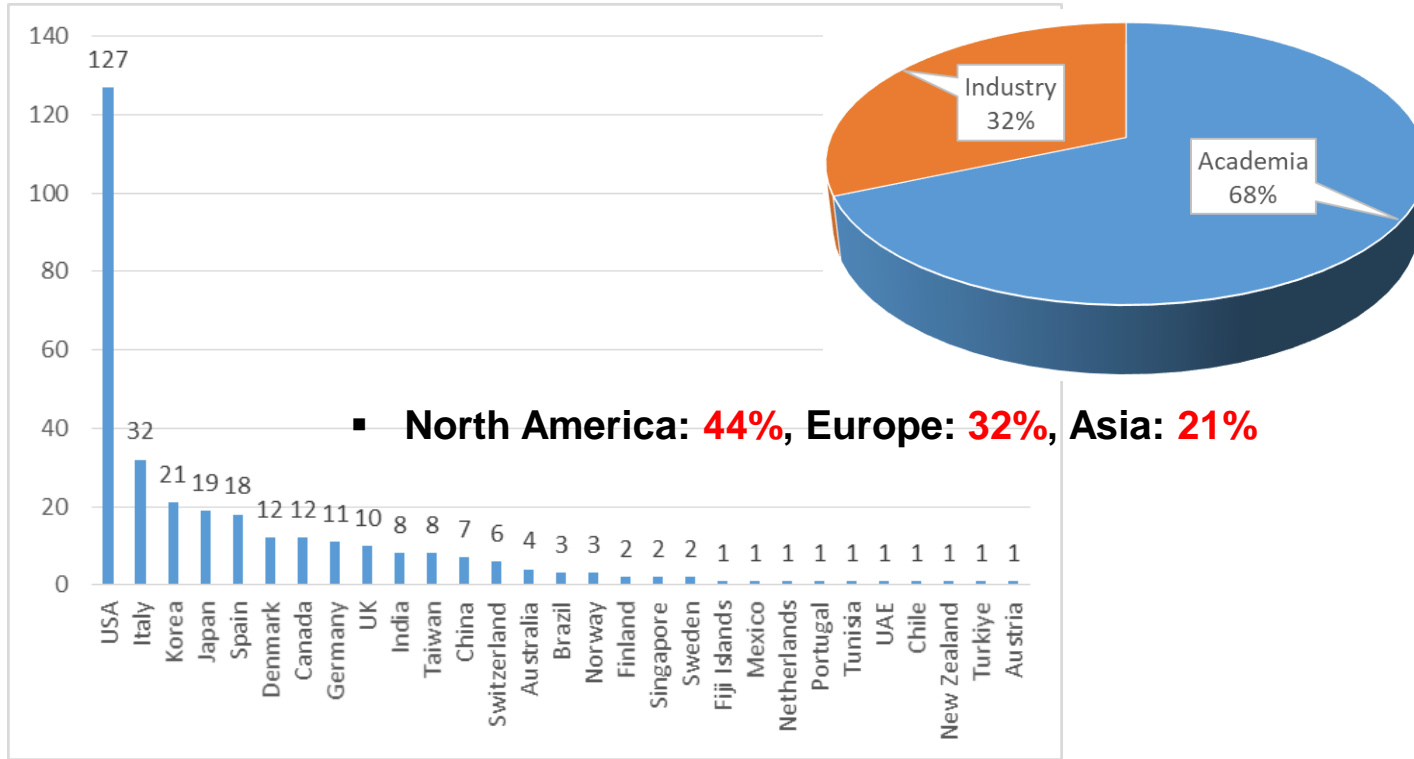
Transactions Review Chair	Stefano Bifaretti	stefano.bifaretti@uniroma2.it
Transactions Review Co-Chair	Shafiq Odhano	shafiq.odhano@newcastle.ac.uk
★ Fellow and Award Nominating Chair	Robert N. Guenther	rnguenther@gmail.com
Standards Chair	Lee Empringham	lee.empringham@nottingham.ac.uk
Special Activity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

IPCC Representative in IPCSD Working Group/Committee

- **Special Issue Proposals for JESTPE: Petros Karamanakos**
- **Conference Development Committee: Xiaonan Lu, Junichi Itoh**
- **DEIC (Diversity, Equity and Inclusion Committee): Elisabetta Tedeschi**
- **Standard – IEEE P3380**
 - Lee Empringham, Arman Oshnoei, Yuhua Du, Woojin Kang

- **Membership roster is at 470 (+25 newly registered since last meeting)**
 - Active members: 317 (67%)
 - Temporarily inactive members: 153 (33%)
- **Definition of temporarily inactive members**
 - According to IPCC Operating Guide (Section II, D Maintaining Membership)
 - In order to keep the member service efficient and focused
 - Temporarily inactive members have been sorted who did not meet minimum standards for active participation and no response to membership confirmation email (no attendance at annual meeting and no participation in subcommittees including TPC of ECCE NA for last 10 years)
 - Temporarily inactive members can come back to active members by meeting minimum standards at any time



2024 ORGANIZING COMMITTEE

■ **General Chair**
Rolando Burgos
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and Science, Portugal
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★ **IPCC involvement**

Power Converter Topologies

- ★ **Vice Chair:** Wenkang Huang, *Infineon Technologies, USA*
- Vice Chair:** Yongsug Sug, *Jeonbuk National University, South Korea*
- Vice Chair:** Fei Lu, *Drexel University, USA*
- ★ Binesh Kumar, *Atom Power Inc., USA*
- ★ Amr Mostafa, *Lockheed Martin, USA*
- ★ Reza Kheirollahi, *Tesla Motor, USA*
- ★ Hang Dai, *General Electric, USA*
- ★ Yao Wang, *Nanyang Technological University-Singapore, Singapore*
- Hua Zhang, *Rowan University, USA*
- Xiaofeng Yang, *Beijing Jiaotong University, China*
- Suyong Chae, *Pohang University of Science and Technology, Korea*
- Jeehoon Jung, *Ulsan National Institute of Science and Technology, Korea*
- Mohammed Agamy, *State University of New York at Albany, USA*
- Mahima Gupta, *Portland State University, USA*
- ★ Winway Chen, *Alpha and Omega Semiconductor, USA*
- ★ Yeonho Jeong, *University of Rhode Island, USA*
- ★ Tianjiao Liu, *Onsemi, USA*
- ★ Santanu Mishra, *India Institute of Technology Delhi, India*
- ★ Shuilin Tian, *Innoscence Incorporated, USA*
- ★ Dongbin Hou, *Texas Instruments, USA*
- ★ Yan Li, *Penn State University, USA*
- ★ Shuyan Zhao, *ABB, USA*
- Liping Guo, *Northern Illinois University, USA*
- Manuel Arias, *University of Oviedo, Spain*

Regular paper

- Submitted 271
- Accepted (final) 160
- Percentage 59.0%

Two-page Late Break Research

- Submitted 5
- Accepted (final) 5

★ Industry Members

Control, Modelling and Optimization of Power Converters

Vice Chair: Stefano Bifaretti, *University of Rome Tor Vergata, Italy*

- ★ **Vice Chair:** Yonghao Gui, *Oak Ridge National Laboratory, USA*
- Vice Chair:** Subham Sahoo, *Aalborg University, Denmark*
- Xiaonan Lu, *Purdue University, USA*
- Alessandro Lidozzi, *University of Roma Tre, Italy*
- ★ Francisco D. Freijedo, *Huawei Technologies, Germany*
- Petros Karamanakos, *Tampere University, Finland*
- Mandriale Fabio, *Politecnico di Torino, Italy*
- ★ Rashmi Prasad, *GM Research and Development, USA*
- Mateja Novak, *Aalborg University, Denmark*
- ★ Dingrui Li, *ABB, USA*
- ★ Wenzong Wang, *Electric Power Research Institute (EPRI), USA*
- ★ Le Kong, *Monolithic Power Systems, Inc., USA*
- Yajuan Guan, *Aalborg University, Denmark*
- Qiao Peng, *Sichuan University, China*
- ★ Minghui Lu, *Pacific Northwest National Laboratory, USA*
- Jinhao Meng, *Xi'an Jiaotong University, China*
- ★ Jaldanki Sreenivasa, *Oak Ridge National Laboratory, USA*
- Yuzhuo Li, *University of Alberta, Canada*
- Rui Wang, *Northeastern University, China*
- Hua Zhang, *Rowan University, USA*

Regular paper

- Submitted 267
- Accepted (final) 189
- Percentage 70.8%

Two-page Late Break Research

- Submitted 5
- Accepted (final) 5

★ Industry Members

- IPCC Standards Chair Lee Empringham (University of Nottingham)
- Extensive discussions this year with Variable Speed Drives and Integrated Drives manufacturers – both AC driven and DC grid driven power converters
 - Identified various areas to target for new standards projects
 - Power Quality, Energy Efficiency, EMI
 - 3 PAR's submitted
- Project in preparation: Standard for EMI emissions fed by DC grids in Industrial installations
- UPDATE: PAR P3380 – Data Center Converter Stability
 - IPCC volunteers recruited (Industry/Academia)
 - No Activity from organisers

- **Special activities co-chairs**
 - Elisabetta Tedeschi, Tianqi Hong, Lisa Qi
- **1. Special session at ECCE24** (October 21, 2024)
 - **“Empowering Sustainable Futures: The Critical Role of Power Electronics in Energy and Industry”**
co-organized by Yonghao Gui & Tianqi Hong
- **2. IEEE-IAS Webinar on**
 - **“Passivity and Dissipativity as Design Objectives for Control of Grid-Connected VSCs”**
offered by **Dr. Lennart Harnefors**, on March 6, 2024
co-organized by P. Karamanakos & E. Tedeschi
- **3. Representation of the IAS-IPCC in the IAS-IPCSD Diversity, Equity and Inclusion Committee to promote and enhance Diversity, Equity & Inclusion practices within IPCSD and its technical committees**

- Mohammed Agamy, USA
- Vivek Agarwal, India
- Manuel Arias, Spain
- Dong Cao, USA
- Andrea Formentini, Italy
- Francisco Freijedo, Germany
- Feng Guo, USA
- Tianqi Hong, USA
- Fabio Immovili, Italy
- Petros Karamanakos, Finland
- Alessandro Lidozzi, Italy
- Bo Liu, USA
- Xiaonan Lu, USA
- Shafiq Odhano, UK
- Sante Pugliese, Germany
- Luca Solero, Italy
- Priyabrata Shaw, India
- Mi Tang, UK
- Luca Tarisciotti, Chile
- Cristina Terlizzi, Italy
- Young-Doo Yoon, Rep. of Korea

All the TIA Associate Editors for IAS-IPCC have been included in the Awards Subcommittee, except who did not accept the invitation. Papers have been managed to avoid any conflicts with the co-authors who have papers in the competition.

- 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 134 papers for Track F)
- Nominally, **Top 10 papers from Track E and Top 10 papers from Track F have to be preselected based on the digests' average score**
- **Top 17 papers from Track E and Top 13 papers from Track F have been evaluated by the Awards Subcommittee**
- Discrepancies on the number of papers are due to the equal average scores obtained by the papers ranked over the 10th position
- Criteria for papers evaluation:

1. Degree of novelty 2. Presentation 3. Industrial impact

Final Ranking 2024 IPCC ECCE Awards

Rank	Authors	Paper Title
1	Petros Karamanakos, Mirza Abdul Waris Begh, Shirin Rahmanpour, Tobias Geyer	Gradient-Based Predictive Pulse Pattern Control for Grid-Connected Converters with LCL Filters
2	Xin Lou, Feiyang Zhu, Zheqing Li, Qiang Li, Fred C. Lee	Single-Stage 48 V/1.8 V Coupled-Transformer Voltage Regulator (CTVR)
3	Daniel Chavez, Damian Sal y Rosas, Julio Tafur	Single-Stage Quad-Active-Bridge Series-Resonant AC-DC Converter: Modulation for Active and Reactive Power

2024 TIA Prize Rules

- Papers submitted for review through the IPCC and published in 2023 are eligible
- According to the 2022 IPCSD guidelines, to reduce the workload of the Awards Subcommittee (about 100 papers published in 2023), papers have been preselected based on the M-score provided in the Manuscript Central
- **Top-10 papers have been included in the ballot**
- Criteria for papers evaluation:
 1. Degree of novelty
 2. Presentation
 3. Industrial impact

Final Ranking for 2024 IPCC Transactions on Industry Applications Papers Awards

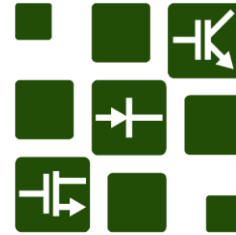
Rank	Authors	Paper Title
1	Jacopo Riccio, Petros Karamanakos, Shafiq Odhano, Mi Tang, Mauro Di Nardo, Pericle Zanchetta	Direct Model Predictive Control of Synchronous Reluctance Motor Drives
2	Arup Ratan Paul, Arghyadip Bhattacharya, Kishore Chatterjee	A Novel Single Phase Grid Connected Transformer-less Solar Micro-inverter Topology with Power Decoupling Capability
3	Emerson L. Soares, Cursino B. Jacobina, Nady Rocha, Victor Felipe M. B. Melo	Dual Converter Operating with Floating Capacitors Connecting Open-End Winding Doubly-Fed Induction Generator to the DC-Microgrid



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PEDCC Committee IPCSD Meeting @ECCE

October 20th, 2024

3.30 PM to 6 PM Arizona time

Room 127C

Francesco Iannuzzo, Aalborg University

PEDCC Chair, 2022-2024 term





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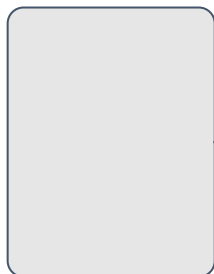
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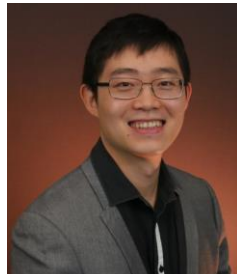
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PEDCC Officers for the 2025-2027 term (1/2)



Dr. Francesco Iannuzzo
Aalborg University, Denmark



Dr. Zheyu Zhang
Rensselaer Polytechnic Institute, USA



Dr. Jose Gonzalez
University of Warwick, UK



PEDCC Immediate Past Chair

PEDCC Chair

PEDCC Vice-Chair

PEDCC Secretary

Secretary Nominees



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PEDCC Officers for the 2025-2027 term (2/2)



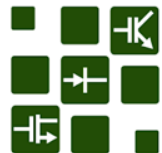
Dr. Zhiqiang (Jack) Wang
PEDCC Transaction Chair



Dr. Enrico Santi
PEDCC Transaction Co-Chair



Dr. Sanjeevikumar (Sanjee) Padmanaban
Committee Award Chair



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ECCE 2024 Summary Report

Dr. Zheyu Zhang



ECCE 2023 Topic 'I'

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

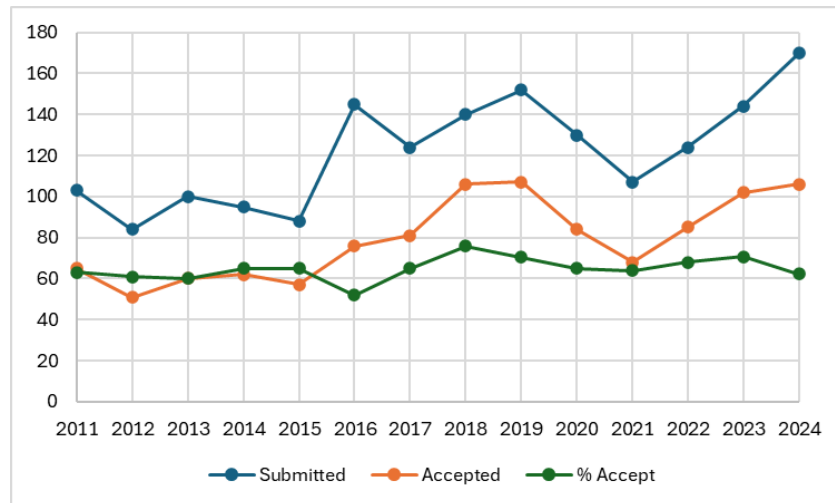
106 accepted, out of 170 digests submitted

62.4% acceptance – reduced compared with the last 7 years primarily due to the all-time high number of submission since 2011

High-quality review: average 4.5 reviews per paper, remaining the same as last year

Comparison with prior years

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Submitted	103	84	100	95	88	145	124	140	152	130	107	124	144	170
Accepted	65	51	60	62	57	76	81	106	107	84	68	85	102	106
% Accept	63	61	60	65	65	52	65	76	70.4	65	64	68	70.8	62.4





ECCE 2023 Topic ‘I’

Vice Chairs

Francesco Iannuzzo, Aalborg University, Denmark

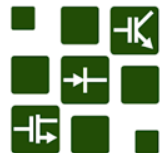
Zheyu Zhang, Beihang University, USA

Christina DiMarino, Virginia Tech, USA

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

Topic Chairs

First name	Last name	Affiliation
Jose	Gonzalez	University of Warwick
Tanya	Gachovska	MDA
Helen	Cui	Tianjin University
Xiaoqing	Song	University of Arkansas
Jessica	Boles	University of California, Berkeley
Bo	Liu	Raytheon Technologies Corporation
Shu	Yang	Zhejiang University
Laili	Wang	Xi'an Jiaotong University
Amy	Romero	Wolfspeed
GQ	Lu	Virginia Tech
Dakai	Wang	Delta Electronics
Jingcun	Liu	Infineon
Francesco	Iannuzzo	Aalborg University
Haiguo	Li	Delta Electronics
Fei	Yang	Texas Instruments



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IAS Transactions Chair Report

Dr. Zhiqiang (Jack) Wang

Huazhong University of Science and Technology



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Manuscripts Received (Oct. 2023 ~ Sep. 2024)

Dates	Original Submissions	Revised Submissions	Total Submissions
Oct 2023/Sep 2024	37	36	73
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. 2023 ~ Sep. 2024)

Country/Region	Accept	Reject	Total	Accept Ratio
China	7	3	10	70.00%
Denmark	3	0	3	100.00%
Estonia	0	1	1	00.00%
India	2	4	6	33.33%
Japan	4	2	6	66.67%
Spain	1	0	1	100.00%
Taiwan	1	0	1	100.00%
United Kingdom	1	1	2	50.00%
United States	5	1	6	83.33%
Total	24	12	36	66.67%



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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
Donghai Zhu	Huazhong University of Science and Technology, China
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
Zhiqiang (Jack) Wang	Huazhong University of Science and Technology, China

Thanks a lot for the hard work!



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Awards Chair Report

Dr. Sanjee Padmanaban

University of South-Eastern Norway



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IAS Outstanding Achievement Award

- This award honours an individual who has made an outstanding contribution in the application of electricity to industry in accordance with the scope of the IEEE Industry Applications Society. This award was first presented in 1969.

Nominated: Florin Udrea, University of Cambridge, UK (unsuccessful)

IAS Distinguished Service Award

- This award recognizes an individual for **dedication and service to the IEEE Industry Applications Society**. Exceptional administrative, managerial and leadership achievement; proposal and/or implementation of innovative new Society programs; dedication to the growth and advancement of the Society and/or its geographic and technical entities.

No nominations in 2024



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IAS Outstanding Educator/Mentor Award

- This award honours an individual who has made an outstanding contributions to education and mentorship of students and young engineers within the fields of interest of the IEEE Industry Applications Society.

Nominated Vivek Aganwal, IIT Bombay, India (Unsuccessful)

IAS Andrew W. Smith Outstanding Young Member Achievement Award

- This award recognizes outstanding achievement and contribution to the profession through involvement in IEEE IAS activities by an IAS member less than 35 years of age.

No nominations in 2024



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IEEE IAS Outstanding Young Member Service Award

- This award (established in 2015) recognizes outstanding service and contribution to the profession through involvement in IEEE IAS activities by an IAS member less than 35 years of age.

No nominations in 2024

IAS Gerald Kliman Award

- This award is named in honour of Dr Gerland Kliman, in memory of his many contributions and innovations to these technical areas. The award may be presented annually to an individual for meritorious contributions to the advancement of power conversion technologies through innovations and their application to industry..

No nominations in 2024



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PEDCC Standards

Drs. Tanya Gachovska, Xiaoqing Song, and Dr. Pratibha Sharma



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IEEE IAS PEDCC Standards

Standard Chair, Dr. Tanya Gachovska; Standard Vice Chair, Dr. Xiaoqing Song

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)



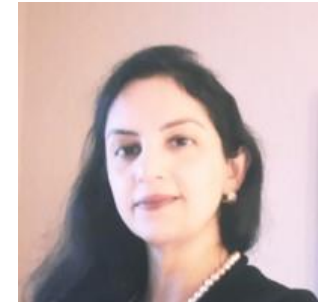
Dr. Tanya Gachovska
Standard Chair

Chairs of Driver and UV LED standards



Dr. Xiaoqing Song
Standard Vice Chair

Vice Chair of Driver standard

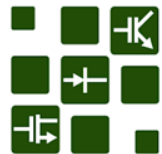


Dr. Pratibha Sharma
Vice Chair of UV LED standard



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

- The standard development was kicked off on January 22, 2020 with six members
- The PAR has been approved by IEEE SA Standards Board on September 24, 2020
- Currently we have 11 voting members working in a monthly basis
- Working progress
 - Three subgroups created with different emphasis
 - Group 1 – Absolute maximum ratings, completed
 - Group 2 – Insulation, completed
 - Group 3 – Dynamic electrical parameters and test conditions, in progress
 - A 62-page working document has been generated and commented by the team and sent to some driver companies for advice and comments.
 - The team successfully organized a special session at ECCE 2021, ECCE2024 to provide updates



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.

Stakeholders: UV LED manufacturers and solution providers, Product developers and engineers of UV LED based devices and systems (e.g. companies producing air and water disinfection systems, lighting fixtures, curing systems, etc.), academia and research institutes, and everyone who is using UV LEDs in their applications.



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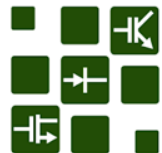
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Working Group Status

- The standard development was kicked off on September 2, 2020, with seven members
- The PAR was approved by IEEE SA Standards Board on September 23, 2021
- Now, we have 20 members with a diverse backgrounds of electrical engineering, physics, biology, and testing/characterization.
- Standard is being actively drafted and saved on iMeetCentral platform (IEEE)
- 5 meetings held since January 2024.

Contacts: Tanya Gachovska, tgachovska@yahoo.com
Pratibha Sharma, pratibha@violumas.com
Jeff Hulett, jhulett@vektrex.com



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IEEE-IAS IPCSD DEIC

Dr. Pratibha Sharma



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

- Committee 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 talents and perspectives of people with different personal, cultural, and disciplinary backgrounds”.
- Chair appointed by the IPCSD Chair
- One member from each IPCSD TC
- Liaisons: Africa, North Africa, India, South America, Europe

For further information contact: Dr. Pratibha Sharma (pratibha@violumas.com)



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IPCSD DEIC Activities

Launched Student Design Contests in India and Africa

Design topics <ul style="list-style-type: none"> 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. 	<p>IEEE IAS-IPCSD Engineering Student Chapter Design Contest (Africa) 2024</p> <p>\$2000 each (three awards)</p>	Who can apply <p>All IEEE Students/ Members of African Student Chapters.</p> <ul style="list-style-type: none"> Teams: 4 to 6 IEEE students/graduate members, including Team leader. At least one student member of the IEEE IAS. Women lead role has preference. Diverse team encouraged. The design must provide a practical solution and within the scope of the IEEE IAS. 	
APPLY NOW Apply to contribute to technological advancement for humanity. https://its.ieee.org/ias/ipcsd/africa/	Application Deadline: Aug 1, 2024 Awards Announcement: Sept 1 <p>IPCSD-DEIC Liaison for Africa iasipcsd.africa@ieee.org</p>	Submission requirements <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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.

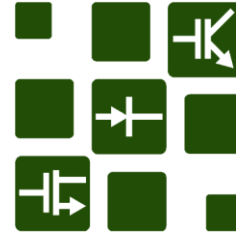
Design topics <ul style="list-style-type: none"> Components and systems for motor drives. Renewable energy power conditioning systems. Components and systems for transportation electrification. Power electronics for energy efficiency and to reduce fossil fuel consumption. Functional apps related to motor/renewable energy/transportation electrification systems. IoT devices. 3D printings or rapid model. Wireless PCB prototypes. 	<p>IEEE IAS-IPCSD Engineering Student Chapter Design Contest (India) 2024</p> <p>\$2000 each (three awards)</p>	Who can apply <p>All IEEE Student/ Members of Indian Student Chapters.</p> <ul style="list-style-type: none"> Teams: 4 to 6 IEEE students/graduate members, including Team leader. At least one student member of the IEEE IAS. Women lead role has preference. Diverse team encouraged. The design must provide a practical solution and within the scope of the IEEE IAS. 	
APPLY NOW Apply to contribute to technological advancement for humanity. https://its.ieee.org/ias/ipcsd/india/	Application Deadline: Aug 1, 2024 Awards Announcement: Sept 1 <p>IPCSD-DEIC Liaison for India iasipcsd.india@ieee.org</p>	Submission requirements <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Innovation and impact on Indian regions. 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
 - Africa Liaison attended Power Africa 2023
 - Travel Grant for 10 African students to attend the R8 SYP in Grenoble, France, July 2024
- 2025 activities: Student Design Contests
- Africa, India (extend to Bangladesh, Pakistan?),
 - South America
 - Liaisons travel Grants –Power Africa 2025
 - Relevant 2025 conference in South America

Ideas and Suggestions are welcome!

Contact: Dr. Pratibha Sharma (pratibha@violumas.com)



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Thank you

Francesco Iannuzzo, Aalborg University
PEDCC Chair, 2022-2024 term

Contact and info: Jose Gonzalez (joseortiz@ieee.org), PEDCC Secretary





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

IPCSD Annual Meeting

20 October 2024

Chair – **Ke Ma**, China

Vice Chair and TCPRC – **Eduard Muljadi**, USA

Vice Chair of Conferences – **Behrooz Mirafzal**, USA

Secretary – **Dinesh Kumar**, Denmark

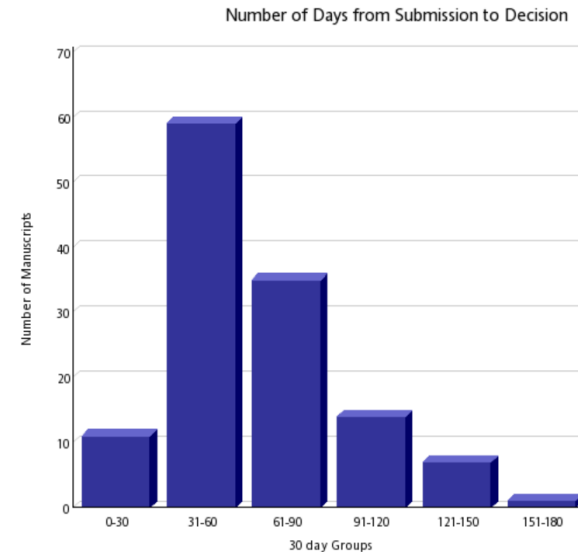
Immediate Past Chair – **Akshay Kumar Rathore**, Singapore

Publications Chair Report

- New Manuscripts submission to Renewable and Sustainable Energy Conversion Systems Committee:
 - **54 original + 24 revised = Total 78 (Oct. 2023 to Oct. 2024)**
 - **29 with decisions**
- Average Submission to First Decision Time: **77 days** (76 days last year)

Eduard Muljadi

Took over since Oct. 2023



RSECS Acceptance Rate

Submission to Renewable and Sustainable Energy Conversion Systems Committee

Oct. 2023 to Oct. 2024

Industrial Power Conversion Systems Department	Accepted in Magazine	Accepted in Transactions	Reject	Acceptance Rate	Total
Renewable and Sustainable Energy Conversion Systems Committee	1	36	43	46.25%	80

JESTPE Special Issues Activities

- **Call for Papers - IEEE Journal of Emerging and Selected Topics in Power Electronics (coming soon) – Medium Voltage Power Converter for Grid Electrification**
- **This special issue explores the latest advancements, challenges, and future directions in medium-voltage power converter technologies for grid electrification.**

Topics of interest include, but are not limited to:

- Medium-voltage converters for renewable energy (solar PV, wind, etc.)
 - Medium-voltage converter technologies for energy storage systems (battery, supercapacitor)
 - Grid integration and smart grid applications of medium-voltage converters
 - Medium-voltage drives for industrial applications (motors, compressors, pumps)
 - Applications of medium-voltage converters in electric transportation (railways, marine, electric aircraft)
 - Converter topologies and control strategies for medium-voltage systems
 - Fault-tolerant designs and reliability improvements for medium-voltage power converters
 - Power quality improvement and harmonic mitigation in medium-voltage systems
 - Medium-voltage DC systems (MVDC) for grid and industrial applications
- Emerging trends in medium-voltage power converter technologies (wide-bandgap devices, modular converters, hybrid AC-DC grids)
- **Guest Editors: Eduard Muljadi and Adel Nasiri**

IEEE IAS RES Committee Participations

Track A - Renewable and Sustainable Energy Applications	Track B - Smart Grid and Utility Applications
<p>Vice Chairs: Gab-Su Seo, Liliana De Lillo, and Behrooz Mirafzal</p>	<p>Vice Chairs: Joseph Benzaquen, Giovanni De Carne, and Sanjib Kumar Panda</p>
<p>Topic Chairs: 14 in total: Rahul Mallik, Vikram Roy Chowdhury, King Man Siu, Giacomo Sala, Aswad Adib, Fahmid Sadeque, Luca Vancini, Beeond M. Saleh, Fatma Khera, Azlia Abdul Rahman, Zaid Parry, Norma Anglani, Xiaojie Shi, Cristina Terlizzi</p>	<p>Topic Chairs: 14 in total: Sante Pugliese, Muhammad Umair, Vikram Roy Chowdhury, Qianwen Xu, Angel Navarro, Tan Nadia, Hadidi Ramtin, Bhaskar Karanki Srinivas, Kaushik Basu, Vishal Anand, Satish Belkhode, Riccardo Liuzzi, Wei Du, Mariko Shirazi</p>
<p>Total Digest Submission: 173</p>	<p>Total Digest Submission: 259</p>

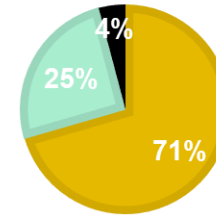
Track A - Renewable and Sustainable Energy Applications

Statistic:

Paper Status	Count	Percentage
Final Accepted	122	70.5%
Rejected	44	25.5%
Withdrawn	7	4.0%
Total Submission	173	100%

TRACK A

■ Accepted ■ Rejected ■ Withdrawn



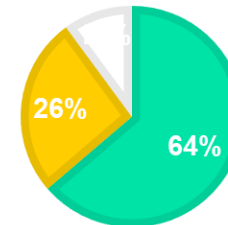
Track B - Smart Grid & Utility Applications

Statistic:

Paper Status	Count	Percentage
Final Accepted	165	63.71%
Rejected	68	26.25%
Withdrawn	26	10.04%
Total Submission	259	100%

TRACK B

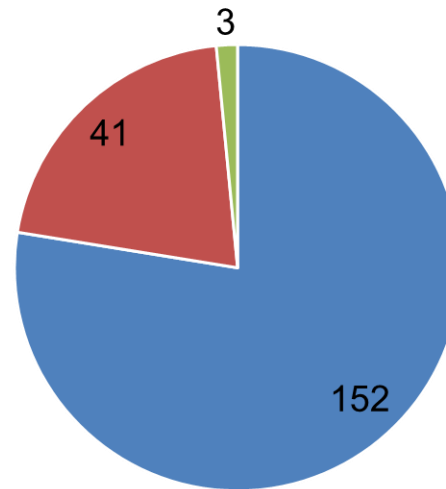
■ Accepted ■ Rejected ■ Withdrawn



Member development

- A membership campaign is currently underway to invite new members to join the committee.
- A total of 196 members have registered so far.

Committee members



■ Academia ■ Industry ■ National Lab

Committee Website

- The committee's website is currently being recovered and updated:
<https://site.ieee.org/ias-crsecs/>
- Recent committee news can be found at: <https://site.ieee.org/ias-crsecs/news/>

The screenshot shows the top navigation bar of the IEEE IAS Committee website. It includes a light blue header with links to IEEE.org, IEEE Xplore Digital Library, IEEE Standards, IEEE Spectrum, and More Sites. Below this is a dark blue navigation bar with the following menu items: ORGANIZATION, WELCOME (underlined), PAPERS FOR IEEE IAS TRANSACTIONS, NEWS, OPERATING GUIDE, and MEETING MINUTES. The main content area features the title 'IEEE IAS Committee on Renewable and Sustainable Energy Conversion Systems' on the left, a search icon and the IEEE logo on the right, and a dark blue navigation bar with the same menu items as above.

The IEEE IAS **R**enewable and Sustainable **E**nergy Conversion **S**ystems (RES) Committee has been established in 2011 and is responsible for all matters within the scope of the IAS in which the emphasis or dominant factor specifically relates to the design, analysis, manufacture and use of electric devices and systems for renewable and sustainable energy conversion industrial applications. Topics include, but are not limited to, electric generators and drives for wind turbines, ocean/marine and other renewable and sustainable energy harvesting systems, photo-voltaic, energy storage and micro-grid devices and associated electrical energy conversion systems.

Committee Shared Folder

- To enhance communication and collaboration among committee governing members, a shared folder has been created to store all records.

The screenshot displays the Google Drive interface. On the left sidebar, the 'My Drive' section contains a folder named 'IEEE IAS RSECS'. Below it, several sub-folders are listed, including 'Annual Meeting Slid...', 'Bylaws and Guides', 'Chair', 'Committee Acronym', 'ECCE Paper Review', 'Meeting Minutes', 'Members database', 'Secretary', and 'Technical Committe...'. The main area shows a 'Welcome to Drive' message and a search bar. Below the search bar, there are filters for 'Type', 'People', 'Modified', and 'Location'. The 'Suggested folders' section shows the 'IEEE IAS RSECS' folder. The 'Suggested files' section contains a table of files.

Name	Reason suggested	Owner	Location
IAS-IPCSO Editorial Meeting_RSESC 2023.ppt	You opened • 14:37	me	ECCE 2023 IAS meeting
RSECS Annual Meeting 2023.ppt	You created • 13 Sept 2024	me	ECCE 2023 IAS meeting
RSECS Annual Meeting 2023 km.ppt	You created • 13 Sept 2024	me	ECCE 2023 IAS meeting
RECS-Database-Oct_2024.xlsx	You uploaded • 6 Oct 2024	me	Members database
RECS-Database-2024.xlsx	You edited • 17 Sept 2024	me	Members database
How to login and edit this Drive.docx	You opened • 13 Sept 2024	me	IEEE IAS RSECS
Website login	You opened • 12 Sept 2024	me	Chair
IAS RES Annual Report ECCE 2021_Yilmaz.ppt	You uploaded • 13 Sept 2024	me	RESC meeting 2021.10
IAS RES Annual Report ECCE 2020.ppt	You uploaded • 13 Sept 2024	me	RESC meeting 2021.10

Problem in committee name and acronyms

- **Current:** Renewable and Sustainable Energy Conversion Systems Committee (RSECSC, RSECS, RECSC, RES,...)
- **Suggested:** Renewable Energy Systems Committee (**RESC**)

Committees under IAS Industrial Power Conversion Systems Department (IPCSD):

- Electric Machines Committee (EMC)
- Industrial Drives Committee (IDC)
- Industrial Power Converter Committee (IPCC)
- Power Electronics Devices and Components Committee (PEDCC)
- Transportation Systems Committee (TSC)
- Renewable and Sustainable Energy Conversion Systems Committee (RSECSC)
- Renewable Energy Systems Committee (RESC)



Motion

Committee name change from:

**Renewable and Sustainable Energy Conversion
Systems Committee**

to:

Renewable Energy Systems Committee (RESC)

Transportation Systems Committee (TSC) Activity Summary

October 20, 2024

TSC Chair: John Kisacikoglu, Ph.D.
National Renewable Energy Laboratory

Committee Officers – 2024-2025

Chair

Dr. John Kisacikoglu
National Renewable Energy Laboratory

Vice Chair (Papers)

Dr. Rakib Islam
American Axle & Manufacturing

Vice Chair (Conferences)

Dr. JiangBiao He
University of Tennessee

Secretary

Dr. Khorshed Alam
General Motors

Past Chair

Dr. Mohammad Anwar
General Motors

Subcommittee Officers

Award Subcommittee (2023-2024)

Chair: Dr. Dong Cao, University of Dayton

Vice-Chair: Dr. Khorshed Alam, General Motors

Standards Subcommittee (2025-2026)

Dr. Marium Rasheed, Ford Motor Company

Webmaster (2024-2025)

Abdulmueen Alrashide, Florida International University



Key Updates from Past Year

TSC Website Update

- We selected a new webmaster, Abdulmueen Alrashide, Florida International University
- Completely revamped TSC website: <https://site.ieee.org/ias-tcs/>

TSC New Standards Chair

- Marium Rasheed, Ford Motor Company will help coordinate standards activities within TSC

Conference Outreach

- John Kisacikoglu (chair) and JiangBiao He (vice chair) attended and presented on TSC activities at PELS TC4 at ITEC
- JiangBiao He (vice-chair) appointed as steering committee chair for ITEC-Asia Pacific 2025-2026

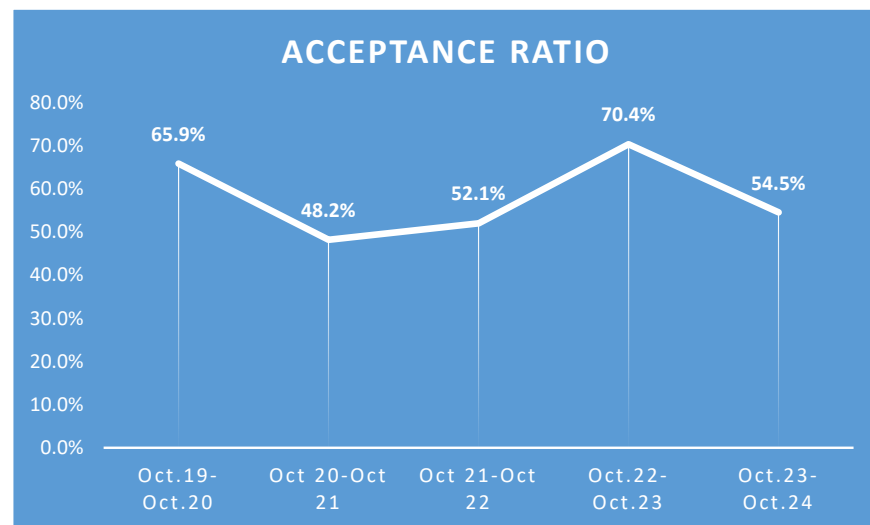
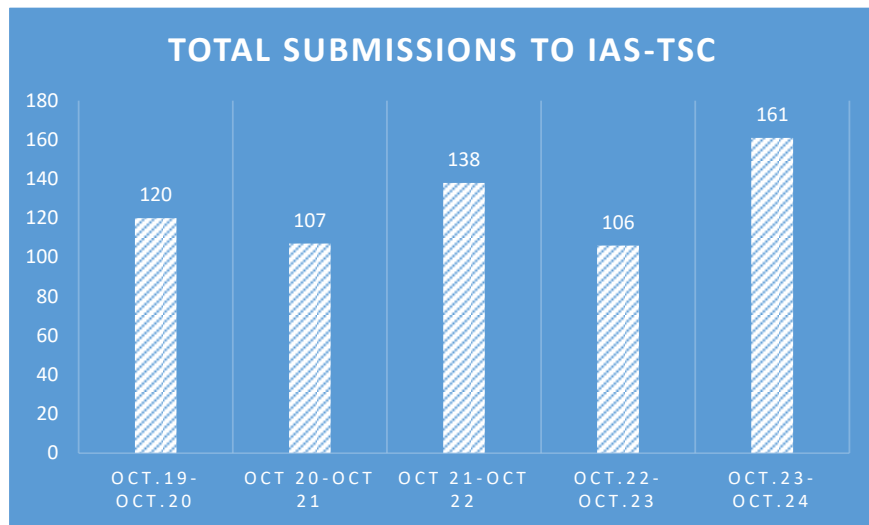
Committee Documents in Box Cloud

- All ongoing and archival documents are available to officers in Box shared folder
- Provides a synchronized working environment for all officers

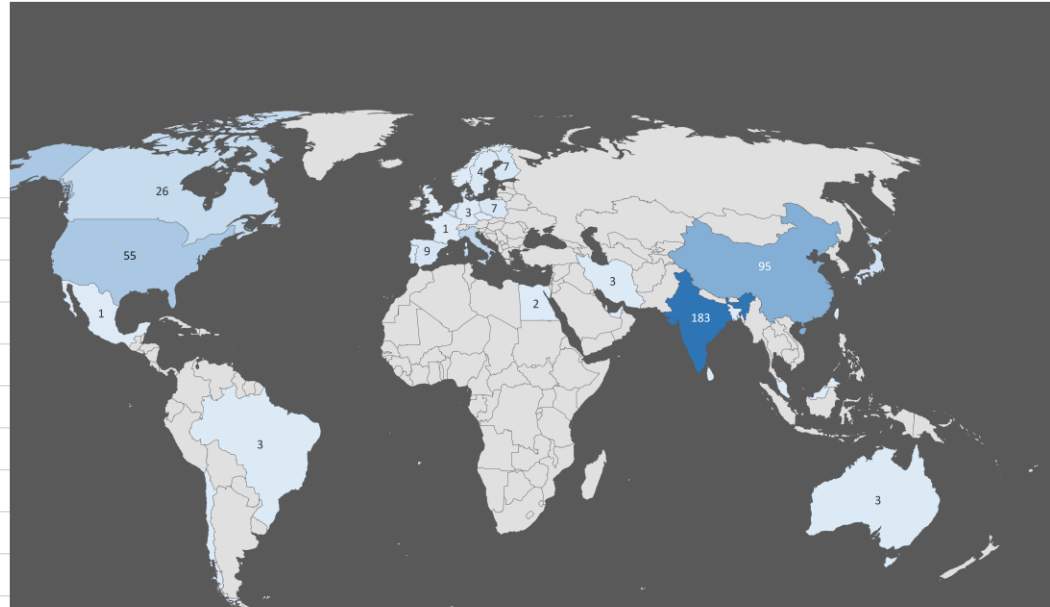
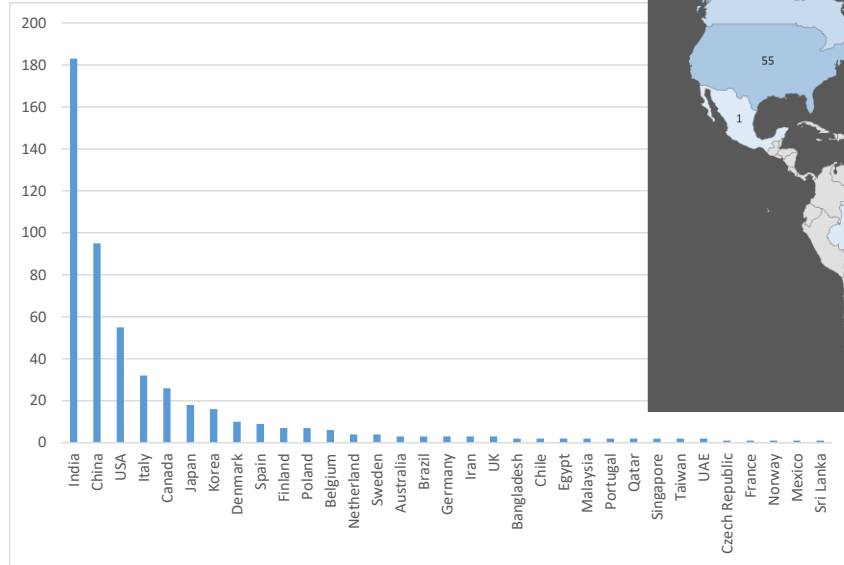
Other

- Monthly Committee Coordination Meetings to Sync up with committee and subcommittee officers
- TSC membership database moved to Google Groups
- Total members as of Oct 2024 is **329** (*increased from 270 members in 2023*).

Transaction Paper Review: Manuscript Status (Last Five Years)



Transaction Paper Submission per Country (Last Four Years)



ECCE 2024 – Transportation Electrification Applications

- Track-D in ECCE-2024 received the most digest submission in past 6 years.
- 10 oral sessions are organized for Track-D, with each oral session having 5 papers.
- 4 poster sessions are organized for Track-D, covering rest 63 papers.

	Accepted Oral	Accepted Poster	Withdrawn	Rejected	Total	Acceptance Rate
ECCE-2024	50	63	9	55	177	63.84%
ECCE-2023	40	56	3	41	137	70.10%
ECCE-2022	46	9	4	19	78	70.50%
ECCE-2021	44 (virtual conf due to COVID)		3	21	68	64.70%
ECCE-2020	67 (virtual conf due to COVID)		10	37	114	58.80%
ECCE-2019	25	32	7	23	87	65.50%

ECCE 2024 – Transportation Electrification Applications

Session topics:

1. Inductive Wireless Power Transfer for Transportation - (1 oral session, 5 papers)
2. Capacitive Wireless Power Transfer for Transportation - (1 oral session, 5 papers)
3. Battery Management Systems for Transportation - (1 oral session, 5 papers)
4. On-Board Battery Chargers (1 oral session, 5 papers)
5. EV Charging Infrastructure - (1 oral session, 5 papers)
6. Hydrogen Fuel Cell Traction and Infrastructure - (1 oral session, 5 papers)
7. Hybrid and Electric Powertrains - (1 oral session, 5 papers)
8. Applications of Electric Traction and Propulsion - (1 oral session, 5 papers)
9. Electric Aircraft Propulsion Technologies (1 oral session, 5 papers)
10. Other Topics in Transportation Electrification (1 oral session, 5 papers)
11. Transportation Electrification (I, II, III, and IV) (4 poster sessions, 63 papers)

IEEE ECCE 2024

Phoenix Convention Center

Phoenix, AZ, Oct. 20-24

ECCE Steering Committee Meeting

General Chair, Rolando Burgos (rburgos@ieee.org)
General Co-Chairs, Sudip Mazumder & Pedro Rodriguez



Oct. 22, 2024



IEEE ECCE 2024 — Phoenix

(Conference record #55643)



- Convention Center:
<https://www.phoenixconventioncenter.com/>



- Exhibit Hall: 102,080 sq.ft.
- Ballroom: 2,024 people, 22,000 sq.ft.
- Ballroom foyer: 15,000 sq.ft.



IEEE ECCE 2024 — HOTELS



**Hyatt Regency
Phoenix**

**Renaissance Phoenix
Downtown Hotel**



Registration Status as of Oct. 16, 2024

Registration Type	Quantity
ECCE Society Members Early	499
ECCE Society Members Late	58
ECCE Members Early	72
ECCE Members Late	16
ECCE NonMember Early	86
ECCE NonMember Late	35
ECCE/IAS Society Members Early	14
ECCE/IAS Society Members Late	2
ECCE/IAS Members Early	0
ECCE/IAS Members Late	1
ECCE/IAS NonMember Early	1
ECCE/IAS NonMember Late	3
ECCE/IAS Life Members Early	30
ECCE/IAS Life Members Late	4
ECCE/IAS Member Students Early	508
ECCE/IAS Member Students Late	45
ECCE/IAS NonMember Students Early	78
ECCE/IAS NonMember Students Late	7



Technical Program Committee (TPC)

Paper Submissions

- Total submitted papers = 1,884
 - Regular digests = 1,801
 - 2-page paper briefs = 53
 - Post journal articles = 30

Review Process

- Accepted, final submissions = 1,171 (62.2 %)
- Rejected = 548 (29.1 %)
- Withdrawn = 165 (8.8 %)

Special Sessions

- Submitted = 32
- Accepted = 19 (14 x 100 min, 5 x 200 min)
 - Withdrawn = 6



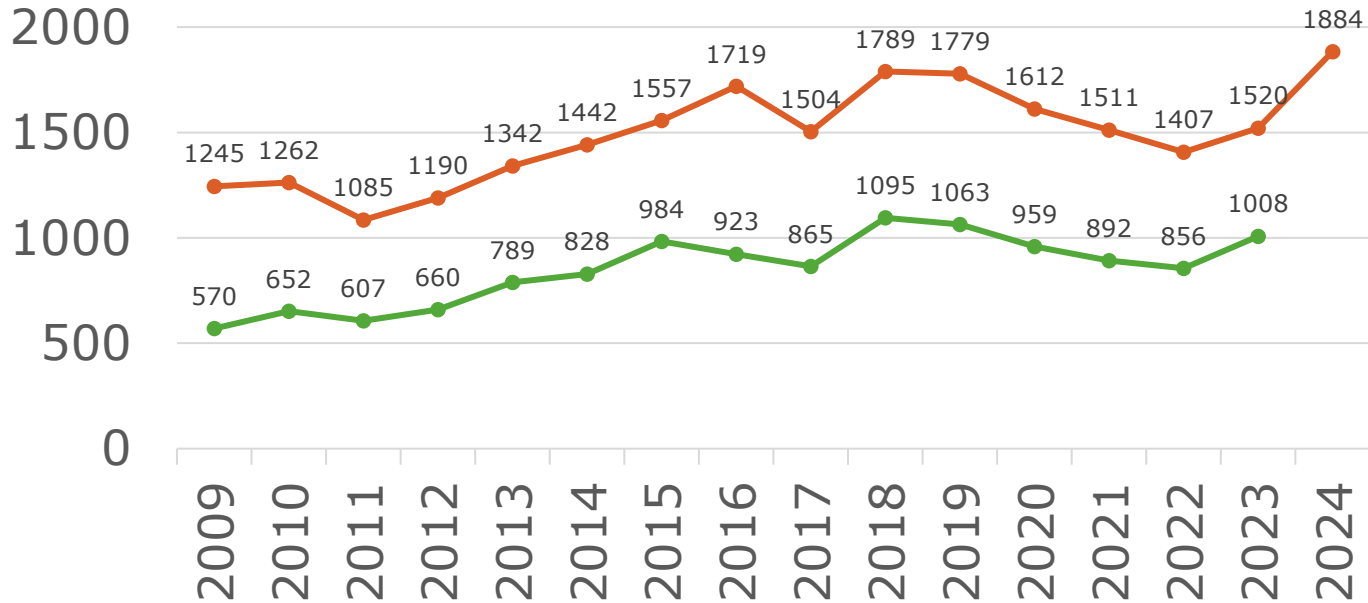
Technical Program Committee (TPC)

Regular Sessions

- 103 Oral Sessions
 - 515 paper presentations
- 6 Post Journal Article Sessions
 - 26 presentations
- 41 Poster Sessions
 - 4 different time slots
 - 599 regular paper posters
 - 31 2-page paper briefs posters



ECCE Historic Paper Submissions



- Total number of submitted digests from the SciReview system
- Total number of papers exported to IEEE Xplore



Luminary Sessions Committee

ECCE 2024
IEEE ENERGY CONVERSION CONGRESS & EXPO PHOENIX, ARIZONA, USA • OCT. 20-24

INTRODUCING OUR LUMINARIES

PROF. HIROFUMI (HIRO) AKAGI
TOKYO INSTITUTE OF TECHNOLOGY, TOKYO JAPAN

LUMINARIES SPECIAL SESSION

22 OCTOBER 2024

DR. JOHN KASSAKIAN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, USA



Tutorials Committee

■ Tutorial Submissions

- Proposals = 54
- Accepted
 - 25 3-hour tutorials on Sunday 10/20
 - 2 1.5-hour free-access tutorials on Thursday 10/24



Exhibits & Sponsorship Committee

Exhibition

- 64 exhibitors
 - 56 booths (55 industry, 1 university)
 - 8 university tables

Sponsors

- 13 sponsors
 - 10 silver
 - 3 gold



Women in Engineering (WIE) Committee

- WIE Luncheon
 - Invited keynote speakers
 - Ms. Bezos-O'Connor, NASA
 - Dr. Olga Spahn, ARPA-E
 - And Keyue Ma Smedley (University of California Irvine)
- WIE travel grants
- WIE Presentation Award



Student Activities Committee

- **Travel Grant**

- 30 Awards at \$750 each

- **Student Volunteers**

- 30 travel grant awardees are required to volunteer
- 40 additional volunteers, primarily from ASU

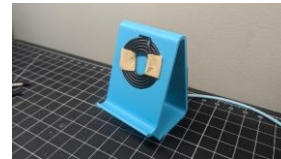
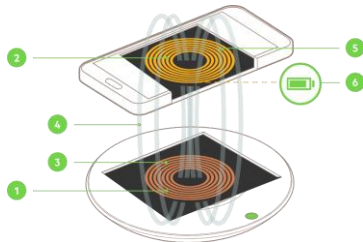
- **Career Fair**

- 22 companies registered so far



Outreach Committee

- **High School & Community College Engagement**
 - Training program to introduce curriculum in power electronics and renewable energy
 - 22 teachers attending, Tuesday (10/22/24) all day
 - Lesson plans on **solar energy** and **power electronics** intro
 - Lab kits for students with experiments in solar energy and wireless power charging
 - Partnership with E4USA + XRP/FIRST Robotics (already PELS outreach partners)



Lab Kits for Teachers

Local Committee

■ **Activities**

- Recruited local volunteers
- Promoted ECCE exhibition information to local industry
- Promoted ECCE plenary and tutorial speakers on to local industry and academia
- Supported ECCE “visitor tours” planning (Canyon Lake)

■ **Results**

- Recruited 20 local volunteers from ASU and local industry
- Recruited several local companies for the ECCE Exhibition



ECCE Activities

- Student Demos
 - 40 confirmed (54 accepted)
 - 15 grants awarded
- PELS-IAS Young Professionals Reception
 - Tuesday, October 22 | 7:30PM–9:30PM
- PELS Mentorship Roundtable
 - Monday, October 21 | 7:00PM–9:00PM





Rebecca
Krishnamurthy



Laura
Boggie



Tiffany
Viveros



Carlie
Shaw

- All around management and execution support of ECCE 2024
– ***Excellent!***

IEEE ECCE 2024

Phoenix Convention Center

Phoenix, AZ, Oct. 20-24

ECCE Organizing Committee

General Chair, Rolando Burgos (rburgos@ieee.org)
General Co-Chairs, Sudip Mazumder & Pedro Rodriguez



Oct. 22, 2024



Organizing Committee Members

- **General Chair**
 - Rolando Burgos, Virginia Tech
- **General Co-Chairs**
 - Sudip Mazumder, University of Illinois Chicago
 - Pedro Rodriguez, Luxembourg Institute of Science and Technology
- **General Treasurer and Finance Chair**
 - Xiu Yao, University at Buffalo, NY, Chair
 - Mark Scott, Miami University, Ohio, Co-Chair
- **Technical Program Chair (TPC)**
 - Pericle Zanchetta, University of Nottingham, UK (TPC Head)
 - Luca Solero, University Roma Tre, Italy
 - Helen Li, Florida State University, FL
 - Maryam Saeedifard, Georgia Tech, GA
 - Kevin Bai, University of Tennessee, Knoxville, TN
 - Fernando Briz, University of Oviedo, Spain
- **Publications**
 - Carl Ho, Manitoba University, Canada, Chair



Organizing Committee Members

- **Local Committee**
 - Zhicheng Guo, Arizona State University, Chair
 - Ayan Malik, Arizona State University
- **Exhibition**
 - David Morrison, How2Power, USA, Chair
 - Kristofer Eberle, Plexim, USA
- **Industry Partnerships**
 - Avoki Omekanda, GM, Chair
 - Xu She, Lunar Energy
 - Zhi (George) Gao, Danfoss Drives, USA
 - Wenkag Hang, Infineon
 - Mazharul (Maz) Chowdhury, GM
- **Tutorials**
 - Dorin Neacsu, Technical University of Iasi, Romania, Chair
 - Ozge Taskin, SAFRAN, UK
 - Chiara Boccaletti, Sapienza University of Rome, Italy



Organizing Committee Members

- **Publicity and Electronic Media**
 - Helen Cui, Tianjin University, China, Chair
 - Gen Li, Technical University of Denmark (DTU), Denmark
- **Plenary Sessions**
 - Sara Roggia, Magnix, USA, Chair
 - Shanelle Foster, Michigan State University, MI
- **Special Sessions**
 - Ryan Li, University of Alberta, Canada
 - Xiongfei Wang, KTH, Sweden
 - Sonny Xue, Oak Ridge National Laboratory, TN
 - Zheyu Zhang, Rensselaer Polytechnic Institute, NY
 - Jin Ye, University of Georgia, GA
- **Luminary Sessions**
 - Brad Lehman, Northeastern University, MA
- **Women in Engineering**
 - Shanelle Foster, Michigan State University, MI
 - Qianwen Xu, KTH, Sweden



Organizing Committee Members

- **Outreach**
 - Brad Lehman, Northeastern University, MA
- **Research and National Lab Partnership**
 - Burak Ozpineci, Oak Ridge National Laboratory, TN
- **Student Activities**
 - Sandun Kuruppu, Western Michigan University, MI, Chair
 - Jungwon Choi, University of Washington, WA
 - Harish Krishnamoorthy, University of Houston, TX
- **Young Professionals Activities**
 - Joseph Kozak, Johns Hopkins University, MD, Chair
- **Awards**
 - Fang Luo, Stony Brook University, NY, Chair
 - Mahima Gupta, Portland State University, OR
- **Webmasters**
 - Yuan Li, Florida State University, FL, Chair
 - Rakesh Kumar, National Institute of Technology Tiruchirappalli, India





IEEE ENERGY CONVERSION CONGRESS & EXPO PHILADELPHIA, PA, USA  OCT. 19-23

General Chair

Iqbal Husain

iqbal_husain@ncsu.edu

General Co-chair

Giovanna Oriti

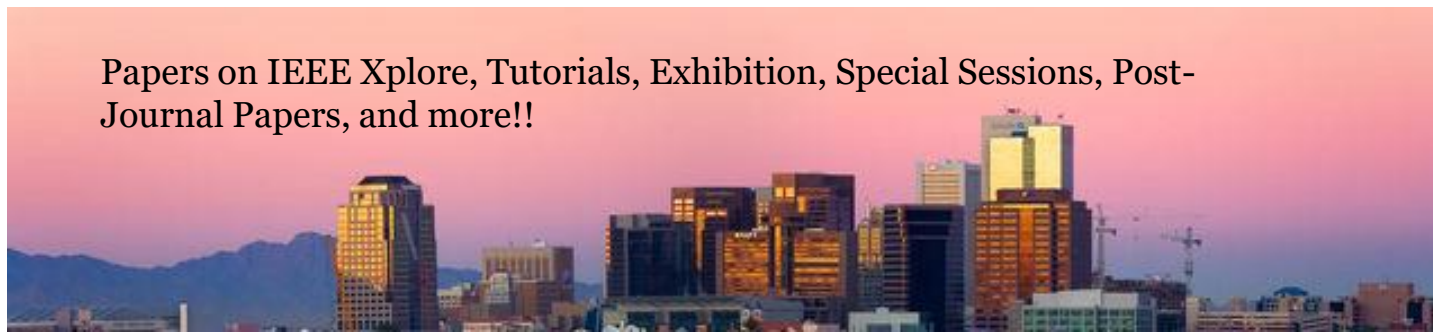
giovanna.oriti@ieee.org

Live Philadelphia!

Join ~2000 of your closest friends

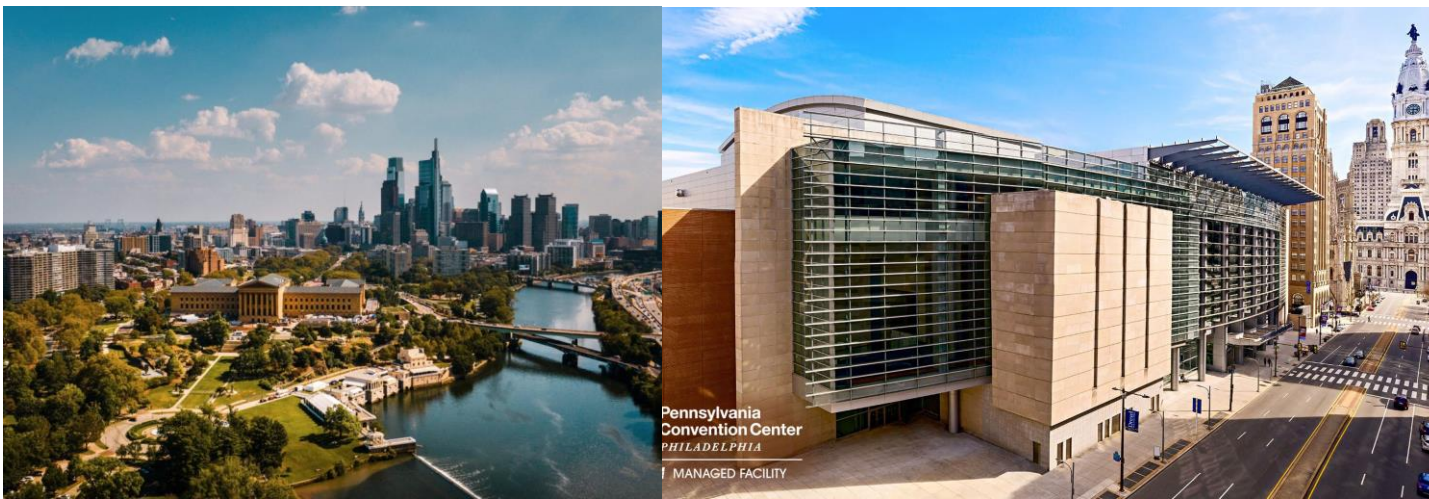
- Power Electronics, Semiconductor Devices, and Electric Drives
- Electric machines, Electric Vehicles, Electric Transportation
- Renewable Energy, Sustainable Energy
- Big Data, Machine Learning, Cybersecurity, Design Automation
- Smart Grid, Grid Modernization,
- Controls Modeling, and Optimization
- Passive Components, Materials, Energy Storage
- Many, many more topics

Papers on IEEE Xplore, Tutorials, Exhibition, Special Sessions, Post-Journal Papers, and more!!



Philadelphia Convention Center

- An elegant conference space that is marvelously adorned with works by 52 artists including a flying design of steel and aluminum tubes
- Only 15 minutes from Philadelphia International Airport



Hotels

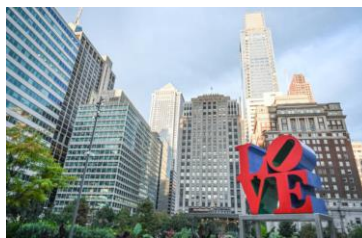
Four hotels contracted, all within less than a mile from the convention center:

- Canopy Hilton
- Hilton Garden Inn
- Le Meridian
- Wyndham Historic District



Many Attractions in Philadelphia

- Independence Hall: Birthplace of the United States
- Famous Love Sculpture
- Benjamin Franklin Parkway: Philadelphia most artistic mile
- Reading Terminal Market: One of America's oldest farmers market and food paradise
- Authentic Philly Cheesesteak
- Longwood Gardens
- Delaware River Waterfront
- Rocky Steps and Rocky Statue
- and many others...



Important Dates

- Mar. 2nd, 2025 - Deadline for Digest, Tutorial and Special Sessions
- May 25th, 2025 – Digest, Tutorial and Special Sessions decision
- Jun. 15th, 2025 – Post-Journal Online Form Submission Due
- Jun. 20th, 2025 - Final papers and Tutorial Materials due
- Jul. 6th, 2025 – Post-Journal Author Notification

IAS/PELS technical committees to nominate Vice-Chairs

For details visit our website:

<https://www.ieee-ecce.org/2025/>

Organizing Committee

- General Chair: Iqbal Husain
- Co-General Chair: Giovanna Oriti
- Finance Chairs: Dong Cao, Sanjida Moury
- TPCs: Xiaonan Liu, Andrea Cavagnno, Shanelle Foster, Jiangbiao He, Giacomo Scelba
- Tutorial Chairs: Luca Zarri, M A Awal
- Special Session Chairs: Grant Pitel, Anant Singh, Sarif Islam
- Publicity Chairs: Mhret Gebremariam, Helen Cui
- Publication Chairs: Brian Welchko, Silvio Vaschetto
- Local Chair: Liang Du
- Exhibit Chairs: David Morrison, Kris Eberle
- Industry Partnership Chairs: Avoki Omekanda, Mazharul Islam, Xu She
- Plenary Session Chair: Tomy Sebastian, Brad Lehman
- Student Activities Chair: Sandun Kuruppu
- Women in Engineering Chair: Vandana Rallabandi, Sneha Narasimhan
- Webmaster: Anant Singh, Chaitanya Jaolekar, Akshat Nigam
- Awards Chair: Mohammad Islam, Uday Deshpande

*Representatives from
Academia, Industry
and US National Lab*



IEEE ENERGY CONVERSION CONGRESS & EXPO



PHILADELPHIA, PA, USA OCT. 19-23



See you in October 2025 - in Philly!!

[Click for 30 s Video](#)



2025 IAS Annual Meeting Update

Luca Solero on behalf of **Avoki Omekanda**

2025 IAS Annual Meeting General Chair



2025 IEEE Industry Applications Society (IAS) Annual Meeting

Incorporating The
**Industrial & Commercial Power Systems (I&CPS)-Asia
Conference**

Hilton Taipei Sinban, in New Taipei, Taiwan, June 15-20, 2025

General Chair

Dr. Avoki Omekanda

avoki.omekanda@ieee.org





Conference Topics

- Industrial Power and Energy Systems, Smart Grids, Energy Storage Systems, Carbon-neutral Power and Energy Systems.
- Best practice for Data Centers, including their design, analysis, monitoring, maintenance, safety, and operation.
- Industrial Power Conversion, including Electric machines, Industrial drives, Electrified Transportation Systems and Renewable and Sustainable Energy Conversion Systems.
- Topologies, Modeling, and control of Power Electronic converters, devices and components.
- Industrial Lighting Systems, including Sources, Display Technologies, and Drivers.
- Fundamentals and Industrial Applications of Electrostatics, including Electro-hydrodynamics, Electrostatic Measurements, Computation Electrostatics, Electrostatic Precipitation and Separation, Coronas and Gas Discharges.
- Smart Manufacturing, Intelligent Process Control, and Factory Automation.
- Industry 4.0 and Best Practices in Industrial Automation and Control.
- Regulation and Utilization of Electricity for the Control of Industrial Process including machinery, heating and electrical safety. Industrial applications in continuous process
- industries, including metal production, mining, petrochemical, and others.

<https://ias-am.ieee.org/2025/author-information/>



Important Dates & Papers Submission

IMPORTANT DATES

Deadline of Digests Submission
Feb. 28, 2025

Notification of Paper Acceptance
April 15, 2025

**Deadline for submitting a
camera-ready PDF of the Full Paper**
May 15, 2025

Author Registration Due
May 15, 2025

Conference Dates
June 15-20, 2025

- All paper submissions must be made in English. One author must be selected as the corresponding author, and an email address must be provided for that individual.
- Accepted papers from the main technical program will be published in [IEEE Xplore](#). Papers that are scheduled for presentation but are not delivered will not be included in IEEE Xplore.
- The final manuscripts for the Conference Record will be submitted electronically via the [Scholar One Manuscripts](#) website.

For details visit our website:

<https://ias-am.ieee.org/2025/>



Organizing Committee

- General Chair: [Avoki Omekanda](#), USA
- Industry Chair: [Min-Fu Hsieh](#), Taiwan
- Treasurer: [Tamas Ruzsanyi](#), Hungary
- Event Manager: [Michelle Measel](#), USA
- International Advisor: [Andy Knight](#), Canada
- TPCs: [Luca Solero](#) (Italy), [Xiaodong Liang](#) (Canada), [Saleh Saleh](#) (Canada)
- IEEE IAS Annual Meeting Local Chair: [Min-Fu Hsieh](#), Taiwan
- I&CPS Asia Local Chair: [Allen Wu Yuan-Kang](#), Taiwan
- Local Committee International Advisor: [Wei-Jen Lee](#), USA
- Local Organizing Committee (LOC) Team: [22 Members](#) (see next slide)
- Society Organizing Team: [Patrick McCarren](#), [Kimberly Borini](#), [Andrea M. Sadlowski](#)

Local Organizing Committee (LOC)



Name	Affiliation	Email
Hsueh-Hsien Chang	Minghsin University of Science and Technology	sschang@must.edu.tw
Le-Ren Chang-Chien	National Cheng Kung University	leren@ee.ncku.edu.tw
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Tsong-Juu Liang	National Cheng Kung University	tjliang@mail.ncku.edu.tw
Jian-Hong Liu	National Taiwan University of Science and Technology	jhliu727@mail.ntust.edu.tw
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Heng-Yi Su	National Taipei University of Technology	hysu@ntut.edu.tw
Yu-Chen Su	National Tsing Hua University	ycsu@ee.nthu.edu.tw
Chin-Chung Wu	Taiwan Power Company	u850899@taipower.com.tw
Tung-Sheng Zhan	National Kaohsiung University of Science and	tszhan1109@nkust.edu.tw



See You in June 2025 in Taipei, Taiwan



Motion to Adjourn

Luca Solero

IPCSD Chair