

# Industrial Power Converters Committee Meeting

Virtual Meeting  
October 30<sup>th</sup>, 2021

- **Approval of the Agenda and Approval of 2020 Meeting Minutes**  
(<http://sites.ieee.org/ipcc/minutes>)
- **Officers Report**
  - ECCE 2021
- **Reports from Subcommittees**
  - Fellow and awards nomination
  - Standards
  - Special activities
  - Promotion for IAS sponsored 2022 conferences
- **IAS Transactions**
  - Associate Editors acknowledgment
  - IAS Transactions review statistics
  - IEEE Open Journal of Industry Applications
  - IPCC prize paper awards and New IPCC TIA prize paper awards

- **New Appointments**
  - Appointment of the new Secretary
  - Appointment of the new Standards Chair
  - Appointment of the new Fellow and Award Nominating Chair
  - Appointment of the new Transactions Review Chair and Co-Chair
  - Appointment of the new Special Activity Chair and Co-Chair
  - Appointment of the new European Liaison Officer
- **Planning of ECCE 2022**
  - Call for Tutorials
  - Volunteers as Topic Chairs and Session Chairs
- **Closing remarks & Motion to adjourn**

## *Virtual Meeting Basic Rules*

- keep microphones off, write in chat if you would like to talk, **show your full names on the participation labels;**
- during the approval process of the different points the Committee Chair will ask for first and second moves, eventual objections and abstentions;
- attendees are asked to write in chat if they either object or abstain.

- Agenda approval
- Approval of 2020 Minutes  
(<http://sites.ieee.org/ipcc/minutes>)

- Membership roster is at 432 (+6 people since last meeting)
  - Online registration at <http://sites.ieee.org/ipcc/>
  - Attending the IPCC meeting held every year at ECCE (usually)
- Spread the word to friends, colleagues, and students.

## Becoming an Active Member

- **Reviewer, track chair at Conferences, technical webinar presenter, special issue proposals for IAS Journals** (IEEE Transactions on Industry Applications, IEEE Industry Applications Magazine, Open Journal of Industry Applications) **and IAS Joint Publications** (JESTPE, JESTIE, Transactions on Transportation Electrification, Transactions on Sustainable Energy, IEEE Electrification Magazine, Transactions on Smart Grid)
- Publishing at IAS sponsored conferences

## Committee Officers

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

## Industrial Power Converter Subcommittees

Transactions Review Chair	Pericle Zanchetta	pericle.zanchetta@nottingham.ac.uk
Transactions Review Co-Chair	Stefano Bifaretti	stefano.bifaretti@uniroma2.it
Fellow and Award Nominating Chair	Po-tai Cheng	ptcheng@ieee.org
Standards Chair	Lixiang Wei	lixiangw@ieee.org
Special Activity Chair	Wenkang Huang	wkhuang@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	Shafiq Odhano	shafiq.odhano@newcastle.ac.uk

# ECCE 2021

**36 members**

- General Chair: Giovanna Oriti
- Finance Chair: Shanelle Foster
- TPCs: Jean-Luc Schanen, Luca Zarri, Mark Scott, Gianmario Pellegrino, Michael Harke, Elisabetta Tedeschi
- Publication Chairs: Brian Welchko, Norma Anglani
- Virtual Platform Chair: Anant Singh
- Exhibit Chairs: David Morrison, Grant Pitel
- Tutorial Chairs: Yue Cao, Katherine Kim
- Special Session Chairs: Xiaonan Lu , Fei Ding
- Publicity Chairs: Jiangbiao He, Zheyu Zhang
- Plenary Session Chair: Sara Roggia, Tom Kirk
- Student Activities Chair: Xiu Yao
- Electronic Media Chairs: Sumit Chhabria, Jyothis Joseph
- Webmaster: Dong Cao, Yuan Li
- Awards Chair: Christina DiMarino
- Women in Engineering Chair: Lijun He, Mengqi Wang
- Industry Liaison: Brian Zahnstecher
- Local Chairs: Jennifer Vining, Jonathan Bird
  - Vancouver IEEE Chapter: Francisco Paz, Hamed Valipour, Franco Degioanni
  - Vancouver IEEE IAS/IES Chapter: Subhadeep Bhattacharya

**13 from industry**  
**1 US gov. lab**  
**13 women**

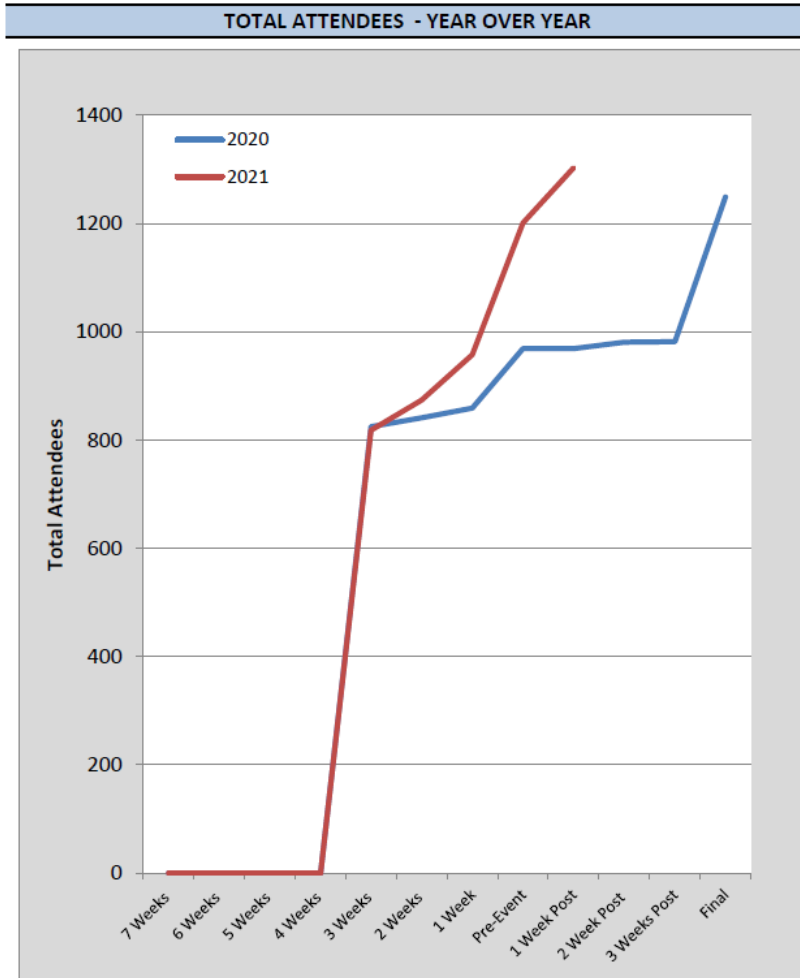


- 1511 Digest Received – more than 4 reviews per digest
- 893 Technical Papers – on demand + chat to ask questions
  - All oral presentations, organized by technical tracks
  - Session chairs assigned to ensure all papers have questions
- 4 Industry Plenary Speakers – 2 women, 2 men
  - Tesla, MagniX, GE Aviation, Intel
- 17 Tutorials - peer reviewed
  - Live Zoom “meet the instructor” events on Sunday, Oct 10<sup>th</sup>
  - pre-recorded videos available a day before live event
- 25 Special sessions – peer reviewed
  - Significant industry participation
  - Live on Zoom

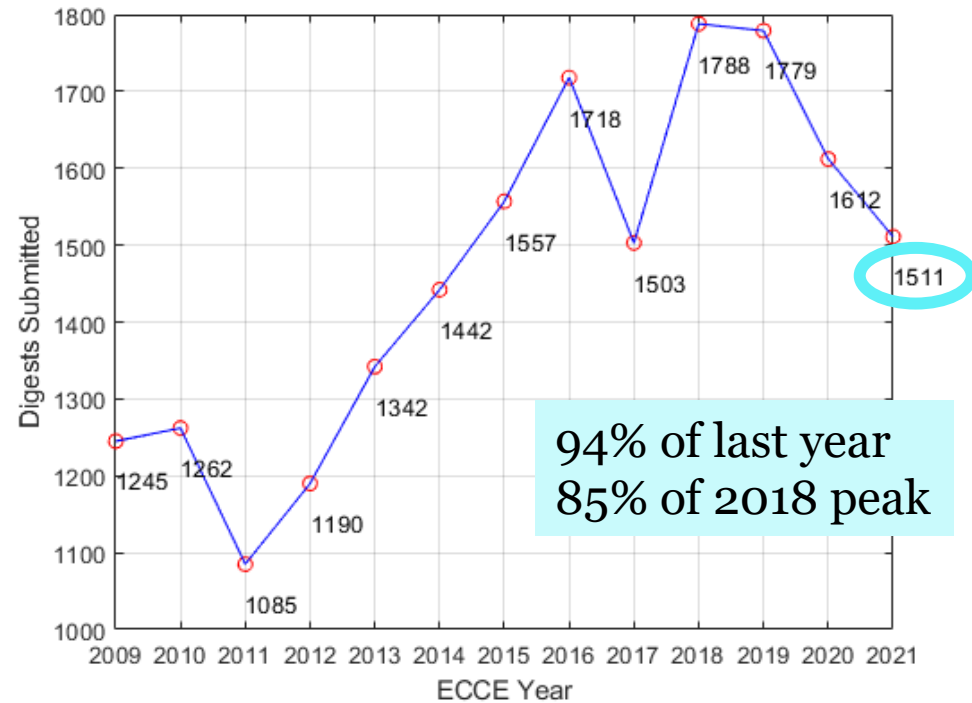
- Virtual platform at [ecce2021.vfairs.com](http://ecce2021.vfairs.com)
  - 5 live day Oct. 10<sup>th</sup> -14<sup>th</sup> + 25 days on-demand until Nov 14<sup>th</sup>
- Free Events: Plenary Session, Exhibit, Awards, Students Demos, Product Sessions and Special Sessions
- Industry: 1 Gold Sponsor, 1 Silver Sponsor, 30+ Exhibitors



- Registration data plot as of Oct 14<sup>th</sup>
  - 1384 registrations – Oct 28<sup>th</sup>



- 28 VCs, 155 TCs
- 5-15 papers per TC
- Average review per digest 4.63
- Decisions emailed on May 1<sup>st</sup> as scheduled
- Overall acceptance 64% - 971 papers (68% ECCE2018, 64%, ECCE 2019)
- Final papers in proceedings 893



Revenue	Type	Current Financials 10/5/21
	ECCE Registration	\$ 226,650
	ECCE / IAS Registration	\$ 93,015
	Paper Fees	\$ 248,310
	Tutorials	\$ 33,925
	Exhibits	\$ 4,600
	Sponsorships	\$ 8,150
	IAS Reimbursements	\$ 0
	<b>Total Revenue</b>	<b>\$ 614,650</b>
<b>Expenses</b>		
	Event Management	\$ 127,737
	Registration and paper portal	\$ 0
	Proceedings/Program	\$ 0
	Tutorial Honorarium	\$ 0
	Virtual platform	\$ 43,085
	Local Arrangements	\$ 50,086
	Committee	\$ 0
	Promotions and website	\$ 8948
	Audit Fees	\$ 0
	IAS Reimbursements	\$ 0
	Other (future site selection)	\$ 0
	<b>Total Expense</b>	<b>\$ 229,856.35</b>
	<b>Surplus</b>	<b>\$ 384,794</b>
	<b>Surplus in %</b>	<b>167 %</b>

- Local convention center costs to be refunded due to force majeure
- Fees transfer between ECCE and IAS annual meeting joint registration to be finalized

## Power Converter Topologies

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

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

**Vice Chair:** Luca Solero, *University Roma Tre, Italy*

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

**Vice Chair:** Olivier Trescases, *University of Toronto, Canada*

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

Diego G. Lamar, *Universidad de Oviedo, Spain*

Fang Luo, *Stony Brook University, USA*

Gab-Su Seo, *National Renewable Energy Laboratory (NREL), USA*

Dong Cao, *University of Dayton, USA*

Hengzhao Yang, *ShanghaiTech University, China*

Hidemine Obara, *Yokohama National University, Japan*

Damian Oslebo, *Naval Sea Systems Command (NAVSEA), USA*

Samantha Gunter, *General Motors, USA*

Mark Dehong Xu, *Zhejiang University, China*

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

David Perreault, *Massachusetts Institute of Technology, USA*

Ali Khajehoddin, *University of Alberta, Canada*

- **Submitted** **234**
- **Accepted (final)** **145**
- **Percentage** **62.0%**

Ashish Kumar, *Texas Instruments, USA*

Saad Pervaiz, *Texas Instruments, USA*

Jeehoon Jung, *Ulsan National Institute of Science and Technology, South Korea*

Manuel Arias, *University of Oviedo, Spain*

Xibo Yuan, *University of Bristol, England*

Mahshid Amirabadi, *Northeastern University, USA*

Jongwon Shin, *Chung-Ang University, South Korea*

Shafiq Odhano, *University of Newcastle, UK*

Gui-Jia Su, *Oak Ridge National Laboratory, USA*

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

Marco di Benedetto, *University Roma Tre, Italy*

Mahima Gupta, *Portland State University, USA*

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

Gabriele Rizzoli, *University of Bologna, Italy*

Mattia Rossi, *Politecnico di Milano, Italy*



## Control, Modelling, and Optimization of Power Converters

Vice Chair: Xiaonan Lu, *Temple University, USA*

Vice Chair: Petros Karamanakos, *Tampere University,  
Finland*

Vice Chair: Cong Li, *GE Research, USA*

Vice Chair: Daniel Costinett, *University of Tennessee,  
Knoxville, USA*

Ludovico Ortonbina, *University of Padova, Italy*

Ralph Kennel, *Technical University of Munich, Germany*

Dongbo Zhao, *Argonne National Laboratory, USA*

Ghanshyamsinh Gohil, *Hitachi ABB Power Grids, USA*

Alessandro Lidozzi, *ROMA TRE University, Italy*

Vito Giuseppe Monopoli, *Politecnico di Bari, Italy*

Carl Ho, *University of Manitoba, Canada*

Fengxiang Wang, *Haixi Institutes, Chinese Academy  
of Sciences, China*

Marcello Pucci, *INM-CNR, Italy*

Helen Cui, *University of Tennessee Knoxville, USA*

Fei Lu, *Drexel University, USA*

Jun Wang, *University of Nebraska Lincoln, USA*

Arijit Banerjee, *University of Illinois Urbana-Champaign, USA*

Jungwon Choi, *University of Minnesota, USA*

Minjie Chen, *Princeton University, USA*

Alex Hanson, *University of Texas at Austin, USA*

Emre Gurpinar, *Oak Ridge National Laboratory, USA*

Abhilash Kamineni, *Utah State University, USA*

- **Submitted** **224**
- **Accepted (final)** **139**
- **Percentage** **62.1%**

Shuo Wang, *University of Florida, USA*

Hang Dai, *GE Research, USA*

Hao Tu, *North Carolina State University, USA*

Han Xiong, *GE Research, USA*

Omer Gundogmus, *GE Research, USA*

Meng Huang, *Wuhan University, China*

Ren Xie, *GE Research, USA*

Yi Liu, *Wuhan University, China*

Zhen Tian, *Wuhan University, China*

Yuhua Du, *Temple University, USA*

Wei Du, *Pacific Northwest National Laboratory, USA*

Tianqi Hong, *Argonne National Laboratory, USA*

Sheng Zheng, *Oak Ridge National Laboratory, USA*

Li Zhang, *Nanyang Technologies University, Singapore*

Wenkang Huang, *Infineon Technologies, USA*

Shuang Xu, *North China University of Technology, China*

Bo Zhang, *Idaho National Laboratory, USA*

Wencong Su, *The University of Michigan-Dearborn, USA*

IPCC Fellow and Award Nominating Chair

**Po-tai Cheng**

**Fellow Committee and Award Committee looking towards 2022: Robert Guenther on behalf of Po-tai Cheng**

- This Committee can support IPCC members seeking elevation to Fellow Grade by
  - Helping prospective nominees looking for a nominator
  - Providing basic guidance about the fellow process
  - At the request of the nominee, can provide one of the endorsement letters supporting the nomination.
  - Contact [RNguenther@gmail.com](mailto:RNguenther@gmail.com)



## Reports from subcommittees Fellow and awards nomination



**IAS Awards and Deadlines for  
Nomination Submission for 2022:**

**- Self-nomination is not permitted.**

**<https://ias.ieee.org/awards.html>**

**Andrew W. Smith Outstanding Young  
Member Achievement Award (Submission  
Deadline is 1 April)**

• [On-line submission form](#)

**Distinguished Service Award (Submission  
Deadline is 1 April)**

• [On-line submission form](#)

**Outstanding Achievement  
Award (Submission Deadline is 1 April)**

• [On-line submission form](#)

**Outstanding Young Member Service Award  
(Submission Deadline is 1 April)**

• [On-line submission form](#)

**IAS Outstanding Educator/Mentor Award  
(Submission Deadline is 1 April)**

• [On-line submission form](#)

**Kliman Award (Submission Deadline is  
June 1)**



### Online Nomination Process for IEEE Fellow Grade

Related information

IEEE Fellow Menu

IEEE Fellow Program

IEEE Fellows Directory

Frequently Asked Questions

Judges Scoring Program

Online Nomination Form

Society/Technical Council  
Scoring Program

Steps to Become an IEEE  
Fellow

IEEE Fellow Grade  
Nomination Categories

IEEE Fellow Program

Welcome! We are pleased that you have chosen to nominate a colleague for IEEE Fellow grade.

We only accept nominations through the Fellow online system. The nominator must submit a nomination before a reference or endorser can complete the support form.

It is essential that a nominator reads the [How to Write an Effective Nomination document](#) (PDF, 228 KB) carefully so that the nomination is not put at risk.

**Please note: The nomination cycle for the 2023 Fellow Class will open 15 October 2021.**

### The 2023 Fellow Process schedule:

**Confirm the dates once you setup the nomination on IEEE website.**

- **Nominations for the 2023 Fellow class open 15 October 2021**
- **Nominations must be completed and submitted (online) by 1 March 2022 by 11:59 pm EST**
- **Nominations go to IEEE where they are then forwarded to the appropriate evaluating committee (for IAS, all nominations that fall under the IAS umbrella go to the IAS Fellow evaluating committee. **No other committees within IAS perform any evaluation or rating of nominees**)**
- **The IAS fellow evaluation committee must submit their results to IEEE by 1 June 2022 (this date can vary but is a very firm date set by IEEE)**
- **The decision on the 2023 IEEE Fellow Class is released by the IEEE Fellows Committee sometime in December 2022**

### Tips on Preparing an Effective Nomination:

- **Select the appropriate category:**
  - Application Engineer/Practitioner.
  - Educator.
  - Research Engineer/Scientist.
  - Technical Leader.
- **Zero-in in the nominee's 1 or 2 major areas of work that have made the biggest impact in her/his field**
- **Make sure that the supporting evidence consisting of major publications, patents, references and endorsements all align in clear support of the major 1 or 2 areas of the nominee's work.**
- **The online nomination form has defined "word count" values for each section so be concise so that the evaluating committee is left with no doubt as to the significance of the 1 or 2 major contributions of the nominee.**
- **For considerably more detail, refer to the IEEE document on "How to Write an Effective Nomination":**  
[https://www.ieee.org/content/dam/ieee-org/ieee/web/org/members/writing\\_effective\\_nominations.pdf](https://www.ieee.org/content/dam/ieee-org/ieee/web/org/members/writing_effective_nominations.pdf)

- Congratulations to **Robert N. Guenther**, an IPCC Member, for being awarded the **2021 Gerald Kliman Award**
- Congratulations to **Adam Skorek**, an IPCC Member, for being awarded the **2021 Distinguished Service Award**
- Congratulations to **Prasad Enjeti**, an IPCC Member, for being awarded the **2021 Outstanding Achievement Award**
- Congratulations to **Zheyu Zhang**, an IPCC Member, for being awarded the **2021 Andrew W. Smith Outstanding Young Member Achievement Award**

- Congratulations to **Yaow-Ming Chen**, an IPCC Member, who was elevated to the **IEEE Fellow** grade, Class of 2021. Congratulations to his Nominator, too.
- Congratulations to **Sanjib Kumar Panda**, an IPCC Member, who was elevated to the **IEEE Fellow** grade, Class of 2021. Congratulations to his Nominator, too.
- Congratulations to **Leila Parsa**, an IPCC Member, who was elevated to the **IEEE Fellow** grade, Class of 2021. Congratulations to her Nominator, too.
- Congratulations to **Akshay Kumar Rathore**, an IPCC Member, who was elevated to the **IEEE Fellow** grade, Class of 2021. Congratulations to his Nominator, too.
- Congratulations to **Mahesh Swamy**, an IPCC Member, who was elevated to the **IEEE Fellow** grade, Class of 2021. Congratulations to his Nominator, too.
- Congratulations to **Jin Wang**, an IPCC Member, who was elevated to the **IEEE Fellow** grade, Class of 2021. Congratulations to his Nominator, too.

Standards Chair

Lixiang Wei

IAS asks for IPCC involvement in standards activity.

We are looking for potential standards project proposals from IPCC committee members from this IPCC committee meeting.

Please send any new proposal ([luca.solero@uniroma3.it](mailto:luca.solero@uniroma3.it) and [xiaonan.lu@ieee.org](mailto:xiaonan.lu@ieee.org)) and we will start to kick off this activity.

IPCSD Department Standards Committee Annual Meeting is scheduled for Saturday November 20, 2021.

### Special Activities Chair

# Wenkang Huang

- **Main purpose**
  - Organize special events aimed at promoting and disseminating knowledge in the field of interest of IPCC and favor Industry-Academia links (tutorials, panel groups, special sessions at IAS sponsored conferences and journals)
- **Strategies**
  - To continue initiating IAS-IPCC webinar series and increase its global participation
  - To boost participation of IPCC members in ECCE Asia and ECCE Europe conferences
  - To participate in proposals to special sessions of IEEE journals
- **Actions**
  - Organized Webinar presentation on April 14th, 2021
    - “Partial Power Processing Converters: A Way to go Beyond the Limits”, by Petar Grbovic



#### ▪ **Actions (continued)**

- Organized and scheduled a webinar to be presented on November 4th, 2021
  - “Unregulated Resonant Converter Families for 48-V Intermediate Bus”, by Roberto Rizzolatti and Christian Rainer, Infineon Technologies, Austria
- Organizing special session proposals to IEEE Journal of Emerging and Selected Topics in Power Electronics
  - “Emerging Power Electronics Technology for Carbon Neutral Applications”, Guest Editors: Jeehoon Jung and Petar Grbovic
- Continue promoting participations of IPCC members in ECCE Asia and ECCE Europe conferences

#### ▪ **Call for Proposals of Webinars**

- IPCC Call for Webinars published on <https://site.ieee.org/ipcc/news/>
- Proposals of Webinars from industry are especially welcome
- Please submit to [wkhuang@ieee.org](mailto:wkhuang@ieee.org) and cc [luca.solero@uniroma3.it](mailto:luca.solero@uniroma3.it)



# IAS Sponsored 2022 Conferences



# Sponsored Conferences 2022 (USA)



2022 IEEE Power and Energy  
Conference at Illinois (PECI)

Champaign, IL USA

Mar 10-11, 2021

Digest Submission Date: Nov 21, 2021



2022 IEEE Green Technologies  
Conference (GreenTech)

Houston, TX USA

Mar 30-Apr 1, 2022

Abstract Submission Date: Nov 1, 2021

## Flagship Conference



2022 IEEE Applied Power Electronics  
Conference and Exposition (APEC)

Houston, TX, USA

Mar 20-24, 2022

Digest Submission Date: Aug 21, 2021

<https://www.apec-conf.org/>

2022 IEEE International Future Energy  
Challenge (IFEC)

Knoxville, TN, USA

Apr 28-30, 2022

Proposal Due Date: Oct 31, 2021

## APEC 2022 Track Chairs from IPCC

AC-DC Converters: **Arijit Banerjee**, University of Illinois at Urbana-Champaign

**Mehdi Narimani**, McMaster University

Motor Drives and Inverters: **Dinesh Kumar**, Danfoss Drive A/S

Devices and Components: **Zheyu Zhang**, Clemson University

Power Electronics Integration and Manufacturing: **Liming Liu**, ABB Inc.

Control: **Grant Pitel**, Magna-Power Electronics

**Xiaonan Lu**, Temple University

Transportation Power Electronics: **Dong Cao**, University of Dayton

Power Electronics Applications: **Manuel Arias Perez de Azpeitia**, University of Oviedo

## APEC 2021 Session Chairs from IPCC

**Adam Skorek, Arijit Banerjee, Majid Pahlevani, Mehdi Narimani,**

**Fang Luo, Sudip Mazumder, Zheyu Zhang, Wenkang Huang,**

**Yunwei Li, Praveen Jain, Rashmi Prasad, Di Pan**



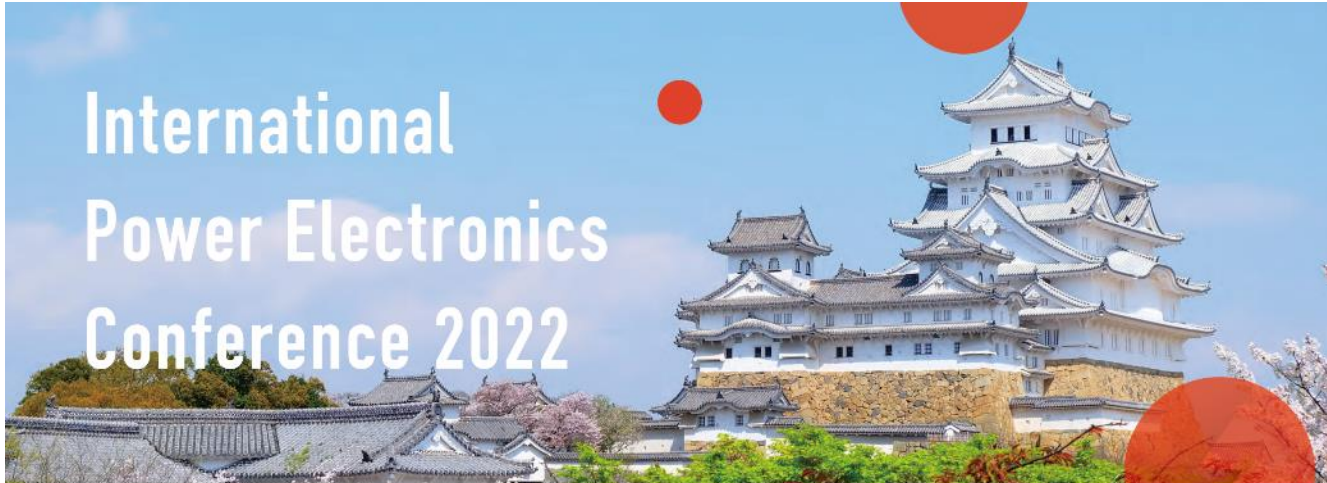
# Sponsored Conferences 2022 (Asia)



**IPEC2022 ECCE-ASIA**  
**(International Power Electronics Conference)**  
**May 15-19, 2022**

**Himeji, Japan**

Abstract Submission **Oct. 29, 2021**  
(If you submit the abstract, send it, **ASAP** )



## International Power Electronics Conference 2022

Integration of Power conversion, Electric machine, and Control

### IPEC 2022 ECCE ASIA HIMEJI

May 15-19, 2022  
Himeji City Culture and Convention Center







# Sponsored Conferences 2022 (Europe)



2022 4th International Youth Conference on Radio Electronics, Electrical and Power Engineering (REEPE)

Moscow, Russia, 17 – 19 March 2022

2022 11th IET International Conference on Power Electronics, Machines and Drives (PEMD)

Newcastle, United Kingdom, 11 – 14 April 2022

2022 23rd International Carpathian Control Conference (ICCC)  
Sinaia, Romania, 29 May – 1 June 2022

2021 Joint Conference - 11th International Conference on Energy Efficiency in Domestic Appliances and Lighting & 17th International Symposium on the Science and Technology of Lighting (EEDAL/LS:17)

Toulouse, France, 1 – 3 June 2022

2022 International Conference on Smart Energy Systems and Technologies (SEST)

Eindhoven, Netherlands, 5 – 7 September 2022

# IEEE Transactions on Industry Applications

## Industrial Power Converter Committee

**Pericle Zanchetta**  
**IEEE IAS IPCC Paper Review Chair**

**October 30<sup>th</sup>, 2021**



# IPCC Associate Editors

- Stefano Bifaretti, Italy
- Shafiq Odhano, UK
- Huang-Jen Chiu, Taiwan
- Dong Jiang, China
- Surin Khomfoi, Thailand
- Xiaonan Lu, USA
- Ke Ma, Denmark
- Santanu Mishra, India
- Marcello Pucci, Italy
- Luca Solero, Italy
- Xue She, USA
- Yongsug Suh, Korea
- Zhiqiang Wang, USA
- Junming Zhang, China
- Vivek Agarwal, India
- Andrea Formentini, Italy
- Vito Giuseppe Monopoli, Italy
- Petros Karamanakos, Finland
- Riccardo Leuzzi, Italy
- Jiangbiao He, USA
- Liang Du, USA
- Xibo Yuan, UK
- Dong Dong, USA
- Zheyu Zhang, USA
- Alessandro Lidozzi, Italy

# Submitting a manuscript to IPCC

- Paper first must be presented at an IAS-sponsored conference (within the last 12 months)
- Send an email to [pericle.zanchetta@nottingham.ac.uk](mailto:pericle.zanchetta@nottingham.ac.uk) or [Stefano.Bifaretti@uniroma2.it](mailto:Stefano.Bifaretti@uniroma2.it) with the request to submit a paper **ONLY if the paper is ready for submission**:
  - Paper title
  - List of authors and corresponding author's email & institution
  - Conference and date when paper presented
- An email will be sent to you from S1M with instructions on uploading your paper for review (usually within 1 - 2 weeks)

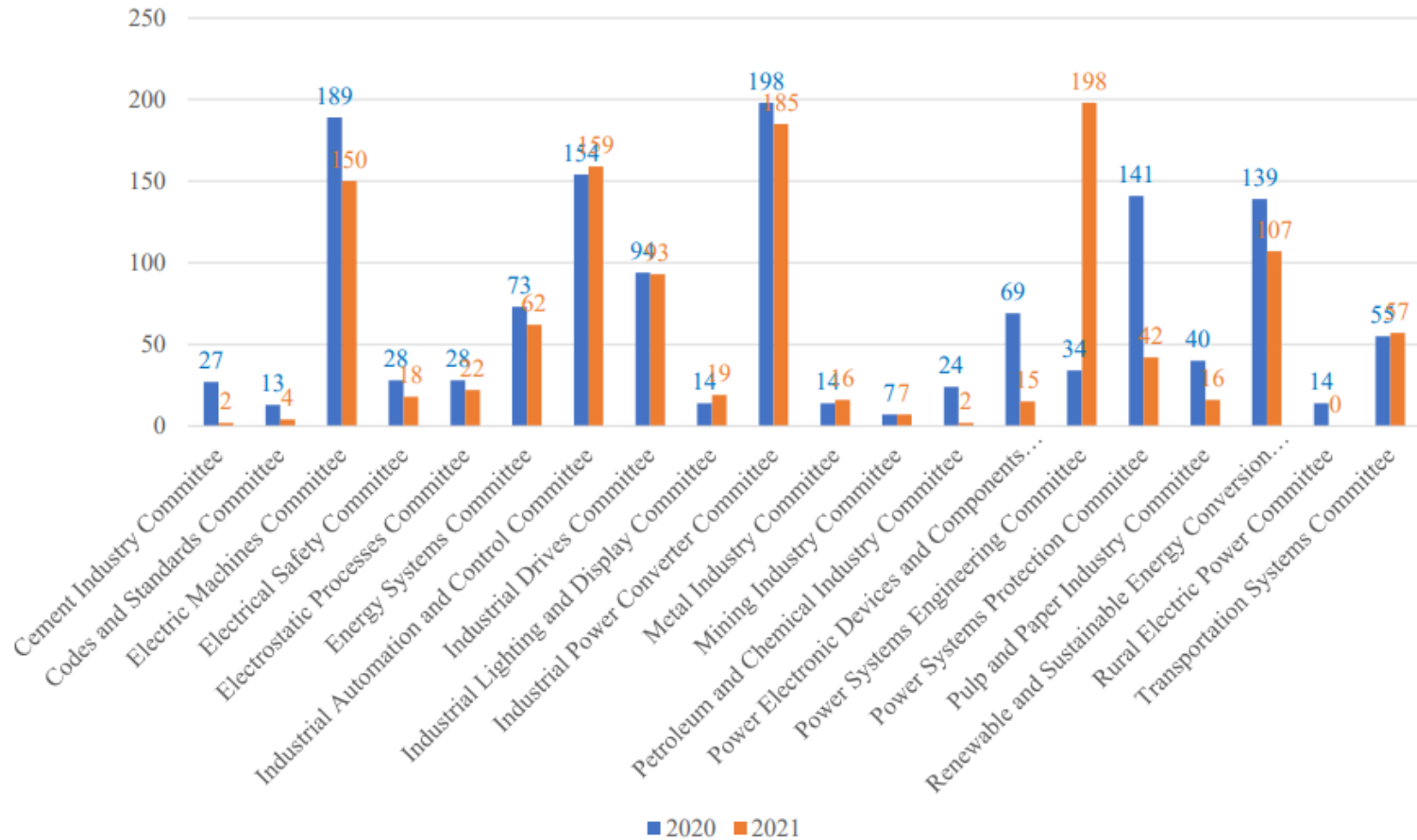


# Submitting a manuscript to IPCC

- ***You must reference (cite) the conference paper version in your Trans. submission reference list.***
- ***Change title and Update/add new material to conference version. Papers needs to be different from the conference ones. There is no fixed amount of difference, it is at the discretion of the transaction chair. Be reasonable.***

**Please cite TIA papers!**

# Comparison of total submissions for 2020-2021

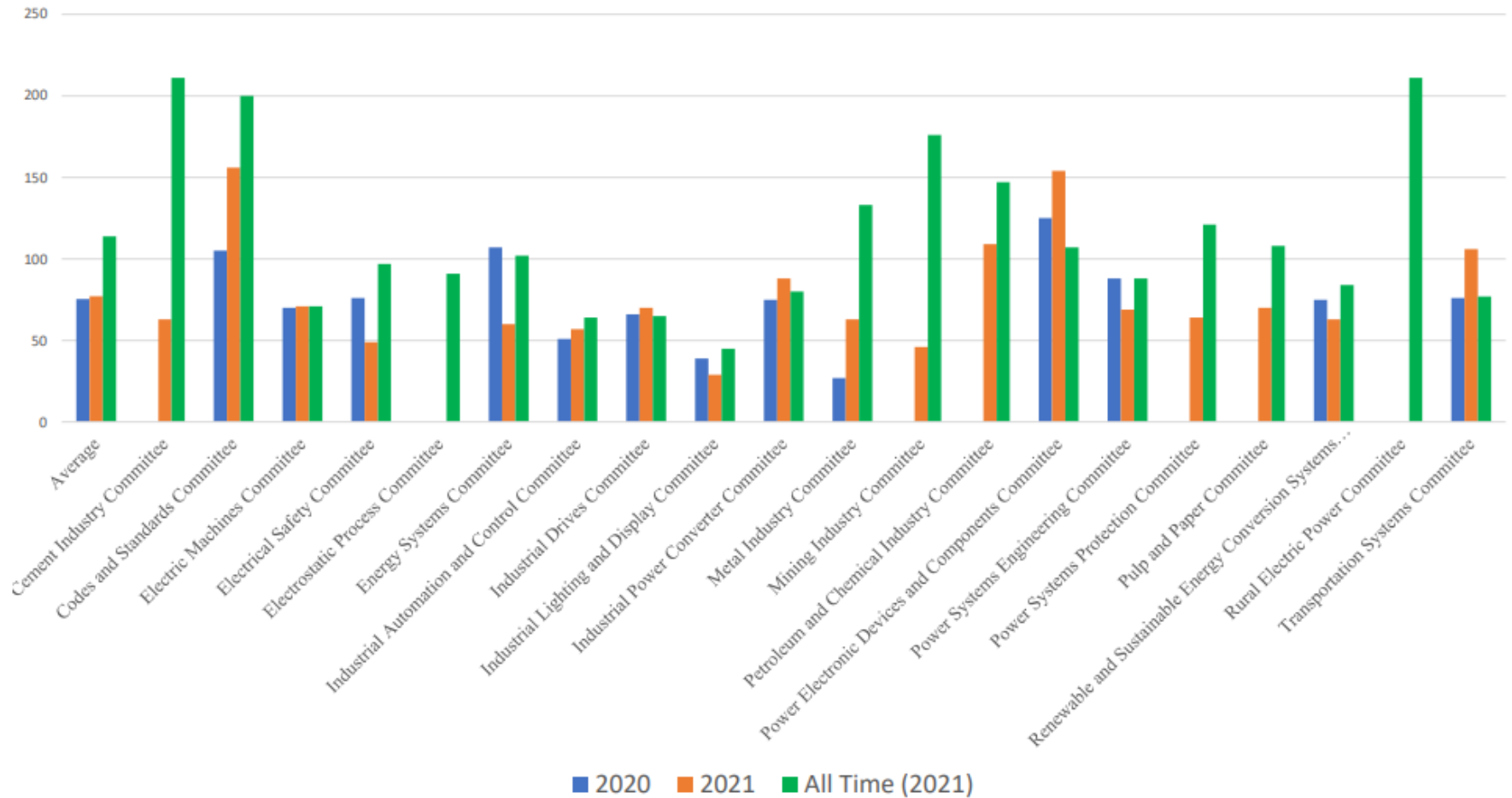


# Total submissions by committee

	2020	2021	All Time
Cement Industry Committee	27	2	243
Codes and Standards Committee	13	4	49
Electric Machines Committee	189	150	2,207
Electrical Safety Committee	28	18	265
Electrostatic Processes Committee	28	22	414
Energy Systems Committee	73	62	568
Industrial Automation and Control Committee	154	159	1,313
Industrial Drives Committee	94	93	1,097
Industrial Lighting and Display Committee	14	19	264
Industrial Power Converter Committee	198	185	1,983
Metal Industry Committee	14	16	184
Mining Industry Committee	7	7	166
Petroleum and Chemical Industry Committee	24	2	726
Power Electronic Devices and Components Committee	69	15	356
Power Systems Engineering Committee	34	198	1,229
Power Systems Protection Committee	141	42	311
Pulp and Paper Industry Committee	40	16	288
Renewable and Sustainable Energy Conversion Systems Committee	139	107	849
Rural Electric Power Committee	14	0	151
Transportation Systems Committee	55	57	331
Total	1,355	1,174	13,501

- **Red** numbers indicate increasing submissions from 2020 to 2021
- **Blue** numbers indicate decreasing submissions time from 2020 to 2021
- **Black** numbers indicate equal submissions time from 2020 to 2021

# Average 1<sup>st</sup> Decision time comparison



# Average 1<sup>st</sup> decision time

Average First Decision Time	2020	2021	All Time (2021)
<i>Average</i>	75	77	114
Cement Industry Committee		63	211
Codes and Standards Committee	105	156	200
Electric Machines Committee	70	71	71
Electrical Safety Committee	76	49	97
Electrostatic Process Committee			91
Energy Systems Committee	107	60	102
Industrial Automation and Control Committee	51	57	64
Industrial Drives Committee	66	70	65
Industrial Lighting and Display Committee	39	29	45
Industrial Power Converter Committee	75	88	80
Metal Industry Committee	27	63	133
Mining Industry Committee		46	176
Petroleum and Chemical Industry Committee		109	147
Power Electronic Devices and Components Committee	125	154	107
Power Systems Engineering Committee	88	69	88
Power Systems Protection Committee		64	121
Pulp and Paper Committee		70	108
Renewable and Sustainable Energy Conversion Systems Committee	75	63	84
Rural Electric Power Committee			211
Transportation Systems Committee	76	106	77

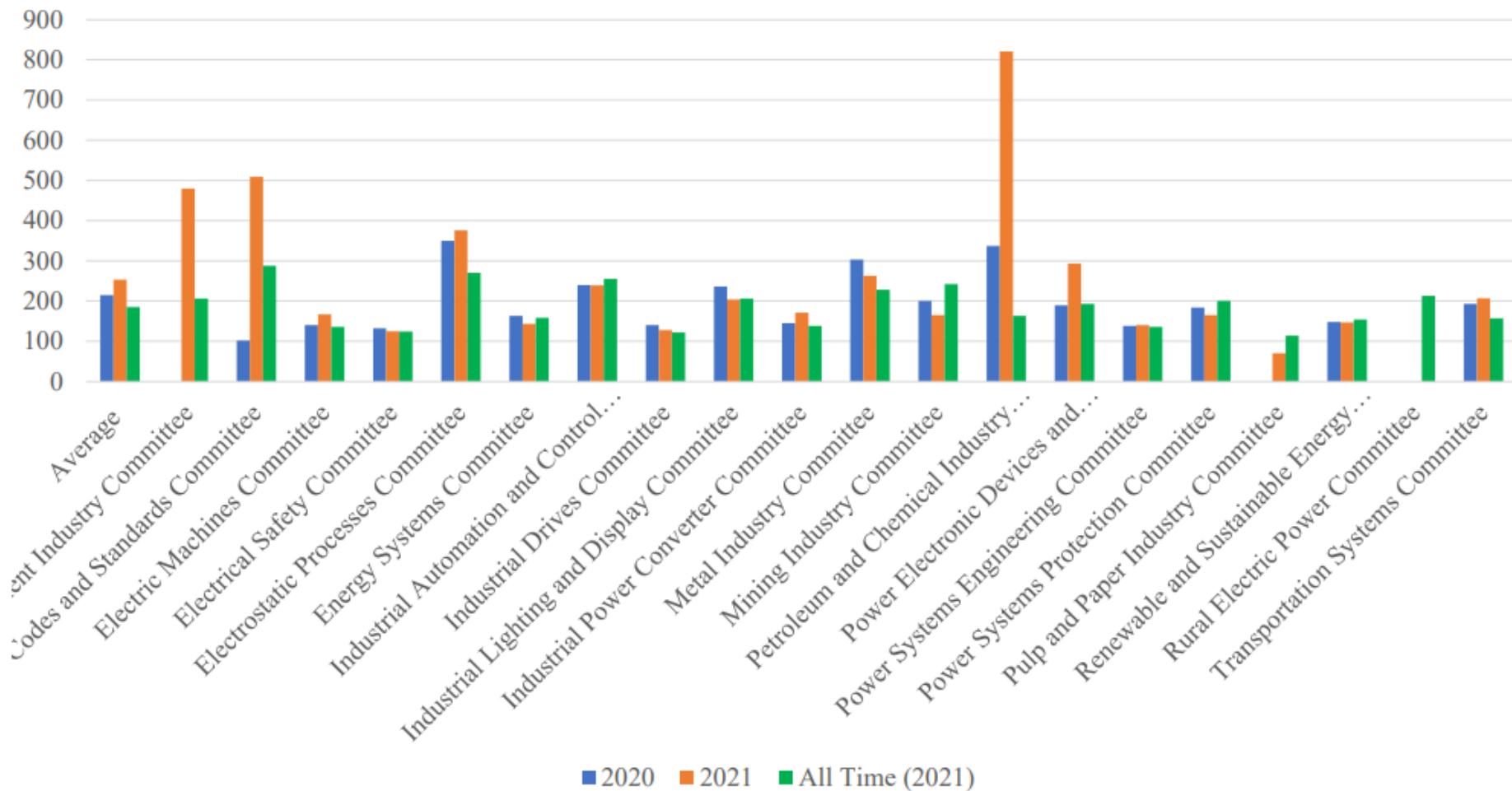
- **Red** numbers indicate increasing first decision time from 2020 to 2021
- **Blue** numbers indicate decreasing first decision time from 2020 to 2021
- **Black** numbers indicate equal first decision time from 2020 to 2021



IPCC average 1<sup>st</sup> Decision Time was 79 days in 2019 and 65 days in 2018)



# Average final decision time comparison



# Average final decision time

Average Final Decision Time	2020	2021	All Time (2021)
Average	215	253	185
Cement Industry Committee		480	206
Codes and Standards Committee	102	509	288
Electric Machines Committee	140	167	136
Electrical Safety Committee	132	125	124
Electrostatic Processes Committee	350	376	270
Energy Systems Committee	163	143	158
Industrial Automation and Control Committee	240	239	255
Industrial Drives Committee	140	128	122
Industrial Lighting and Display Committee	236	204	206
Industrial Power Converter Committee	145	171	138
Metal Industry Committee	303	263	228
Mining Industry Committee	200	165	242
Petroleum and Chemical Industry Committee	337	821	163
Power Electronic Devices and Components Committee	189	293	193
Power Systems Engineering Committee	138	140	136
Power Systems Protection Committee	184	165	200
Pulp and Paper Industry Committee		70	114
Renewable and Sustainable Energy Conversion Systems Committee	148	147	154
Rural Electric Power Committee			213
Transportation Systems Committee	193	207	157

- **Red** numbers indicate increasing final decision time from 2020 to 2021
- **Blue** numbers indicate decreasing final decision time from 2020 to 2021
- **Black** numbers indicate equal final decision time from 2020 to 2021



# Acceptance rates (past 12 months)

2021 Acceptance Rate By Committee	Magazine	Transactions	Reject	Total	Acceptance Rate
Cement Industry Committee	1	3	18	22	18.18%
Codes and Standards Committee	2	1	1	4	75.00%
Electric Machines Committee	6	106	38	150	74.67%
Electrical Safety Committee	10	4	5	19	73.68%
Electrostatic Processes Committee		10	1	11	90.91%
Energy Systems Committee	2	35	43	80	46.25%
Industrial Automation and Control Committee	4	63	74	141	47.52%
Industrial Drives Committee		35	46	81	43.21%
Industrial Lighting and Display Committee		3	4	7	42.86%
Industrial Power Converter Committee	1	95	82	178	53.93%
Metal Industry Committee	2	9	2	13	84.62%
Mining Industry Committee		4	3	7	57.14%
Petroleum and Chemical Industry Committee	1	1	1	3	66.67%
Power Electronic Devices and Components Committee	2	16	1	19	94.74%
Power Systems Engineering Committee	14	71	71	156	54.49%
Power Systems Protection Committee	1	24	12	37	67.57%
Pulp and Paper Industry Committee	2	3	11	16	31.25%
Renewable and Sustainable Energy Conversion Systems Committee	2	56	63	121	47.93%
Rural Electric Power Committee				0	
Transportation Systems Committee	2	27	21	50	58.00%
Average	52	566	497	1115	55.43%

- **Red** numbers indicate acceptance rates above 60%

- **Blue** numbers indicate acceptance rates below 60%

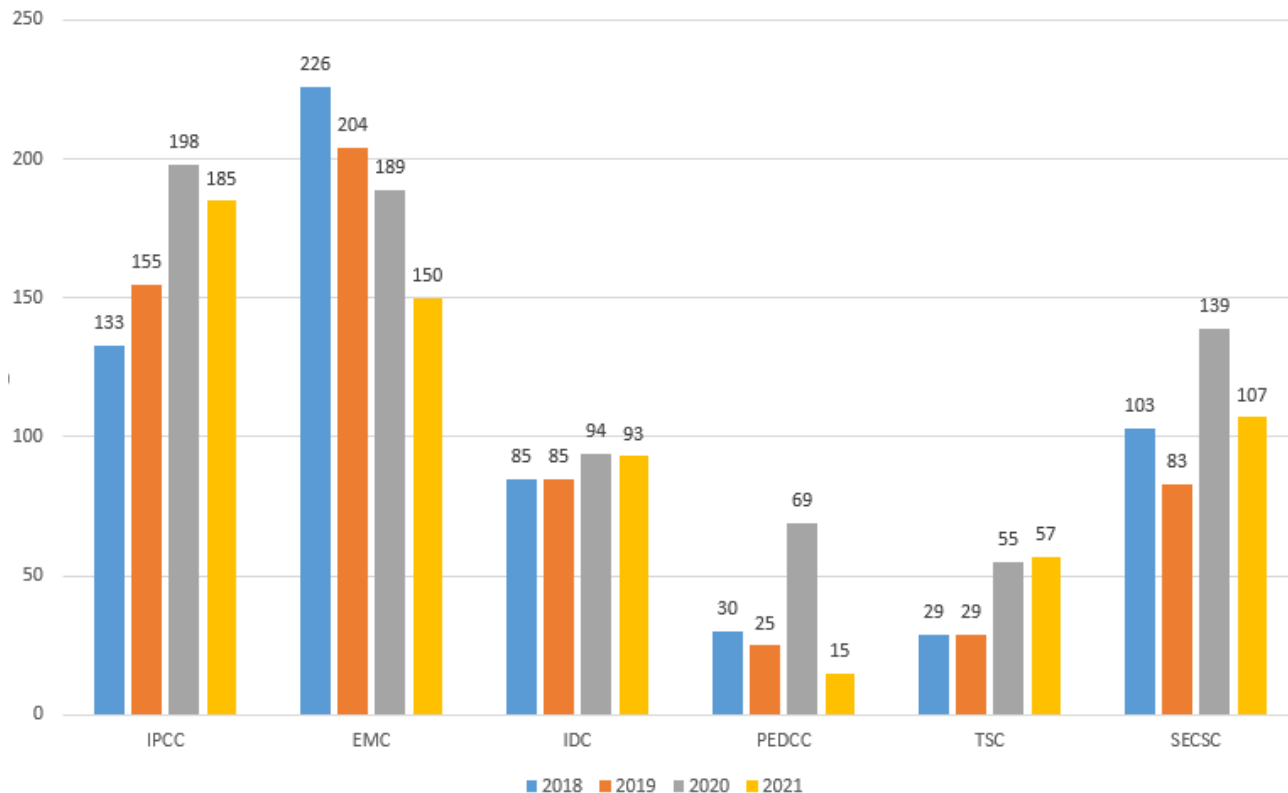
- Acceptance rate was 50.26% in 2020, 57.42% in 2019 and 53% in 2018



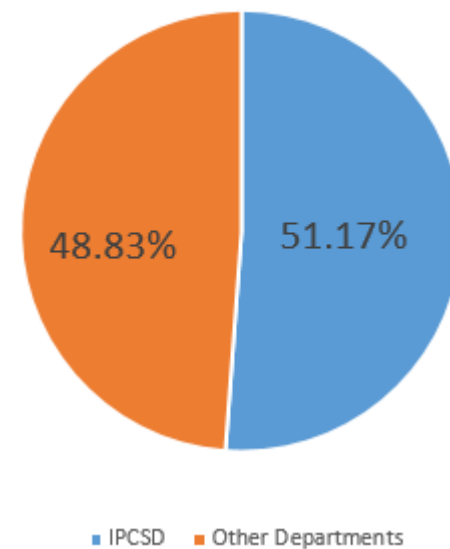


# Regular papers submission

Submitted papers last 12 months

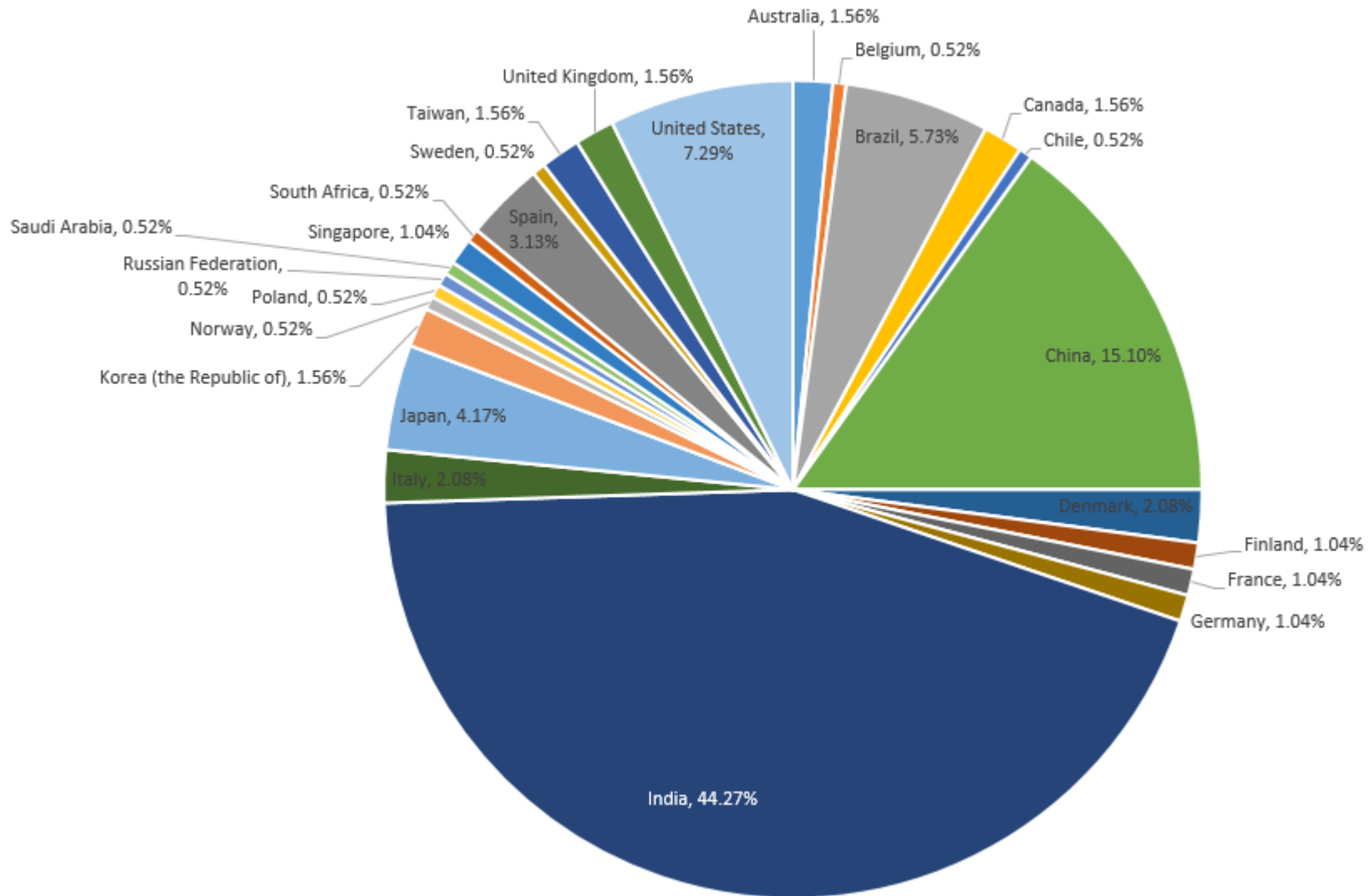


Submission by department

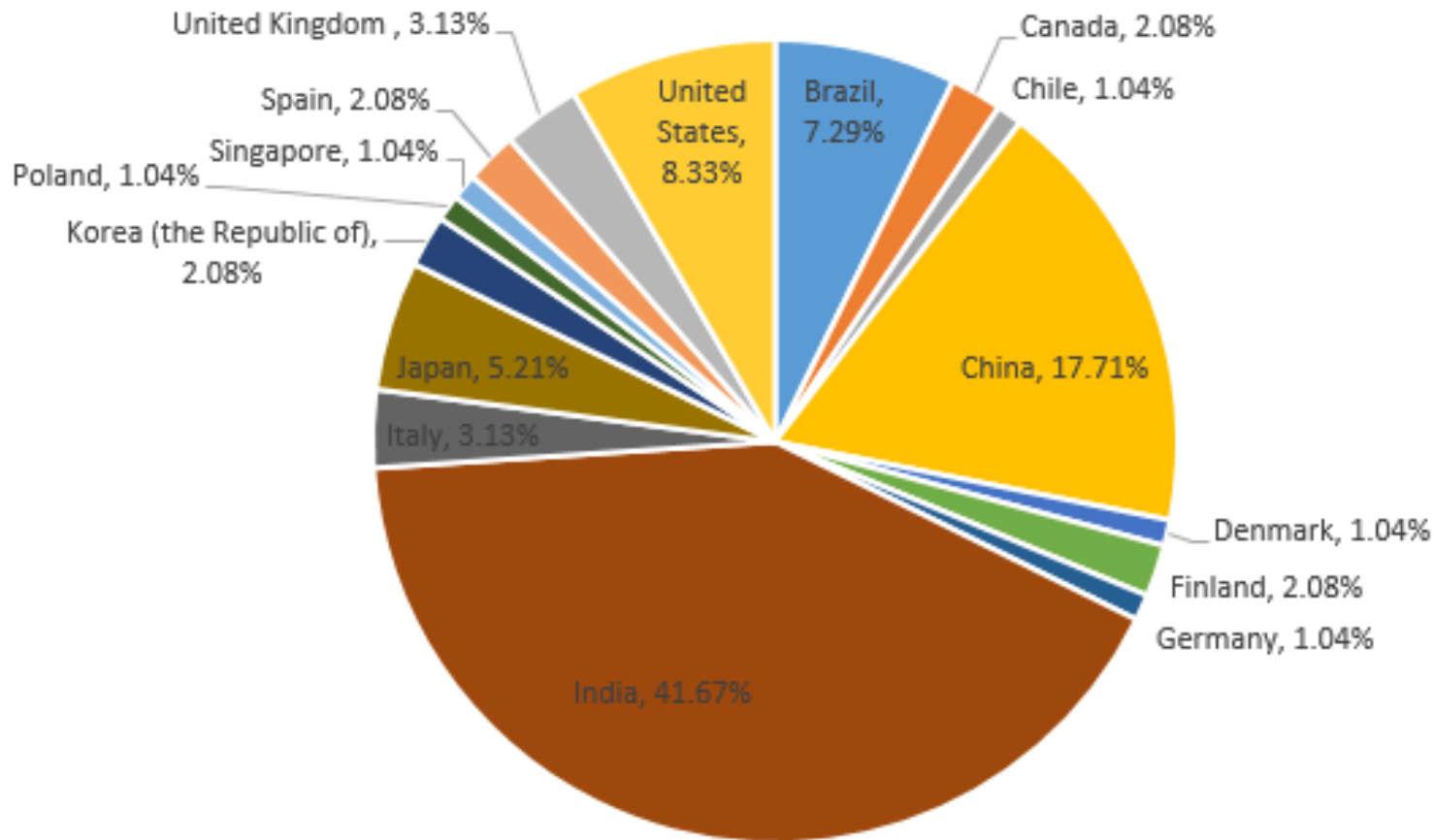


All submissions are 'post-presentation. Special issues paper are excluded.

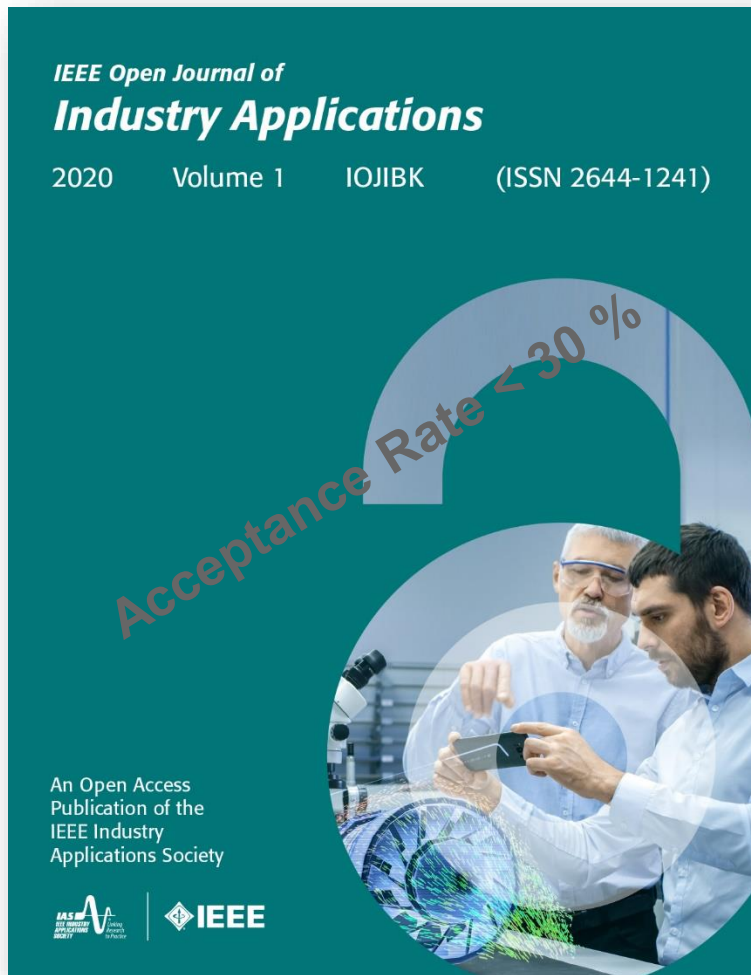
# Percentage of submissions by country



# Papers accepted by country (%)



# Open Access Journal



## Summary

- 50 papers accepted on a total of 150 submitted so far
- 23 papers published in the 2020 volume.
- For the 2021 issue we have already 27 papers – the number will increase by 31/12/2021
- Eliminating the invited papers, the acceptance rate so far is **29.5%**
- For papers submitted in 2021, the acceptance rate is lower (**24%**)

**PLEASE CITE PAPERS FROM THE OPEN JOURNAL**

Thanks for your attention

Questions?

Prize Paper Awards for ECCE 2020

Luca Solero

**Committee**

- **Liang Du**, Temple University, USA
- **Dong Jiang**, Huazhong University of Science and Technology, China
- **Petros Karamanakos**, Tampere University, Finland
- **Alessandro Lidozzi**, Roma Tre University, Italy
- **Xiaonan Lu**, Temple University, USA
- **Ke Ma**, Shanghai Jiao Tong University, China
- **Vito Monopoli**, Politecnico di Bari, Italy
- **Xu She**, United Technologies Corporation, USA
- **Luca Solero** (coordinator), *IPCC Chair*, Roma Tre University, Italy
- **Yongsug Suh**, Chonbuk National University, Republic of Korea
- **Junming Zhang**, Zhejiang University, China



The coordinator participated to the evaluation, in order to distribute the workload in a balanced way among all the committee members.

The **committee members and the coordinator** have been selected from the list of the **TIA Associate Editors for IAS-IPCC, excluding those who:**

- are co-authors of the papers in competition;
- have the same affiliation of co-authors of the papers in competition.

The **papers** presented at **ECCE 2020**, submitted to **IAS Transactions** before **December 31, 2020** and successively accepted were taken into consideration for the IPCC prize paper ballot.

- **11 papers** have been identified and included in the ballot.

## Next year ECCE Conference Prize

- Same process as in 2021
- Remember to submit your ECCE 2021 paper before December 31, 2021 to be included in the award evaluation.

## Next year IPCC will award 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> prize to Transactions on Industry Applications papers

- Papers must be published in 2021 and submitted for review through the IPCC.
- The top 10% of the published papers will be identified on the basis of the M-score received during the review process, they will be included in the ballot.

# First IPCC Prize Paper Award

**Cheng Huang, Jiantao Zhang, Tomoyuki Mannen  
and Takanori Isobe**

*Efficiency improvement with off-time discrete  
control for 1 MHz operated discontinuous current  
mode grid-tied inverter*

# Second IPCC Prize Paper Award

**Roberto Rosso, Soenke Engelken and Marco Liserre**

*Current limitation strategy for grid-forming  
converters under symmetrical and asymmetrical  
grid faults*

# Third IPCC Prize Paper Award

**Mi Tang, Stefano Bifaretti, Sabino Pipolo,  
Andrea Formentini, Shafiq Odhano and  
Pericle Zanchetta**

*Disturbance rejection ability enhancement  
using repetitive observer in phase-locked loop  
for more electric aircraft*

# IPCC Officers and Subcommittee Chairs



## **Active Officers for 2021**

- Prof. Luca Solero – chair
- Dr. Xiaonan Lu – vice-chair
- Prof. Yongsug Suh – secretary
- Dr. Grant Pitel – past chair

# Appointment of the New Secretary

- The Organization Sub-Committee and the Executive Sub-Committee have worked together for the appointment
- On June 10<sup>th</sup>, a message was sent to all the IPCC members asking for nominations to Secretary
- Deadline for nominations submission was July 31st
- IPCC Officers must be IAS members and IPCC members
- 6 nominations received
- Industry affiliation was a decisive element for the final decision

# Appointment of the New Secretary



**Dr.**  
**Wenkang**  
**HUANG**

- Technical Director / Sr. Manager at Infineon Technologies, USA (2015-Present)
- Manager at International Rectifier, USA (2001-2006, 2010-2014)
- Ph.D., Northeastern University (2017)
- IPCC Special Activities Chair (2021)
- Topic Chair, IEEE ECCE (2019-2021)
- Associate Editor, IEEE Transactions on Power Electronics (2017-Present)
- Co-Editor-in-Chief, IEEE Open Journal of Power Electronics (2019-Present)

## Fellow and Award Nominating Chair for 2021

- **Prof. Po-tai Cheng**

## Appointment of the new Fellow and Award Nominating Chair

### Nomination: **Mr. Robert N. Guenther**



- Past Vice President of Product Development for NWL
- Active in both the IEEE Power Electronics Society and the IEEE Industry Applications Society
- Served 3 years on the PELS advisory committee
- Served as PELS Fellows committee chair
- Past deputy editor of the Power Electronics Magazine and member of the Industrial Advisory Board
- Past secretary, vice-chair, and chair of the IAS Industrial Power Converter Committee
- Co-developed and co-presented three IAS seminars on the theory and design of magnetic components

### **Awards**

- 2005 IEEE Fellow (contributions to HV HF power conversion technology)
- 2018 ISEP Senichi Masuda Award
- 2021 IEEE IAS Kliman award

## Standards Chair for 2021

- **Dr. Lixiang Wei**

## Appointment of the new Standards Chair

### Nomination: **Prof. Lee Empringham**

- Professor at The University of Nottingham
- Director of the Power Electronics Thematic Spoke – Advanced Propulsion Centre, UK
- Deputy Director, Automotive Challenge Network - Engineering and Physical Science Research Centre (EPSRC)
- Lead for the ‘Heterogeneous Integration’ Theme – Tranche 2 EPSRC Centre for Power Electronics
- Co-founder and director of “The Thinking Pod Innovations Ltd” (TTPi) Start-up and Spin-out of the PEMC Group at UoN.

### Key industrial collaborators

- US Army Research Labs, Boeing, ITT, Liebherr Aerospace, GE Aviation, Airbus, ITT, Infineon, Jaguar Land rover, Bentley.

### The Thinking Pod Innovations Ltd

- Incorporated in 2017, became a spin-out of the University of Nottingham in 2020. The main focus of TTPi is the exploitation of innovative design, control and manufacturing techniques to fully utilise wide bandgap semiconductors in the Energy, automotive and industrial sectors.



## Transactions Review Chair for 2021

- **Prof. Pericle Zanchetta**

## Appointment of the new Transactions Review Chair

Nomination: **Prof. Stefano Bifaretti**



**Stefano Bifaretti**, University of Rome *Tor Vergata*, Italy

- Associate Professor of Power Electronics and Electric Drives
- Co-founder of the Centre for Power Electronics and Drives (C-PED)
- Involved in many R&D international projects on Power supplies for Fusion Energy, Power Electronics for Electricity Network Management, EV Fast charging stations
- Co-author of more than 100 scientific papers and 2 academic books

### ***Main Editorial Activities***

- **2017** to date: IAS-IPCC *Transactions Review Co-Chair*
- **2014** to date: IAS-IPCC *Associate Editor*
- **2018**: IEEE ECCE *Vice-Chair*
- **2012 – 2021**: IEEE ECCE *Topic Chair*



## Transactions Review co-Chair for 2021

- **Prof. Stefano Bifaretti**

## Appointment of the new Transactions Review co-Chair

Nomination: **Dr. Shafiq Ahmed Odhano**

### Shafiq Odhano

- Lecturer in Electric Drives at Newcastle University, UK (since March 2020)
- Previous affiliations
  - University of Nottingham, UK (research fellow 2016 - 2020)
  - Politecnico di Torino, Italy (researcher 2014 - 2016)
- Co-author of more than 50 international conference and journal publications
- European Liaison Officer for IAS-IPCC (since January 2020)

### ***Main Editorial Activities***

- Transactions on Industry Applications *Associate Editor*
- IEEE Open Journal of Industry Applications *Associate Editor*
- IEEE Journal of Emerging and Selected Topics in Power Electronics *Guest Associate Editor*
- IEEE ECCE *Topic-Chair*





## Special Activity Chair for 2021

- **Dr. Wenkang Huang**

## Appointment of the new Special Activity Chair

### Nomination: **Prof. Elisabetta Tedeschi**

- 2014 - now Full Professor at the Norwegian Univ. of Science & Technology (NTNU)
- 2020 – now Full Professor at the University of Trento, Italy

**Research interests:** design, control and optimization of power electronic systems for renewable energy integration and power transmission & distribution, with special focus on offshore applications.

#### Service to the community

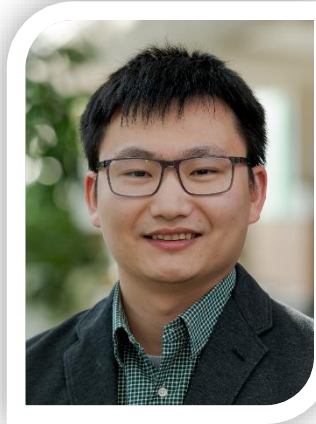
- 2021 Technical Program Co-chair, IEEE ECCE2021 Conference
- 2021 Member of the Technical Board of IEEE CPE-POWERENG 2021 Conference
- 2020 - now Associate Editor, IEEE Access
- 2020 Topic Chair for: “Topics in control, modelling and optimization of power converters” of the IEEE ECCE20 Conference
- 2019 Member of the Steering Committee of the 5<sup>th</sup> IEEE Southern Power Electronics Conference, IEEE SPEC/COBEP 2019
- 2019 Topic Chair for: “Topics in control, modelling and optimization of power converters” of the IEEE ECCE19 Conference
- 2018 Member of the Program Committee of the 19<sup>th</sup> IEEE-COMPEL 2018
- 2016 Program chair of the 17<sup>th</sup> IEEE COMPEL 2016
- 2015 Member of the Technical Program Committee of the Smart 2015 Conference
- 2013 Topic Chair for: “Stability and power quality” of the IEEE ECCE 2013 Conference
- 2012 - 2021 Member of the Program Committee of the EVER-Monaco Conferences

# Appointment of the new Special Activity co-Chair

## Nomination: Dr. Tianqi Hong

### MAJOR INDUSTRIAL EXPERIENCE

<b>Energy Systems Scientist, Argonne National Laboratory, Lemont, IL</b>	2020 – Now
Research topics: Power electronics system, renewable integrations	
<b>Postdoctoral Appointee, Argonne National Laboratory, Lemont, IL</b>	2018 – 2020
Research topics: power converters, microgrids	
<b>Senior Research Scientist, Unique Technical Services LLC, Stony Brook, NY</b>	2016 – 2018
<ul style="list-style-type: none"> <li>Automotive-grade power electronics converter design and manufacture</li> <li>Hardware design of medium power dc microgrid testbed</li> <li>System-level design of fuel cell based medium power microgrid system</li> </ul>	



- Editorial Board Member of International Transactions on Electrical Energy Systems

- Editor of IEEE Transactions on Power Delivery

- Topic Chair at IEEE ECCE 2021

- Panel Chair at IEEE GreenTech 2021

**Research interests:** Power Converters, Electromagnetic Design, Transportation Electrification, Distributed Energy Resource Integration.

### SELECTIVE PROJECT EXPERIENCE

<b>Modular Hybrid Solid State Transformer (H-SST) for Next Generation Flexible and Adaptable LPT</b>
<ul style="list-style-type: none"> <li>Modeling and controller simulation of hybrid solid state transformer with dual-active-bridge topology</li> </ul>
<b>Modular Semi-Dual Active Bridge Converter Development with Adaptive Zero Voltage Switching Control</b>
<ul style="list-style-type: none"> <li>Modularized semi-dual active bridge converter power stage design</li> <li>Magnetic integration, potting, and thermal management</li> </ul>
<b>Modular Programmable Electronics AC Load for Electric Aircraft (Supported by Boeing)</b>
<ul style="list-style-type: none"> <li>Power stage design of hybrid multilevel voltage source inverters</li> </ul>
<b>Dual Output DC-DC Converter Driving Aircraft DC-AC Inversion System</b>
<ul style="list-style-type: none"> <li>Prototype design, hardware assembly and bring-up tests</li> </ul>

## Liaison Officers for 2021

- Prof. Junichi Itoh (Japan) - Asian Liaison
- Prof. Jeehoon Jung (South-Korea) – Asian Liaison
- Prof. Petar Grbovic (Austria) – European Liaison
- **Dr. Shafiq Odhano (UK) – European Liaison**



## Appointment of the new European Liaison Officer

### Nomination: **Dr. Petros Karamanakos**

- Education
  - 2013: **Ph.D. (Dr.-Eng.)** in Electrical and Computer Engineering, **National Technical University of Athens**, Athens, Greece
- Working experience
  - 2016-Present: **Assistant Professor**, **Tampere University**, Finland
- IEEE-related involvement (highlights)
  - 2020-Present: **Associate Editor**, IEEE IAS IPCC
  - 2020-Present: **Associate Editor**, IEEE Open Journal of Industry Applications (OJ-IA)
  - 2020-2021: **Guest Editor**, “Model predictive control of power electronic systems in industrial applications”, IEEE OJ-IA
  - 2021-2022: **Guest Associate Editor**, “Integrated control and modulation for electric drives”, IEEE JESTPE
  - 2021: **Technical Program Committee Vice Chair**, IEEE ECCE

# ECCE 2022 Update

October 2021



IEEE ENERGY CONVERSION CONGRESS & EXPO

 Detroit, Michigan, USA  Oct. 9-13



# Motor City - Detroit

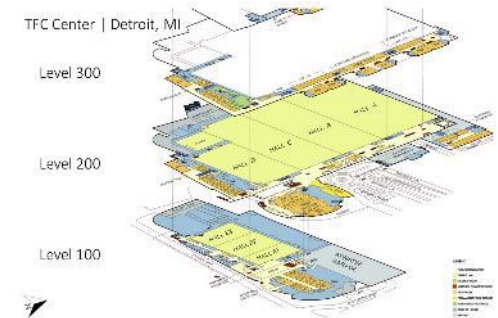
- Venue : Detroit, Michigan (TCF Center)
- Dates : October 9-13, 2022





# TCF Convention Center:

- Award winning TCF Center
- Waterfront and outdoor river view terraces
- Excellent facilities





# Hotel #1:

- ▣ Detroit Marriott at the Renaissance Center

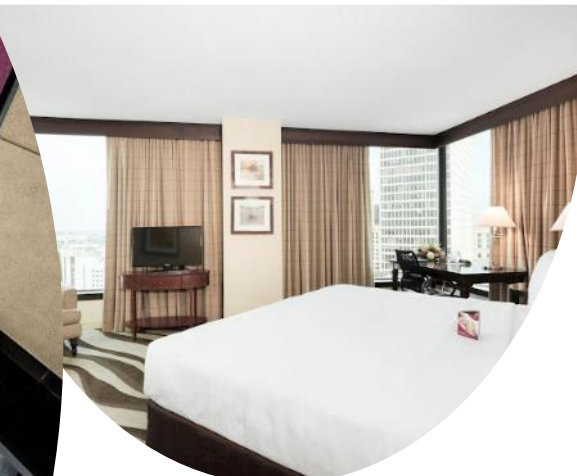
Nice hotel at the landmark GM Renaissance Center



## Hotel #2:

# Crowne Plaza Detroit Downtown Riverfront

2nd hotel with nice riverfront  
amenities





# Attractions:

## ■ Henry Ford Museum of American Innovation

- Iconic Museum
- ECCE 2022 will hold Industry Networking Event in the Henry Ford Museum !!



# Attractions:

City of Detroit has many attractions !

- Ford Museum
- Motown Museum
- GM Renaissance Center
- Downtown Riverfront, River Tours
- Eastern Market
- Ford Piquette Avenue Plant
- Detroit Institute of Arts
- Detroit Jazz Festival
- Fox Theatre



# Calendar:

For details visit our website:  
<http://www.ieee-ecce.org/2022/>

## Important dates

- Jan. 15<sup>th</sup>, 2022 – Deadline for digest submissions
- May 1<sup>st</sup>, 2022 – Decision notification for Digests
  
- Feb 11<sup>th</sup>, 2022 – Deadline for Tutorials
- April 8<sup>th</sup>, 2022 – Decision Notification for Tutorials
  
- April 1<sup>st</sup>, 2022 – Deadline for Special Sessions
- May 20<sup>th</sup>, 2022 – Decision Notification for Special Sessions
  
- July 1, 2022:
  - Final papers with copyright forms
  - Full tutorial Materials Due
  - Special Session Plans Due



# ECCE 2022 Team (interim)

- General Chair: [Emmanuel Agamloh](#)
- Finance Chair: [Shanelle Foster](#)
- TPC Co-Chairs: [Navid Zargari](#), [Annette Muetze](#), [Mohammad Islam](#), [Andrea Cavagnino](#),  
[Gerry Moschopoulos](#), [Brandon Grainger](#)
- Publication Chairs: [Jiangbiao He](#), [Xiaonan Lu](#), [Silvio Vaschetto](#)
- Local Chairs: [Abraham Gebregergis](#), [Al-Thaddeus Avestruz](#)
- Exhibit Chairs: [David Morrison](#), [Grant Pitel](#)
- Industry Partnership Chairs: [Avoki Omekanda](#), [Maz Chowdhury](#), [Joseph Song-Manguelle](#)
- Tutorial Chairs: [Pete Wung](#), [Xu She](#), [Xiaonan Lu](#)
- Special Session Chair: [Yue Cao](#), [Sara Roggia](#)
- Publicity Chairs: [Zheyu Zhang](#), [Zhi \(George\) Gao](#)
- Plenary Session Chair: [Yunwei \(Ryan\) Li](#), [John Shen](#)
- Student Activities Chair: [Xiu Yao](#), TBD
- Electronic Media Chair: [Anant Singh](#)
- Webmaster: [Dong Cao](#), [Yuan Li](#)
- Women in Engineering Chairs: [Norma Anglani](#), [Lijun, He](#); [Jin Ye](#),
- Awards Chair: [Akshay Rathore](#), TBD

**We need volunteers, TCs, VCs, Reviewers!!**

## Promotional video link:

[https://www.ieee-ecce.org/2022/wp-content/uploads/sites/9/2021/09/ECCE-2022-Publicity-Video.mp4?\\_=1](https://www.ieee-ecce.org/2022/wp-content/uploads/sites/9/2021/09/ECCE-2022-Publicity-Video.mp4?_=1)



**See you in Detroit, October 9-13, 2022!**



## Topic chairs and session chairs needed for ECCE 2022

- Business cards collected in Virtual Mode for candidate topic chairs and session chairs.
- **Volunteers send an email message (first name, last name, email address, preferred topics from the list in the next page) to the Committee Secretary by November 15<sup>th</sup> [yongsug.suh@gmail.com](mailto:yongsug.suh@gmail.com)**
- Names and email addresses will be collected

## **A. Power Converter Topologies**

1. DC-DC non-isolated
2. DC-DC isolated
3. AC-DC single-phase
4. AC-DC multi-phase
5. DC-AC single-phase
6. DC-AC multi-phase
7. AC-AC converters
8. Multi-level converters

## **B. Control, Modelling and Optimization of Power Converters**

1. Power converter control
2. Power converter EMI
3. Stability of converters / systems
4. Converter power quality
5. Reliability, diagnostics and fault analysis of power converters
6. Other topics in control, modelling and optimization of power converters

Motion to Adjourn.

THANK YOU  
MEMBERS!



THANK YOU VOLUNTEERS!

FAREWELL!

SEE YOU IN DETROIT!!!!

