



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

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Annual Meeting

October 29, 2021

Chair – Adel Nasiri, USA

Vice Chair and TPC – Akshay Kumar Rathore, Canada

Vice Chair of Conferences – Ke Ma, China

Secretary – Eduard Muljadi, USA

Past Chair – Yilmaz Sozer, USA

# Agenda

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- Approval of 2020 Meeting Minutes
- RSECS Committee Election of Officers for 2022-2023- Yilmaz Sozer
- TCPRC Report – Akshay Rathore
- ECCE Activities 2020 – Ke Ma, Ed Muljadi
- IAS-RSECS Committee Co-Sponsored Conferences – Adel Nasiri
- Associate Editors for IAS Transaction on Industry Applications- Akshay Rathore
- RSECS Prize Paper Awards – Adel Nasiri
- ECCE 2021- Emmanuel Agamloh (ECCE 2022 General Chair)

# EC Nominations and Elections

## SECTION III. COMMITTEE ORGANIZATION

### A. Officers

Chair  
Vice-Chair & Technical Paper Review Chair (TPC)  
Vice-Chair  
Secretary

### C. Election, Appointment and Term of Office

1. All Committee officers shall normally serve a two-year term of office commencing on January 1.
2. The Chair will be succeeded by the Vice-Chair & TPC.
3. The Vice Chair & TPC will be succeeded by the Vice-Chair.
4. The Vice-Chair will be succeeded by the Secretary.
5. Election of officers is conducted at the Annual RES Committee Meeting, (section VI). Every second year the Nominating Subcommittee will propose a slate of one or more candidates for the office of Secretary, as discussed in Section V. The Nominating committee will accept suggestions for nominations for the Secretary up to 2 months before the annual meeting. Nominations will not be accepted from the floor at the annual meeting. In the intervening years, a motion will be held to continue with the existing executive committee.
6. If, for any reason, an Officer (either a Committee Officer or a Subcommittee Chair) is unable to serve the full term of their office, a temporary appointment shall be made by the Chair to complete the unexpired term. In the event that the Chair is unable to serve the full term, the IPCSD Chair will appoint an interim chair to complete the unexpired term.

# EC Nominations and Elections

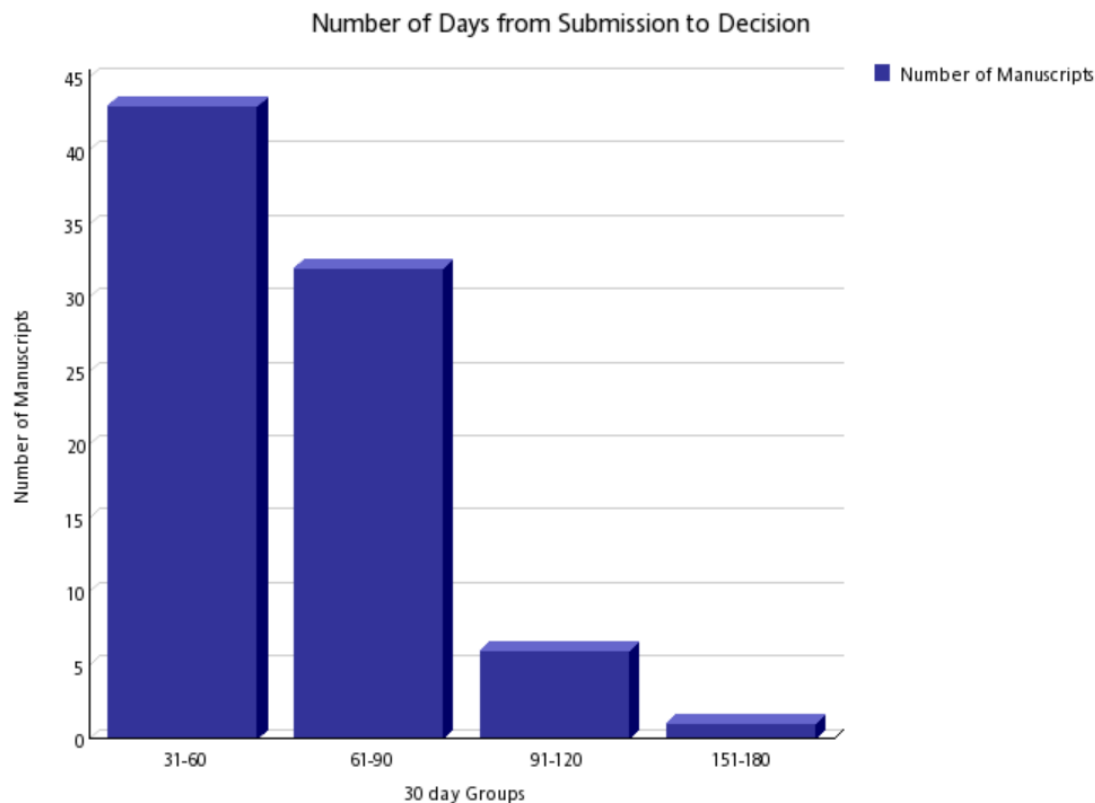
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- Chair – Akshay Kumar Rathore , Canada
- Vice Chair & TPC –Ke Ma, China
- Vice Chair – Eduard Muljadi USA
- Secretary – Behrooz Mirafzal USA
- Past Chair – Adel Nasiri, USA

Behrooz Mirafzal is a professor in power electronics and energy conversion systems at Kansas State University. He has many publications and patents in power engineering. Prior to joining academia, he was a research engineer in the R&D group of Rockwell Automation/Allen-Bradly in Wisconsin.

# Publications Chair Report

- New Manuscripts submission to Renewable and Sustainable Energy Conversion Systems Committee:
  - **Total 82 (Nov 2020 to Oct 2021);**
- **Average Submission to First Decision Time: 63 days**



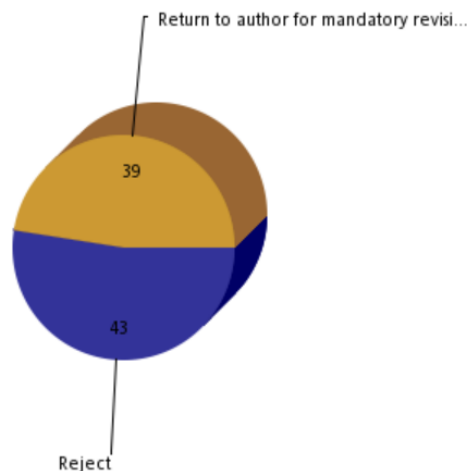
# IAS Transactions and Magazine Decision Ratio

Submission to Renewable and Sustainable Energy Conversion Systems Committee

Nov 2020-Oct 2021

Decision Ratio By Manuscript Type

Decision  
■ Reject  
■ Return to author for mandatory revisions (t...



Decision	# Manuscripts	Percentage
<a href="#">Reject</a>	43	52.44%
<a href="#">Return to author for mandatory revisions (to address reviewer comments)</a>	39	47.56%
<b>Total:</b>	<b>82</b>	<b>100.00%</b>

First Submission to Decision

# IAS Transactions and Magazine Decision Ratio

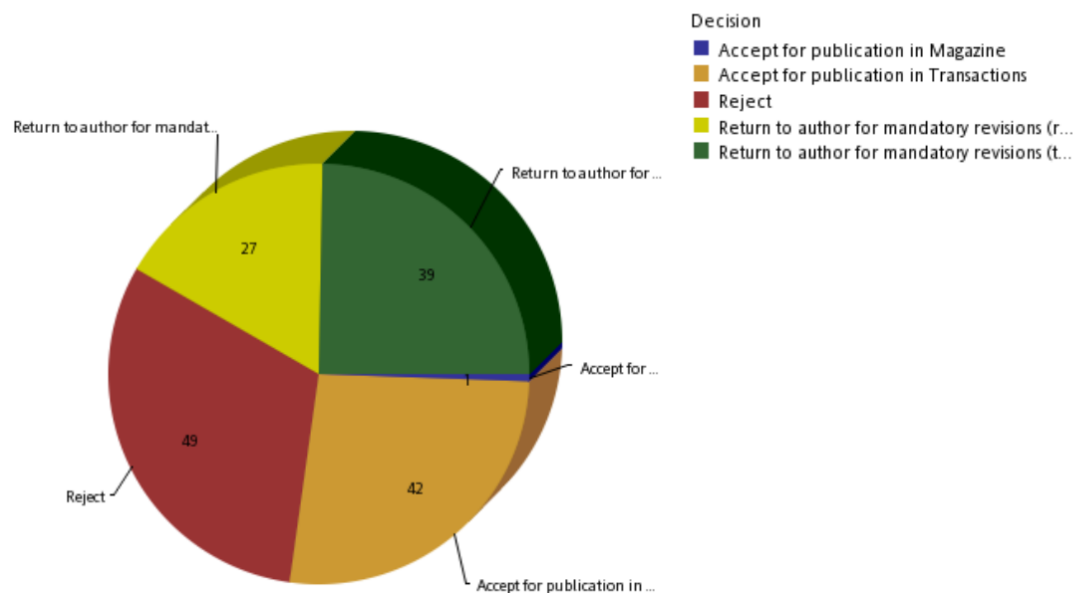
## Submission to Renewable and Sustainable Energy Conversion Systems Committee

Nov 2020-Oct 2021

Renewable and Sustainable Energy Conversion Systems Committee

Number of Manuscripts: **158**  
**99.37%** of all Manuscripts

Decision Ratio By Manuscript Type



Decision	# Manuscripts	Percentage
<a href="#">Accept for publication in Magazine</a>	1	0.63%
<a href="#">Accept for publication in Transactions</a>	42	26.58%
<a href="#">Reject</a>	49	31.01%
<a href="#">Return to author for mandatory revisions (rto address reviewer comments)</a>	27	17.09%
<a href="#">Return to author for mandatory revisions (to address reviewer comments)</a>	39	24.68%
<b>Total:</b>	<b>158</b>	<b>100.00%</b>

# First Decision Time: Renewable and Sustainable Energy Conversion Systems Committee

Statistics by Manuscript Type (Final Decisions Only):

Days to Final Decision

Manuscript Type	Count	Accept	Acc. Ratio	Reject	Rej. Ratio	Average	Median	Minimum	Maximum
<a href="#">Renewable and Sustainable Energy Conversion Systems Committee</a>	70	24	34.29	46	65.71	102.03	74.50	33.00	316.00
<b>Total/Average</b>	<b>70</b>	<b>24</b>	<b>34.29</b>	<b>46</b>	<b>65.71</b>	<b>102.03</b>	<b>74.50</b>	<b>33.00</b>	<b>316.00</b>

# Thanks to Our Outgoing Associate Editors

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- Mohamed Badawy (USA) \*
- Ahmed Elasser(USA) \*
- Altin Necmi (Turkey) \*

# Thanks to Associate Editors

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- Ke Ma (China), since 2017
- Dinesh Kumar (Denmark) , since 2017
- Saban Ozdemir (Turkey), since 2019
- Yigeng Huangfu (China), since 2020
- Yang Yongheng (Denmark), since 2020
- Xu She (USA), since 2020
- Tausif Husain (USA), since 2018
- Mona Ghassemi (USA), since 2018
- Mohammad Shadmand (USA), since 2019
- Akanksha Singh (USA), since 2020
- Vinod Khadkikar (UAE), since 2020
- Suwendu Samanta (India), since 2021

# Submitting Papers for IAS Transactions

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- The IAS RES Committee welcomes for review and possible publication in IEEE Transactions on IAS papers that have been presented within the last year at an IAS technically sponsored conference, such as ECCE, IAS Annual Meeting, APEC, ICEM.
- In order to submit a paper, please email the following information to the Technical Paper Review Chair (TPC) with the following information: (1) corresponding author's first and last name; (2) corresponding author's e-mail address; (3) manuscript title; (4) conference name; (5) year of presentation; together with a PDF of your Conference paper, as it was published in the Conference proceedings.

# Changes for Submission to IEEE IAS Trans. and Magazine

- Conference papers recommended for publication **MUST BE REVISED** before publication in IEEE Transactions on Industry Applications or IEEE Industry Applications Magazine.
- There is no hard metric on how much revision is required. Instead, authors must be comfortable that they are compliant with the long-standing rule that they are not seeking multiple publication of a paper. (Unlike other Societies, we are not requiring a specific amount of change in the revision).
- Reviewers and the Associate Editor are also expected to be comfortable that the paper offers information not included in the earlier conference version.
- The revised version **MUST** include a reference citation pointing to the earlier conference version.

# Changes for Submission to IEEE IAS Trans. and Magazine

- The authors may consider **changing the title, adding references, adding or simplifying illustrations, and adding or simplifying text** in the body of the paper.
- The authors are asked to provide a **BRIEF description** ( $\pm 200$  words) of the revisions in the cover letter field in Scholar 1.
- The policy change has been adopted and we are obligated to proceed with implementation in IAS.
- Conference papers that are approved for publication without revision will be returned to the responsible technical committees for revision.
- Exceptions to the 'presentation first' policy are only made for 'special issues' of IAS Transactions as authorized by the IAS Executive Board.

# ECCE 2021 Technical Program

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- ECCE 2021 and TPC meetings are totally virtual-based.
- 1576 digest submissions, 11% less compared to last year (1779).
- 27 Vice Chairs (VC) and 179 Topic Chairs (TC) serving for 12 tracks to handle the digests review and sessions design.
- Number of digests per Topic Chair (TC) limited to 10, avg. 4 reviews pr. paper to make a decision.
- The program includes 892 technical papers, 24 presentation-only special sessions, 17 Tutorials

# 2021 ECCE Paper Review

ECCE level

Admin

6 TPCs

Chairs

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

179 x Topic Chairs (TCs)

Reviewers

~1656 active reviewers  
~6966 reviews

Reviewers

Reviewers

# 27 Vice Chairs from IAS and PELS

Track Name	Track	Vice Chair	Vice Chair	Vice Chair
◆ Renewable and Sustainable Energy Applications	A	Ke Ma	Sudip Mazumder	
◆ Smart Grid and Utility Applications	B	Eduard Muljadi	Wei Qiao	
◆ Big Data, Machine learning, Cyber security and design automation	C	Kevin Hermanns		
◆ Transportation Electrification Applications	D	Mohammad Anwar	Mahesh Krishnamurthy	Fei Gao
◆ Power Converter Topologies	E	Luca Solero	Yongsug Suh	Hanh-Phuc Le, Khurram K. Afridi
◆ Controls, Modelling and Optimization of Converters	F	Xiaonan Lu	Petros Karamanakos	Khurram K. Afridi
◆ Electrical Machines	G	Greg Heins	Rukmi Dutta	Antonio J. Marques Cardoso
◆ Electric Drives	H	Jul-ki Seok	Ali Bazzi	
◆ Power Semiconductor Devices, Passive Components, Packaging, Integration, and Materials	I	Tanya Gachovska	Francesco Iannuzzo	
◆ Energy Efficient Systems Applications and Lighting Technologies	J	Marco Dalla Costa		
◆ Emerging Technologies and Applications	K	Huai Wang	Maryam Saeedifard	
◆ Conflict of Interest	M			

# ECCE 2021 Contributions –Track A

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

Subtrack	Topic	Papers submitted	Topic Chairs
<b>A1</b>	Wind	23	<b>Paul Barendse Xiaofeng Yang</b>
<b>A2</b>	Solar	28	<b>Yongheng Yang Meiqing Mao Georgios Konstantinou</b>
<b>A3</b>	Power Converter Topologies for Renewables	73	<b>Kaushik Basu, Necmi Altin Yue Zhao, Alireza Safaee Akanksha Singh, Ngoc Ha Pham Gab-Su Seo, Yigeng Huangfu</b>
<b>A4</b>	Energy Storage	18	<b>Hengzhao Yang Satarupa Bal</b>
<b>A5</b>	Hybrid Renewable Sources	3	<b>Xiaofeng Yang</b>
<b>A99</b>	Other topics in renewable and sustainable energy	13	<b>Jae-Do Park</b>

# ECCE 2021 Contributions – **Track A**

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- 156 papers in 6 sub-tracks received in Track A
- 86 papers were accepted, acceptance rate 55 %
- ECCE 2020 was decided to be virtual conference after sessions were designed – withdrawn papers and changing/merging of sessions
- All technical sessions were video-based on demand.
- **Special thanks to our topic and session chairs!**

# ECCE 2021 Contributions – Track B

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

Sub-track	Title	Submitted Papers	Topic Chairs
B01	Renewable Energy Grid Integration	50	Jianwu Zeng, Taesik Kim, David Wenzhong Gao
B02	Distributed Resources and Microgrids	42	Rafael Pena Alzola, Huaiguang Jiang
B03	HVDC and FACTS	18	Gregory Kish, Nathan Weise
B04	DC Distribution and DC Microgrids	19	Kumaraguru Prabakar, Zach Smith

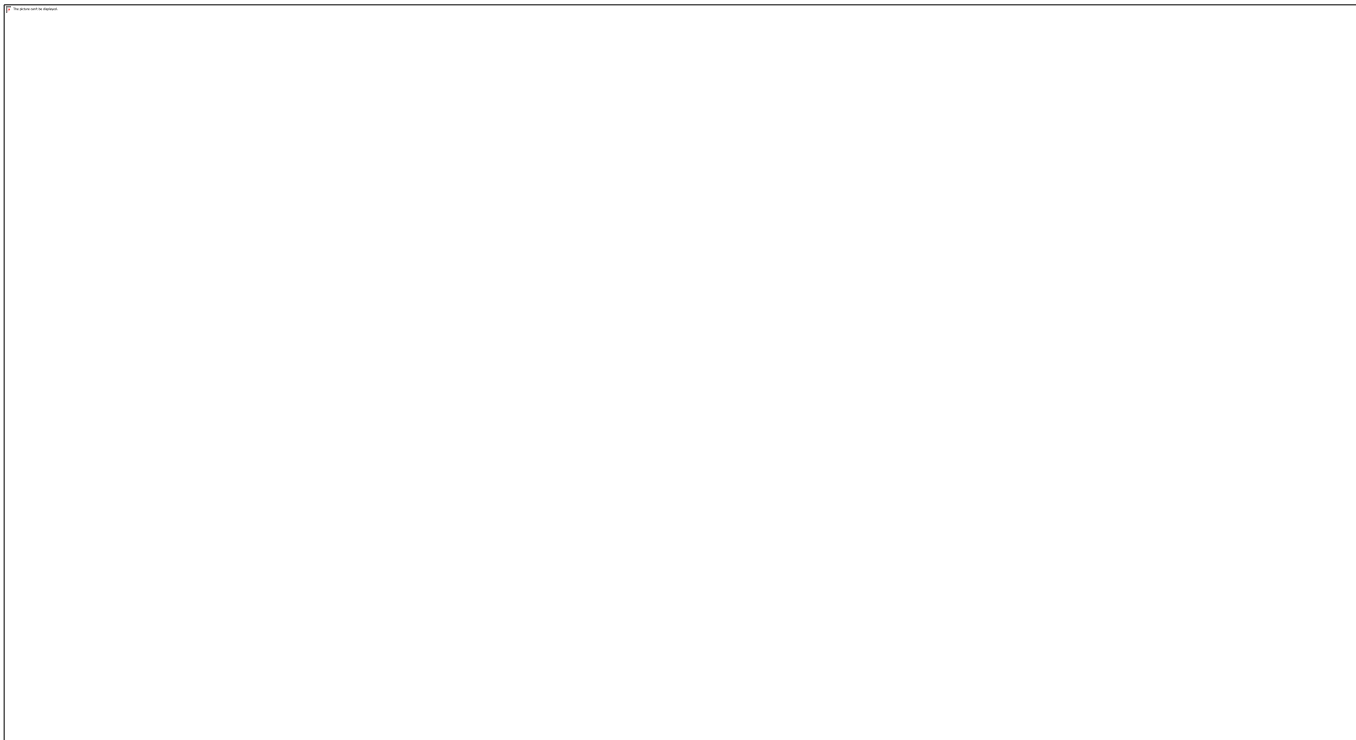
# ECCE 2021 Contributions – Track B

Sub Track	Title	No. of Submitted Papers	Topic Chairs
B05	AC Distribution and AC Microgrids	11	Hashim Al Hassan, Hamed Nademi
B06	Electronic transformer and other grid devices	21	Xu She, Tiefu Zhao
B07	V2G and G2V	8	Ryan Brody, Zhe Zhang
B08	Stability and power quality	17	Heng Wu
B09	Smart buildings and appliances	4	Liang Du
B99	Other topics	10	Josue Campos do Prado

# APEC 2022 Contributions

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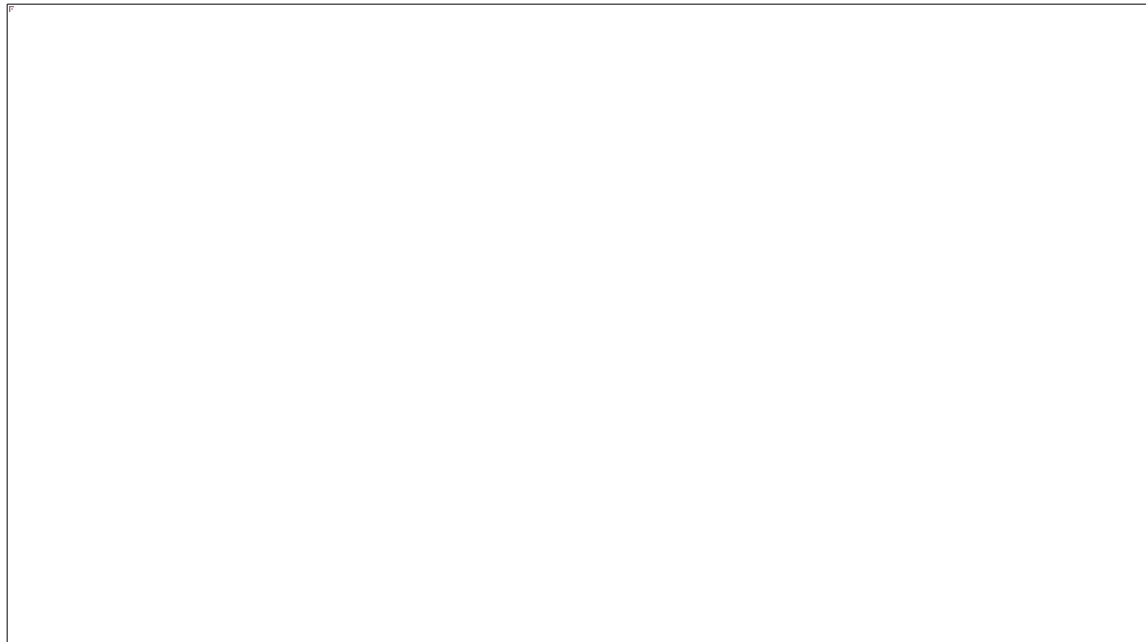
- An industry session in collaboration with PSMA (Power Sources Manufacturers Association).
- Adel Nasiri as an organizer and a potential speaker.



# ICRERA (Istanbul) 2021 Contributions

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- IAS and PELS sponsored annual conference.
- 109 papers from 34 countries.
- Co-sponsored by the committee. Selected papers can be submitted to IAS Transactions.
- Adel Nasiri delivered a tutorial on “High Power Dual Active Bridges Design, Modeling, and Implementation”.



# RESC Best Paper Awards Committee

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- Yilmaz Sozer
- Dinesh Kumar
- Behrooz Mirafzal
- Ashish Solanki
- Adel Nasiri

# RSECS Committee Paper Awards-Conferences

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## Third Prize

Linda Shelembe and Paul Barendse

“An amplitude-modulated pseudo-random binary sequence approach to broadband impedance spectroscopy for photovoltaic module system identification”

University of Cape Town

# RSECS Committee Paper Awards-Conferences

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## Second Prize

Pasan Gunawardena, Nie Hou, Dulika Nayanasiri, Yunwei Li

“A Dual-Input Single-Output DC-DC Converter Topology for  
Renewable Energy Applications”

Alberta University

# RSECS Committee Paper Awards-Conferences

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## First Prize

Sanjay Rajendran , Soumik Sen , Liqi Zhang, Zhicheng Guo ,  
Qingyun Huang and Alex Q. Huang

“500kVA Hybrid Solid State Transformer (HSST): Design and  
Implementation of the SST”

UT Austin

## Third Prize

Selmane Dakir, Ioannis Boukas,  
Vincent Lemort, and Bertrand Cornélusse

“Sizing and Operation of an Isolated Microgrid With Building  
Thermal Dynamics and Cold Storage”

Montefiore Institute and University of Liège  
Liège, Belgium

# RSECS Committee Paper Awards- Transactions

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## Second Prize

Neelesh Yadav and Narsa Reddy Tummuru

“A Real-Time Resistance Based Fault Detection Technique For  
Zonal Type Low-Voltage DC Microgrid Applications”

Indian Institute of Technology, Mandi, India

# RSECS Committee Paper Awards- Transactions

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## First Prize

Kevin Frankforter , M. Isabel Tejedor-Tejedor, Marc Anderson, and  
Thomas Jahns

“Investigation of Hybrid Battery/Ultracapacitor Electrode  
Customization for Energy Storage”

UW-Madison

# IAS RES Website

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- Address <http://sites.ieee.org/ias-crsecs/>
- Uses the new IEEE template for Committees
- Sections
  - Welcome – scope and how to become a member and a reviewer
  - Organization – Executive Committee, AEs and Webmaster incl. emails
  - Papers on IAS Transactions – instructions for submission
  - News – currently the special session at ECCE and this IAS RES Committee Meeting
- Suggestions? Email the Chair and cc the Webmaster.



# ECCE 2022 Update

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**October 2021**



IEEE ENERGY CONVERSION CONGRESS & EXPO



**Detroit, Michigan, USA Oct. 9-13**