



**IEEE Power Electronics
Society (PELS)**

Malaysia Chapter

2020 ACTIVITIES REPORT



**IEEE POWER
ELECTRONICS SOCIETY**
Powering a Sustainable Future
MALAYSIA CHAPTER



2020 Chapter Chair Message

The year 2020 presents a big challenge to all of us due to the spread of COVID-19 that is plaguing the world today. This has had a very significant impact on the daily lives of all of us, where nowadays we have to go through life with new norms such as social distancing and spending a lot of time at home. However, our daily lives need to be continued.

Despite these new challenges, the IEEE PELS Malaysia Chapter continues its excellence by implementing various activities that have been planned for the benefit of all its members. Therefore, the report that has been prepared presents the activities that have been implemented throughout the year 2020 for the information of all members.

In closing, thank you for your continued support of the IEEE PELS Malaysia Chapter and please keep tabs on us through our website and Facebook. CONGRATULATIONS to you for joining a talented group of individuals that is "Powering a Sustainable Future."

Respectfully yours,

Rahimi Baharom

Chair,

2020 IEEE MALAYSIA PELS CHAPTER

IEEE MALAYSIA PELS CHAPTER

2020 Executive Committee Portfolios

Chair:

Rahimi Baharom

Universiti Teknologi MARA

Past - Chair:

Norzaihar Yahaya

Universiti Teknologi PETRONAS

Vice - Chair:

Shahrin Md Ayob

Universiti Teknologi Malaysia

Secretary:

Ramani Kannan

Universiti Teknologi PETRONAS

Treasurer:

Shamsul Aizam Zulkifli

Universiti Tun Hussein Onn Malaysia

Executive Committee:

Professional Activities / Industrial Relations

Nadia Tan Mei Lin

Universiti Tenaga Nasional

Membership Development

Tan Chee Wei

Universiti Teknologi Malaysia

Humanitarian Activities

Khairul Safuan Muhammad

Universiti Teknologi MARA

Educational / Students Activities

Tey Kok Soon

University of Malaya

Strategic Communication & Webmaster

Mohd Amran Mohd Radzi

Universiti Putra Malaysia





2020 ACTIVITIES

Administrative Activities

1. The First Executive Committee Meeting

Date : 18 January 2020

Time : 02.30pm

Venue : Pulse Grande Hotel, Putrajaya, Malaysia

2. The Second Executive Committee Meeting

Date : 02 May 2020

Time : 10.00am

Venue : Online-CISCO Webex meeting tool

3. The Third Executive Committee Meeting

Date : 29-30 September 2020

Time : 03.00pm

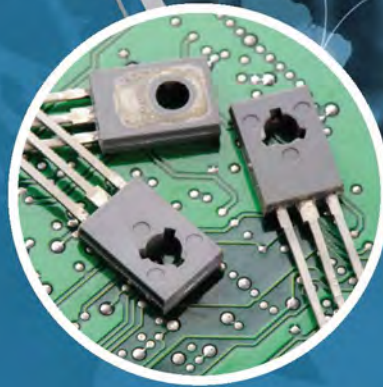
Venue : Hatten Hotel, Malacca, Malaysia

4. The Fourth Executive Committee Meeting

Date : 12 December 2020

Time : 09.00am

Venue : The Wembley Hotel, Georgetown, Penang, Malaysia



Technical Activities

1. TECHNICAL TALK - ROLE OF POWER ELECTRONICS IN INDUSTRIAL DRIVE APPLICATION IN MALAYSIA

Date : 26 February 2020
Time : 02.30pm
Venue : Universiti Teknologi Petronas, Malaysia
Speaker : Mr. Shazrizal Bakar (GE Power Conversion)

2. IEEE WEBINAR ON MATLAB PROGRAM FOR BEGINNER

Date : 25 April 2020
Time : 09.00am
Venue : Online-CISCO Webex
Speaker : Ir. Ts. Dr. Rahimi Baharom (UiTM)

3. IEEE PELS National Lecturer Program 1: Trends on Future of Power System: Converter Applications

Date : 20 June 2020
Time : 09.30am
Venue : Online-via google meet
Speaker : Ts. Dr. Kharul Safuan Muhammad (UiTM)

4. IEEE PELS National Lecturer Program 2: Trends on Future of Power System: Converter Applications

Date : 20 June 2020
Time : 10.30am
Venue : Online-via google meet
Speaker : Mr. Arief Noor Rahman (Research Engineer, Yiqun Green Energy Tech. Taiwan)

5. IEEE PELS Distinguish Lecturer Program: High Power Density AC-DC/ DC-DC/ DC-AC Conversion Techniques

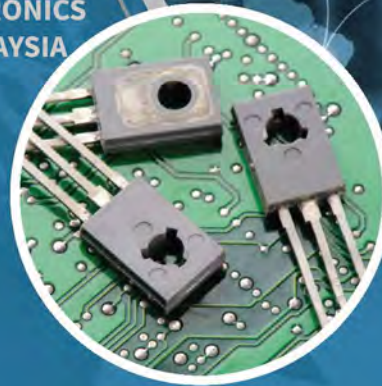
Date : 7 December 2020
Time : 10.00am
Venue : Online-via Microsoft Teams
Speaker : Professor Huang-Jen Chiu (National Taiwan University of Science and Technology)

6. IEEE PELS Industrial Talk: Status of Renewable Energy in Malaysia in 2020

Date : 7 December 2020
Time : 11.00am
Venue : Online-via Microsoft Teams
Speaker : Dato' Ir. Dr. Ali Askar Sher Mohamad (Managing Director, Sher Engineering & Consultancy Sdn Bhd)

7. 2020 IEEE International Conference on Power and Energy (PECon2020)

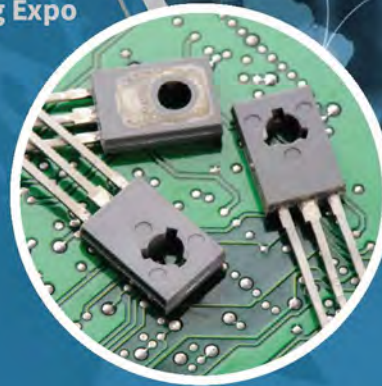
Date : 7-8 December 2020
Venue : Virtual Event



Technical Activities (continue)

8. Technical Talk in Electronics Manufacturing Expo Asia (EMAX 2020) - Virtual Edition

Date : 7 to 9 December 2020
Time : 10.00am
Venue : Virtual Event
Speaker : Professor Huang-Jen (National Taiwan University of Science and Technology and Dato' Ir. Dr. Ali Askar Sher Mohamad (Sher Engineering & Consultancy Sdn Bhd)



9. IEEE PELS Final Year Project Competition

Venue : Universiti Teknologi PETRONAS

10. IEEE PELS Final Year Project Competition

Venue : Universiti Teknologi MARA Shah Alam, Selangor

11. Workshop on MATLAB/Simulink for Beginner

Date : 24 October 2020
Time : 09.00am
Venue : Online-CISCO Webex
Speaker : Ir. Ts. Dr. Rahimi Baharom (UiTM)

12. Webinar on Lightweight Electric Motor

Date : 16 December 2020
Time : 02.30pm
Venue : Online-CISCO Webex
Speaker : Ir. Ts. Dr. Rahimi Baharom (UiTM)

Membership Development Activities

1. IEEE PELS Membership Drives in conjunction with the MATLAB WEBINAR FOR BEGINNER PROGRAM

Date : 25 April 2020
Time : 09.00am
Venue : Online-CISCO Webex
Speaker : Ir. Ts. Dr. Rahimi Baharom (UITM)

2. IEEE PELS Senior Membership Elevation Workshop

Date : 20 June 2020
Time : 02.00pm
Venue : Online-CISCO Webex
Speakers : Assoc. Prof. Dr. Shahrin Md Ayob (UTM) and Assoc. Prof. Ir. Dr. Tan Chee Wei (UTM)

3. IEEE PELS Membership Drives in conjunction with the 2020 IEEE Power and Energy Conference (PECon2020)

Date : 7 December 2020
Time : 10.00am
Venue : Online-via Microsoft Teams
Speaker : Assoc. Prof. Dr. Norzaihar Yahaya (UTP)

4. IEEE PELS Membership Drives in conjunction with the Electronics Manufacturing Expo Asia 2020 (EMAX)

Date : 7 to 9 December 2020
Time : 10.00am
Venue : Virtual Event
Speaker : Assoc. Prof. Dr. Nadia Tan Mei Lin (UNITEN)

5. IEEE PELS Membership Drives in conjunction with the IEEE PELS National Lecturer Program (NLP)

Date : 20 June 2020
Time : 09.00am
Venue : Online-Google Meet
Speaker : Assoc. Prof. Dr. Shamsul Aizam Zulkifli (UTHM)

6. IEEE PELS Membership Drives in conjunction with the Technical Talk

Date : 26 February 2020
Time : 02.30pm
Venue : Universiti Teknologi Petronas
Speaker : Dr. Ramani Kannan (UTP)



Social Activities

1. IEEE PELS DAY 2020

Date : 20 June 2020
Time : 09.00am
Venue : Virtual Event

2. Networking Lunch for the Executive Committee of the IEEE PELS Malaysia

Date : 30 September 2020
Time : 12.00pm
Venue : Hatten Hotel, Malacca

3. Networking dinner for the Executive Committee of the IEEE PELS Malaysia Chapter

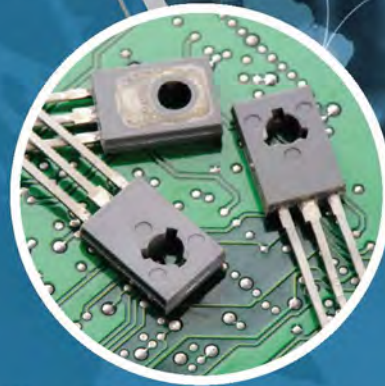
Date : 29 September 2020
Time : 06.30pm
Venue : Hatten Hotel, Malacca

4. Meeting with the Penang Convention and Exhibition Bureau (PCEB)

Date : 11 December 2020
Time : 07.00pm
Venue : Lagenda House & Cafe, Georgetown, Penang, Malaysia

5. Networking lunch for the Executive Committee of the IEEE PELS Malaysia Chapter

Date : 12 December 2020
Time : 01.30pm
Venue : The Wembley Hotel, Georgetown, Penang, Malaysia



Infographic



The First Executive Committee Meeting



The Second Executive Committee Meeting



The Third Executive Committee Meeting



The Fourth Executive Committee Meeting

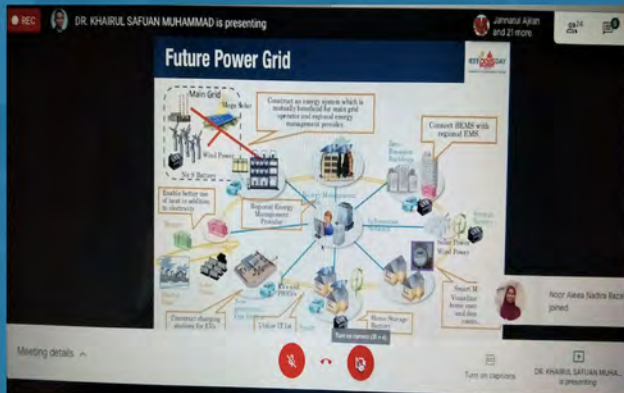
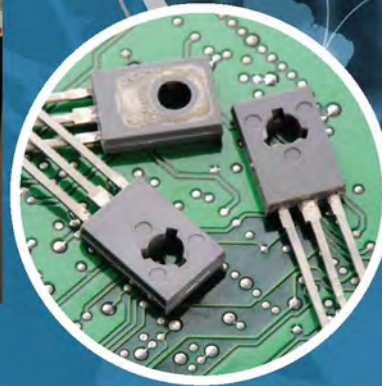


The Fourth Executive Committee Meeting

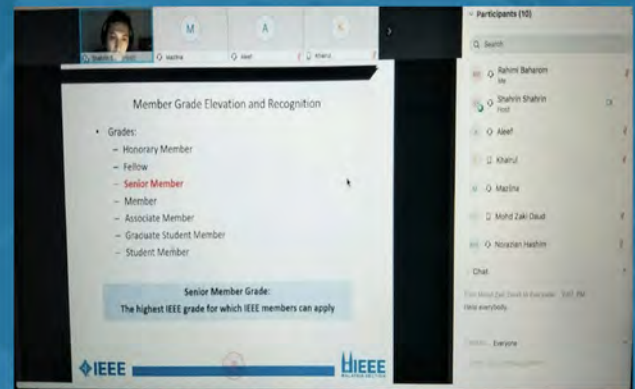
Infographic



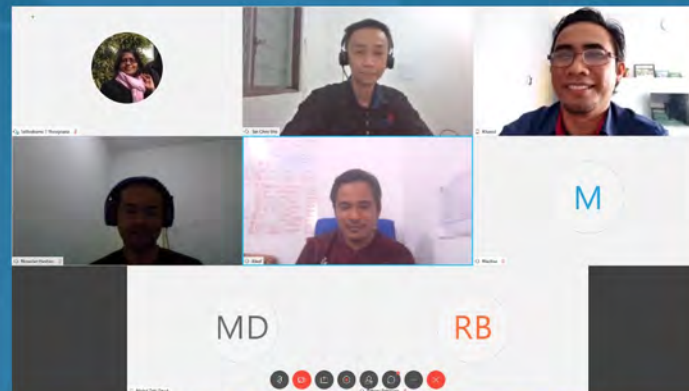
IEEE PELS National Lecturer Program



IEEE PELS National Lecturer Program



IEEE PELS Senior Membership Elevation Workshop

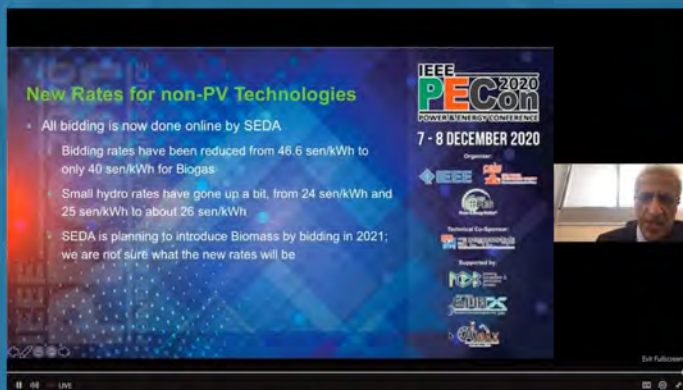


IEEE PELS Senior Membership Elevation Workshop

Infographic



2020 IEEE Power and Energy Conference (PECon2020)



2020 IEEE Power and Energy Conference (PECon2020)



Meeting with Penang Convention & Exhibition Bureau (PCEB)



Webinar on Lightweight of Electric Motor

by Rahimi Baharom

IEEE PELS Malaysia Chapter Successfully Hosts Virtual Events

The IEEE Power Electronics Society (PELS) Malaysia Chapter collaborated with the IEEE PES Malaysia Chapter and IEEE Universiti Teknologi MARA (UiTM) Student Branch Chapter to host the MATLAB Webinar for Beginners on 25 April 2020. Overseen by Dr. Rahimi Baharom (Chapter Chair of IEEE PELS Malaysia), the webinar

was free and exposed undergraduates, postgraduates, and researchers to the MATLAB software. Participants who had access to the MATLAB software designed simple power electronics circuits and applications during the webinar. Over 180 participants attended from various countries, such as Australia, Bangladesh, Canada, India, Iraq, Iran, Malaysia, Nigeria, Pakistan, Somalia, and Sri Lanka.

Another program organized by the IEEE PELS Malaysia Chapter was held

on 20 June 2020 to celebrate the IEEE PELS Day (Figure 1). The two featured programs were held virtually due to the pandemic. In the morning, a National Lecture Program (NLP) was presented by Dr. Kairul Safuan (IEEE PELS Member) and Mr. Arief Noor Rahman (Research Engineer at the National Taiwan University of Science and Technology). Participants were able to explore the trends on the future of power systems, such as converter applications. In the

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FIG 1 The IEEE PELS Malaysia Chapter celebrates IEEE PELS Day.

afternoon, the IEEE Senior Membership Elevation Workshop was held to focus on how IEEE members can

promote themselves as senior members and serve society. Some of the distinguished speakers include Dr. Shahrin Md

Ayob (IEEE PELS Malaysia Vice-Chair) and Dr. Tan Chee Wei (PELS Malaysia Executive-Committee Member).



Join IEEE Power Electronics Society today...

and be connected to the ultimate source of power in your industry!

To those of you who are already members, please renew your membership for 2021.

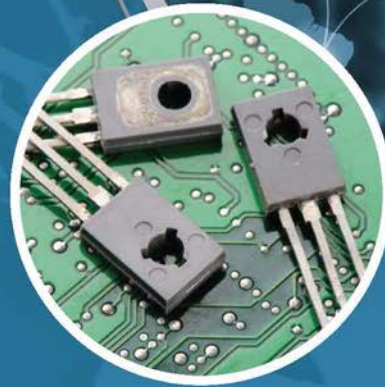
Member Benefits:

- Quarterly print & electronic subscription to IEEE Power Electronics Magazine
- Monthly PELS e-Newsletter with up-to-date announcements
- Networking Events: Mentorship Roundtable, WIE Breakfast and YP Events
- Join 1 of the 7+ Technical Committees
- Membership discounts on Conference, Symposia & Workshops on the PELS Resource Center

\$25 Full Year
For Members

\$13 Full Year
For Students





ANNOUNCEMENT!!

2021 IEEE PELS Malaysia Chapter Annual General Meeting (AGM)

Date : 6 February 2021 (Saturday)

Time : To inform

Venue : To inform

AGM is planned (Physical / Virtual)

All registered members of the IEEE PELS Malaysia Chapter are invited to attend.

Upcoming Event

Call for Paper **CENCON 2021** Conference on Energy Conversion

About Conference

The 2021 IEEE Conference on Energy Conversion (CENCON 2021) will be held at KSL Resort, located in Johor Bahru, on 25th - 26th October 2021. The objective of the conference is to share the latest research in the areas of power electronics, electrical drives, renewable energy, modelling and control systems.

CENCON 2021 is organized and sponsored by the IEEE Malaysia Power Electronics (PEL) Chapter and co-organized by Power Electronics and Drives Research Group (PEDG), Universiti Teknologi Malaysia.

The conference program will feature technical paper presentations and technical exhibition. Papers that are accepted and presented papers at the conference will be submitted to IEEE Xplore and will be included in IEEE Xplore digital library ISBN 978-1-5090-2948-8 (subject to the approval of the IEEE Technical Program Committee) and hence indexed in SCOPUS. We are glad to inform that the previous 2014, 2015, 2017 and 2019 conference proceedings are already included in IEEE Xplore digital library and SCOPUS.

Track

- Topology of power converters
- Control of power converters
- Multilevel inverters
- Electrical machines and drives
- Renewable energy systems
- Electric and hybrid electric vehicles
- Power electronic applications in power system
- Energy storage
- Application of power electronic in high voltage engineering
- Smart grid and its application
- Power quality issues
- Education in power electronic

Important Dates

Paper Submission Deadline

7th July 2021

Notification of Acceptance

7th August 2021

Early Bird Registration Deadline

1st September 2021

Normal Registration Deadline

20th September 2021

Final Camera Ready Deadline

20th September 2021

Committee

General Chair

Nik Rumzi Nik Idris
Rahimi Baharom

Organizing Chair

Shahrin Md Ayob

Technical Chair

Tan Chee Wei

Publication Chair

Mohd Rodhi Sahid
Mohd Amran Mohd Radzi

Finance and Registration

Norjulia Mohamad Nordin
(Finance)
Zaniah Muda (Registration)
Shamsul Aizam

Publicity Chair

Razman Ayop (Website)
Awang Jusoh (Publicity)
Ramani Kannan

Local Arrangement

Zaki Daud (Chair)
Mohd Shafie Nordin
Khomarudin

Sponsorship and Exhibition Chair

Junaldi Abdul Aziz
Naziha Ahmad Azli
Nor Zaiha Yahya

The 5th IEEE Conference on Energy Conversion

25-26 October 2021

Johor Bahru



Organizer



IEEE POWER
ELECTRONICS SOCIETY
Powering a Sustainable Future



POWER ELECTRONICS AND DRIVES RESEARCH GROUP



Prepared by:

RAHIMI BAHAROM

Chair

IEEE PELS Malaysia Chapter



<https://site.ieee.org/malaysia-pels/>



<https://www.facebook.com/IEEEPELS.my/>



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