

# MyHVnet

## Newsletter

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### MyHVnet

is the abbreviated name for Malaysian High Voltage Network – a networking group for high voltage engineering in Malaysia.

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## Technical Visit to 500/275kV Substation

YONG PENG, 06 November 2023 – The visit to Tenaga Nasional Berhad's (TNB) Yong main incoming substation (PMU) 500/275kV took place on 06 November 2023. The facility, located at Yong Peng East (YGPE), serves as an excellent learning ground for understanding the practical application of electrical insulation in high voltage systems. There

were 24 participants from the Institute of Electrical and Electronics Engineers (IEEE), Dielectrics and Electrical Insulation Society (DEIS) and Malaysian High Voltage Network (MyHVnet) who joined the visit.

The primary objective of the visit was to provide the participants with a practical, real-

(continued on page 2...)



Photo during presentation.

## Technical Talk on Transformer Technology

KOTA SAMARAHAN, 07 June 2023 – The IEEE Dielectrics and Electrical Insulation Society (DEIS) Malaysia Chapter technically supported a technical talk on "Recent Trends in Transformer Technology: Application, Research and Opportunity" organised by the

Universiti Malaysia Sarawak (UniMAS). The speaker was Ir. Ts. Dr. Mohd Aizam Talib, the Head of Advanced Diagnosis Services at TNB Labs Sdn. Bhd.

(continued on page 6...)



Group photo.

## MyHVnet 2023-2024 Chairman's Remarks



Ir. Ts. Dr. Mohd Aizam Talib,  
TNB Labs Sdn. Bhd.

should be continued and receive full co-operation from all parties.

It has been more than one year since I had the honour to lead Malaysia High Voltage Network (MyHVnet). Despite everyone is busy with their own activities, we have successfully organised a few activities for MyHVnet members in 2023. The important interest from universities and industry practitioners in the field of high voltage engineering research and applications

The synergic collaboration between academia and industries through MyHVnet has seen a remarkable progress including active participation of industry practitioners in joint research studies, providing insightful views through participation as industry advisory panel (IAP) at university academic programmes and becoming a mentor for academia who wish to gain industry exposure. I believe there is still much more to be done to ensure that the cooperation can bring benefits to both parties. In the coming years, a few programmes and events have been planned and will be executed such as the colloquium session, technical talks and technical visits to factories. I hope all MyHVnet members can actively participate in the upcoming events.

## IEEE DEIS Malaysia Chapter Won Outstanding Small Chapter Award

KUALA LUMPUR, 24 June 2023 – The Institute of Electrical and Electronics Engineers (IEEE) Malaysia Section organised an Inspiration Night 2023, graced by the presence of the guest of honor, Yang Bahagia Datuk Arthur Joseph Kurup, Deputy Minister of Science, Technology, and Innovation (MOSTI). The dinner was a prestigious event that brought together professionals and experts in various engineering and technology fields.

During the event, outstanding individuals and organisations were recognized and honored for their significant contributions to the industry. The highlight of the evening was the presentation of awards to deserving recipients who had made remarkable achievements in their respective areas of expertise, making it a memorable and inspiring celebration of excellence in the IEEE community. The IEEE Dielectrics and Electrical Insulation Society (DEIS) Malaysia Chapter had achieved a significant milestone by being awarded the prestigious 2022 IEEE Malaysia Outstanding Small Chapter Award



Committee members of IEEE DEIS Malaysia Chapter at the event.

with great pride. Congratulations to the DEIS Malaysia Chapter for their unwavering dedication, leading to them receiving the award.

# Ir. Ts. Dr. Wooi Chin Leong, Universiti Malaysia Perlis.

### MyHVnet Newsletter's Editorial Board

**Advisers:** Prof. Dr. Zulkurnain Abdul Malek (Universiti Teknologi Malaysia); Ir. Ts. Dr. Mohd Aizam Talib (TNB Labs Sdn. Bhd.)

**Editor-in-Chief:** Assoc. Prof. Eur. Ing. Ir. Ts. Dr. Lau Kwan Yiew (Universiti Teknologi Malaysia)

**Editor:** Ir. Ts. Dr. Wooi Chin Leong (Universiti Malaysia Perlis)

**Contributors:** Members of MyHVnet

## Learning from High Voltage Substation

(...continued from page 1)

world understanding of high voltage power management, electrical insulation, and the application of dielectric materials in the power transmission and distribution sector. The visit aimed to (i) gain insights into the operation and management of a high voltage substation (ii) understand the role and application of dielectric materials and electrical insulation in high voltage systems, and (iii) explore safety protocols and industry best practices in managing high voltage facilities.



Photo during visit.

The visit included a comprehensive guided tour of the TNB PMU facility, providing the participants with an in-depth understanding of its operations, equipment, and safety measures. Industry experts and TNB's representatives delivered their technical presentations on topics related to high voltage power management, dielectric materials, insulation systems, and their significance in ensuring the reliability and safety of power transmission. An interactive session then allowed the participants to engage in discussions, ask ques-



Appreciation token presented to TNB's representative (left).

tions, and gain further insights from the experts.

The visit was crucial in understanding the critical role of electrical insulation and dielectric materials in maintaining the integrity and safety of high voltage power systems. Insights into the operation, maintenance, and safety protocols in managing a 500/275kV substation were gathered during the visit. Real-world applications and challenges in the field of electrical insulation and power management were also highlighted during the visit.

The visit to the substation provided valuable practical insights into the application of dielectric materials and electrical insulation in high voltage power systems. The knowledge gained during this visit will contribute significantly to the understanding and research efforts within the field of dielectrics and electrical insulation.

# Dr. Thien Yee Von, Tunku Abdul Rahman University of Management and Technology.

## Technical Visit to UiTM High Voltage Laboratory

SHAH ALAM, 01 June 2023 – The Head of Universiti Malaya High Voltage Laboratory (UMHVL), Associate Professor Ir. Dr. Hazlee Azil Illias, who is also the Chair of the Institute of Electrical and Electronics Engineers (IEEE) Dielectrics and Electrical Insulation Society (DEIS) Malaysia Chapter and the Counselor of the IEEE Universiti Malaya Student Branch, visited the High Voltage Laboratory at Universiti Teknologi Mara (UiTM), Shah Alam, on 01 June 2023. The main objective of the visit was to gain a better insight into the lab at UiTM so that further improvement can be done on the high voltage facilities.

# Assoc. Prof. Ir. Dr. Hazlee Azil Illias, Universiti Malaya.



Photo at high voltage laboratory.

# About IEEE DEIS Malaysia Chapter

MALAYSIA, 01 January 2023 – The IEEE Dielectrics and Electrical Insulation Society (DEIS) Malaysia Chapter was established in Malaysia in May 2015 with the aims to enhance networking and stimulate research and development in the field of dielectrics and electrical insulation in Malaysia. Its field of interest is in line with that of DEIS, i.e., the study and application of dielectric phenomena and behavior and the development, characterization and application of all gaseous, liquid and solid electrical insulating materials and systems utilized in electrical and electronic equipment. Through committees, IEEE DEIS Malaysia Chapter hopes to promote the close cooperation and exchange of technical information among its members.

Those joining DEIS will have the possibility of networking with a large number of experts worldwide, including Malaysia (through IEEE DEIS Malaysia Chapter), to show the results of their research activity or remain informed in the latest developments in their field. For more information, please visit:

<http://deis.ieeemy.org/> (IEEE DEIS Malaysia Chapter)

<http://www.ieeedeis.org/> (IEEE DEIS)

# News on MyHVnet

In case you missed the previous news on Malaysian High Voltage Network (MyHVnet), Issues 1 to 5 of MyHVnet Newsletter (an initiative for the dissemination of high voltage related news, with particular emphasis on MyHVnet's activities) can be downloaded from the following link:

<http://ivat.utm.my/myhvnnet/news/>





## IEEE DEIS Malaysia Chapter

**About IEEE DEIS Malaysia Chapter**

- ▶ The Institute of Electrical and Electronics Engineers (IEEE) Dielectrics and Electrical Insulation Society (DEIS) Malaysia Chapter was established in Malaysia in 2015.
- ▶ IEEE DEIS Malaysia Chapter's establishment stems from the need of the dielectrics community in Malaysia to enhance networking and stimulate research and development in the field of dielectrics and electrical insulation.

**About DEIS**

- ▶ DEIS is interested in the study and application of dielectrics from the molecular level, through nano-structured materials, to insulation systems in industrial, commercial, and power system equipment, to emerging applications such as those at high power levels and in biological and other small-scale systems.
- ▶ DEIS supports the entire scope of the field from advancing the basic science, to enhancing the ability of practicing engineers to use emerging dielectric materials, to the development of standards for the prudent application of existing and new insulation systems.



All kind of dielectrics are dealt within DEIS scope: solid, liquid and gaseous dielectrics

Picture courtesy of DEIS

▶ The field of interest of DEIS shall be the study and application of dielectric phenomena and behavior and the development, characterization and application of all gaseous, liquid and solid electrical insulating materials and systems utilized in electrical and electronic equipment.

▶ DEIS is also involved in the creation of voluntary engineering standards and the recommended practices related thereto.

▶ DEIS promotes the close cooperation and exchange of technical information among its members and to this end holds meetings for the presentation of papers and their discussion.

▶ Through committees DEIS stimulates research, develops appropriate studies and standards, and sponsors periodic and special publications in the field of dielectrics and electrical insulation.

**DEIS Membership**

- ▶ Joining IEEE DEIS will offer you the possibility of networking with a large number of experts to show the results of your research activity or remain informed in the latest developments in your field.
- ▶ For more information, please visit:
  - <http://deis.ieeemy.org/> (IEEE DEIS Malaysia Chapter)
  - <http://www.ieeedeis.org/> (IEEE DEIS)

# UTM Institute of High Voltage and High Current Visits National Metrology Institute of Malaysia

SEPANG, 12 September 2023 – Staff members of the Institute of High Voltage and High Current (IVAT), Universiti Teknologi Malaysia, visited the National Metrology Institute of Malaysia (NMIM) on 11 September 2023. During the visit, staff members of the institute had the opportunity to gain more knowledge from the high voltage services and facilities offered by NMIM. Both parties also shared their knowledge, especially in high voltage calibration services, during the visit. The use of high voltage calibration equipment and high voltage calibration techniques was also discussed. Both parties look forward to having collab-



Group photo.



Discussion during visit.

orations with each other in offering services related to high voltage engineering in the future.

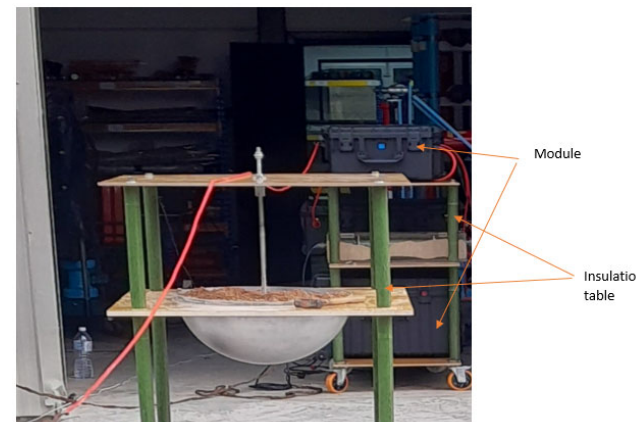
# Assoc. Prof. Eur. Ing. Ir. Ts. Dr. Lau Kwan Yiew, Universiti Teknologi Malaysia.

# New Impulse Current Generator at Faculty of Engineering, Multimedia University

CYBERJAYA, 23 March 2023 – After 7 years of the installation and commissioning of a 300 kV, 10 kA, 30 kJ impulse voltage/current generator, the high voltage team at the Faculty of Engineering, Multimedia University, has successfully run numerous tests on grounding systems at various sites. Today, the team has just completed the commissioning of a much smaller scale impulse voltage, generating up to 100 kV, 1.5 kA systems to carry out laboratory and field tests on electrical equipment and grounding systems of smaller system levels, and for faci-



Field test arrangement.



Modules placed on insulation table.

ties that are not easily accessible by the heavy transportation. The new small impulse current generator is facilitated with 5 main modules, or baggage, consisting of a manual controller, charging transformer, spark gap and capacitor bank, where during the test, they are all placed on the insulation table. The operation and handling of the new impulse generator is also easy, as the connection shall be made directly from the baggage, which has the plug to the other terminals. The team would like to take this opportunity to invite the industrial players and academicians to collaborate with them.

# Prof. Ir. Dr. Normiza Mohamad Nor, Multimedia University.

# Knowledge Sharing by Transformer Expert

... (continued from page 1)

The technical talk on recent trends in transformer technology proved to be a valuable and informative event. It successfully disseminated knowledge, facilitated networking, and encouraged participants to embrace innovation in this critical area of electrical engineering.

# Dr. Thien Yee Von, Tunku Abdul Rahman University of Management and Technology.



Dr. Aizam delivering his talk.

# Webinar: Advancement in Electrical Insulation for High Voltage Equipment

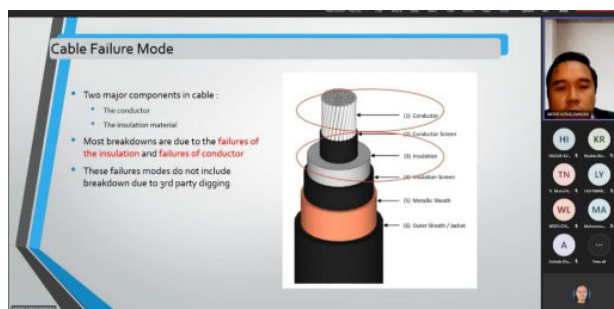
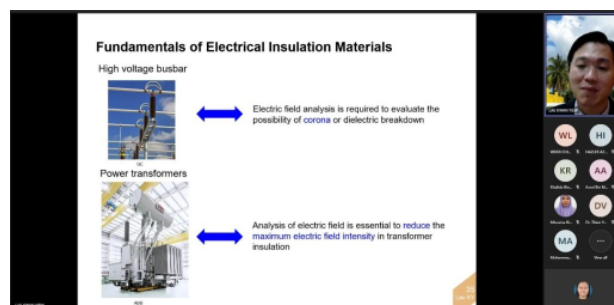
On September 13, 2023, the Institute of Electrical and Electronics Engineers (IEEE) Dielectrics and Electrical Insulation Society (DEIS) organised a webinar entitled “Advancements in Electrical Insulation for High Voltage Equipment”. The event featured three distinguished speakers, namely, Associate Professor Eur. Ing. Ir. Ts. Dr. Lau Kwan Yiew from Universiti Teknologi Malaysia, Ir. Ts. Mohd. Azraei bin Pangah @ Pa’at from TNB Research Sdn. Bhd. and Mr. Muhammad Rasyidi bin Zainal Abidin from Tenaga Nasional Berhad (Distribution Network). Their presentation topics were “Fundamentals and Advances in Electrical Insulation Materials”, “Condition Health Assessment for Medium Voltage Power Cables” and “Insulation Diagnosis for Oil-immersed Transformers (Present and Future)”, respectively.

The webinar attracted approximately 63 participants, primarily composed of engineering students, lecturers, and professionals from various related industries. The webinar also served as a platform for DEIS to promote the society and its activities, in order to encourage more membership from the public and those interested in the areas of dielectrics and electrical insulation for high voltage applications.

# Ir. Ts. Dr. Wooi Chin Leong, Universiti Malaysia Perlis.



Various screenshots during the webinar.



Property	Transformer Category	Limits			
		Good	Medium	Poor	Very Poor
Colour & Appearance	All	Clear & no visible contamination	Medium	Dark	Dark brown / black
	Breakdown Voltage (kV)	> 170kV	> 80	50 - 80	< 50
Water Content @ 20°C (ppm)	22.5 kV - 170kV	< 5	5 - 10	> 10	> 25
	Acidity (mg/kg)	< 0.10	0.10 - 0.20	> 0.20	> 0.20
Paper Factor	22.5 kV - 170kV	< 0.10	0.10 - 0.20	> 0.20	> 0.20
	Interfacial Tension (mN/m) Sediment & Sludge	All	> 20	20 - 25	< 20

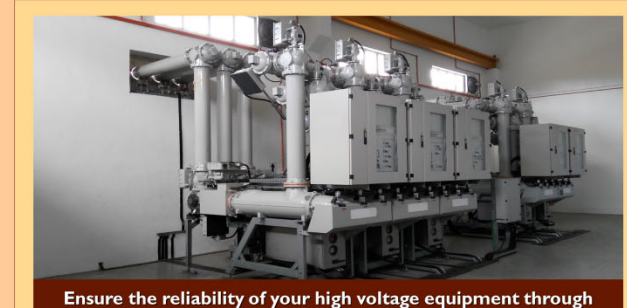


## High Voltage Calibration, Testing, Consultancy, Training, Research and Development at Institute of High Voltage and High Current, Universiti Teknologi Malaysia

### Introduction

- > The Institute of High Voltage and High Current, or in Malay, Institut Voltan dan Arus Tinggi (IVAT), was established in Universiti Teknologi Malaysia in 1991
- > IVAT's establishment stems from the need of the country for a centre which carries out research and development, testing and calibration work, and training in the field of high voltage engineering
- > IVAT is a laboratory accredited under the Laboratory Accreditation Scheme of Malaysia and meets the requirements of MS ISO/IEC 17025:2017 (general requirements for the competence of testing and calibration laboratories)

### Accredited Calibration and Testing Services



Ensure the reliability of your high voltage equipment through

### Accredited Calibration & Testing Services



#### Accredited scope of calibration:

- AC – up to 180 kV rms
- DC – up to 180 kV
- Impulse – 50 kV to 140 kV
- High current – up to 1000 A



#### Accredited scope of testing:

- Power cable AC voltage withstand test from 2 kV to 180 kV at 50 Hz

### Consultancy and Training Services

IVAT offers consultancy services for the following areas:

- > Laboratory accreditation based on MS ISO/IEC 17025: 2005
- > Lightning protection systems for buildings
- > Protection systems for electrical power networks
- > Grounding systems installations
- > High voltage product development
- > Low voltage and telecommunication surge protective devices

IVAT also organises training, visits, workshops, seminars and short courses for students, engineers, technical managers, technical supervisors, technicians, personnel, and researchers involved in electrical power industry. Some popular modules include:

- > Electrical Safety Seminar
- > Fundamentals of High Voltage Technology
- > Three-day Short Course on High Voltage Testing Techniques and Safety
- > Two-day Short Course on Grounding Systems
- > Short Course on Lightning Protection for High and Low Voltage Systems
- > Short Course on Partial Discharge Phenomena

### Research and Development

IVAT has 2 main research themes covering comprehensive research on high voltage engineering:

#### Lightning Research and Safety:

- > Lightning monitoring, detection, and protection system
- > Lightning characterization, electromagnetic field, and radio frequency emission
- > Overvoltage protection system and insulation co-ordination, measurement techniques, surge arresters, and magnetic engineering
- > Grounding system improvement and measurement method
- > Super capacitor application in high voltage systems
- > Electromagnetic compatibility and interference in high voltage systems



### Dielectrics, Discharges and Diagnostics:

- > Electrical discharge, detection, and monitoring
- > Partial discharge analysis on polymeric insulating materials
- > Condition monitoring of high voltage equipment
- > Diagnosis and fault analysis
- > Forensic investigation
- > Material assessment
- > Plasma and ozone generation applications
- > Low voltage and telecommunication surge protective devices

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## PhD Opportunities: University of Malaya High Voltage Research Group



# UNIVERSITI MALAYA

Greetings,

We are pleased to invite applications for PhD study at University of Malaya High Voltage Research Group (UMHVRG). The scopes of the projects include but are not limited to:

- Partial discharge measurement and simulation
- Dielectric material characterisations
- Artificial intelligence techniques in condition monitoring
- Optimisation techniques in high voltage equipment parameters' estimation
- Other high voltage engineering studies

**STUDY MODE:** Full-time research (Minimum 2 years, maximum 4 years)

### REQUIREMENT:

- Academic qualification:
  - ♦ [Bachelor's Degree in Electrical Engineering with CGPA  $\geq$  3.7 or equivalent] OR;
  - ♦ [Bachelor's Degree in Electrical Engineering with CGPA  $\geq$  3.0 or equivalent] AND [Master by research in Engineering OR Master by Coursework in Engineering with CGPA  $\geq$  3.00]
- Self-funded or sponsored
- Proficient in English language (written and spoken)
- Pleasant personality, hardworking and self-motivated
- Ability to carry out research work independently, quickly and efficiently
- Willing to write review and research papers

Advantages of pursuing PhD in UMHVRG:

- Widely experienced supervisors
- Great high voltage laboratory facilities
- Excellent working environment
- Friendly and helpful colleagues
- Top-class facilities in University of Malaya
- Become a Graduate Research Assistant with a salary up to RM 3,200 per month

Interested candidate please send your resume with academic transcripts and research proposal to Associate Professor Ir. Dr. Hazlee Illias at [h.illias@um.edu.my](mailto:h.illias@um.edu.my) anytime throughout the year.

For more information about University of Malaya High Voltage Laboratory, please visit <http://umhvl.um.edu.my>

For more information about the application of PhD study at the University of Malaya, please visit <https://www.um.edu.my/doctorate>

Thank you.

## High Voltage Community Networking

BATU PAHAT, 06 November 2023 - A Hi-Tea networking session took place on 06 November 2023 at Kanzu Academy, Universiti Tun Hussein Onn Malaysia (UTHM), providing a comfortable and inviting atmosphere conducive to networking and interactions for the high voltage community. The event was held to encourage networking and casual discussions among attendees, fostering a sense of camaraderie and collaboration within the high voltage community.



Interaction during hi-tea session.

The event commenced with a warm welcome and brief introduction, emphasising the purpose of the gathering and encouraging engagement among members. Structured networking sessions were organised to facilitate interactions among members. These sessions encouraged members to share experiences, insights, and thoughts on the field of dielectrics and electrical insulation. Open discussions during the event allowed members to converse on various topics related to their interests and experiences within the dielectrics and electrical insulation domain. A questions-and-answers session was also held to address any queries

or concerns from the attendees, followed by a request for feedback on the event and suggestions for future gatherings.

The Hi-Tea event was well-received by the attendees. The diverse representation of professionals, academics, and industry experts contributed to the richness of discussions and networking opportunities.

# Dr. Thien Yee Von, Tunku Abdul Rahman University of Management and Technology.

## UTM Institute of High Voltage and High Current Visits TNB Research

KAJANG, 12 September 2023 – Staff members of the Institute of High Voltage and High Current (IVAT), Universiti Teknologi Malaysia, visited the TNB Research (TNBR) Sdn. Bhd. on 11 September 2023. The visit was an effort made by the staff members of the institute to explore the high voltage services and facilities available at TNBR. During the visit, staff members of the institute had opportunity to discuss with TNBR on high voltage related matters, including calibration, testing and research activities. Both parties also shared their views on high voltage engineering in Malaysia. A tour to TNBR's high voltage laboratory was



Group photo.



Photo during discussion.

also conducted towards the end of the visit, where both parties had the chance to share their technical experience during the tour. Both parties look forward to having collaborate with each other in offering high voltage research and services in the future.

# Assoc. Prof. Eur. Ing. Ir. Ts. Dr. Lau Kwan Yiew, Universiti Teknologi Malaysia.

## Asia-Pacific International Conference on Lightning Successfully Held

LANGKAWI, 16 June 2023 - The prestigious Asia Pacific International Conference on Lightning (APL) 2023 took place successfully in Langkawi, Kedah, Malaysia. The 4-day lightning-based conference was organised by the Institute of Electrical and Electronics Engineers (IEEE) Power and Energy Malaysia Chapter and supported by the IEEE Dielectrics and Electrical Insulation Society Malaysia Chapter at Om-bak Villa on 12-15 June 2023. With the nickname "Crown of Lightning in the World", the organisation of APL 2023 is seen to coincide with its time and location based on the significant impact caused by lightning in terms of safety and protection to the public, property, and livestock.

APL 2023 has strong support from the Malaysian Energy Commission (ST), which is also the Platinum Sponsor of the conference. The organisation of APL 2023 received a very proud response, where a total of 113 articles were received, involving the participation of 170 people from 18 countries dominated by China, Malaysia, and Japan. A total of 60% of the articles were contributed by academics, 35% by industry, and 5% by government agencies/non-governmental organisations in 14 tracks/subjects.

# Assoc. Prof. Ir. Dr. Norhafiz Azis, Universiti Putra Malaysia.



Organising committee with Dato Ir. Ts. Abdul Razib Dawood (Chief Executive Officer of Energy Commission, Malaysia), Emerita Prof. Mary Ann Cooper, (Managing Director of Illinois University @ Chicago) and Prof. Bo Zhang (Tsinghua University).

## 2024 Annual General Meeting of the IEEE DEIS Malaysia Chapter

KUALA LUMPUR, 03 February 2024 – The 2024 Annual General Meeting (AGM) of the Institute of Electrical and Electronics Engineers (IEEE) Dielectrics and Electrical Insulation Society (DEIS) Malaysia Chapter was successfully held on 3 February 2024, at Kuala Lumpur Convention Center and Google Meet concurrently. The meeting was attended by active members of the IEEE DEIS Malaysia Chapter and chaired by Chapter Chair Assoc. Prof. Ir. Dr. Hazlee Azil Illias.

The meeting began with an opening remark by Assoc. Prof. Ir. Dr. Hazlee, followed by the endorsement of the 2023 AGM minutes and the presentation of the chapter's activities. Next the treasurer Dr. Nik Hakimi Nik Ali presented account matters. Lastly, a brief planning for the activities in 2024 was discussed.

# Ir. Ts. Dr. Wooi Chin Leong, Universiti Malaysia Perlis.



Group photo.

## Pursue Your Postgraduate Studies at UTM IVAT

The Institute of High Voltage and High Current (IVAT), Universiti Teknologi Malaysia (UTM), welcomes applications for Doctor of Philosophy (PhD) and Master of Philosophy (MPhil) studies to undertake research projects at IVAT. The themes of the projects include:

- Lightning characterisation, monitoring and detection
- Electromagnetic compatibility and interference
- Partial discharge detection and measurements
- Plasma and ozone generation applications
- Supercapacitors in high voltage applications
- Dielectrics and electrical insulating materials

### Admission Requirements:

- PhD:

Entry to the programme requires a Master degree in Electrical Engineering or equivalent from UTM or other Institution of Higher Learning recognised by UTM. First-class Bachelor graduates (CGPA  $\geq$  3.67/4.00) may apply for a fast-track PhD (terms & conditions apply)

- MPhil:

Entry to the programme requires a Bachelor degree in Electrical Engineering or equivalent from a tertiary institution recognised by UTM, with a minimum CGPA of 3.00/4.00 for fresh graduates, or a minimum of 2.50/4.00 with four (4) years experience as an Electrical Engineering practitioner

- English Requirement for International Students:

All international students must have a valid two-year old IELTS certificate an IELTS Band 6.0

### Why Study at IVAT?

- Our field of electrical and electronic engineering is ranked Top 100 in the world (according to QS World University Rankings by Subject 2023)
- Our high voltage laboratory is the largest in Malaysia
- We have well-equipped high voltage facilities
- We have widely experienced supervisors working on a variety of high voltage related research and development
- We have dedicated student working areas for office and laboratory work

### To Apply:

- Please send your resume with academic qualifications, transcripts and research proposal to [ivat@utm.my](mailto:ivat@utm.my) anytime throughout the year. You may also directly contact the respective project supervisors at IVAT.

For more information about IVAT, please visit: <http://ivat.utm.my/>

For more information about UTM's postgraduate programmes, please visit: <http://admission.utm.my/>



# About MyHVnet

High voltage research and development activities continue to prosper in Malaysia due to rapid urbanisation across the country. Each year, an enormous amount of expenditure is allocated for the development of high voltage infrastructure and its relevant expertise to ensure its sustainability. This indirectly leads to an increasing number of players, both at the university and industry levels. While this certainly brings positive impact to the field of high voltage engineering, it can, sometimes, be difficult for interested parties to approach the right experts in a specific high voltage related area, e.g., lightning protection, condition monitoring and diagnosis, and insulation design. Consequently, more effective research and development activities related to high voltage engineering may have been hindered.

To address the above issue, the possibility of setting up an informal networking group relevant to high voltage engineering has been looked into. This leads to the idea of the estab-

lishment of Malaysian High Voltage Network (MyHVnet) in 2014. MyHVnet will hopefully serve as a “one-stop” platform for members from various organisations (universities and industries) across Malaysia for the effective communication of high voltage related research and development.

The main objectives of the establishment of MyHVnet are:

- i) To serve as a platform for the discussion of high voltage related research and development among member organisations.
- ii) To raise the awareness of the research and development capabilities of member organisations to high voltage related industries.
- iii) To lobby for high voltage related research funding.



Group photo at 2023 MyHVnet's Annual General Meeting.

## Published by:

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MyHVnet Newsletter is an annual newsletter published by the Institute of High Voltage and High Current (IVAT), Universiti Teknologi Malaysia (UTM) and Malaysian High Voltage Network (MyHVnet), with ISSN no. 2462-1994. The newsletter is an initiative by IVAT and MyHVnet for the dissemination of high voltage related news, with particular emphasis on MyHVnet's activities. The newsletter aims to comprehend the objectives of MyHVnet, i.e., to serve as a platform for the discussion of high voltage related research and development among member organisations; to raise the awareness of the research and development capabilities of member organisations to high voltage related industries; and to lobby for high voltage related research funding.