

MALAYSIA BRANCH QUARTERLY NEWSLETTER

June 2020
Malaysia Branch

**Institution of
MECHANICAL
ENGINEERS**

Dear Fellow Members,

This is the second issue of the IMechE Malaysia Branch Newsletter for 2020.

During the COVID-19 Movement Control Order period, we have learned how to adopt to new norm of life. Many of us are working from home, keeping social distancing and not to have physical contact with others. Hence, our branch has utilized virtual meeting platform to conduct first ever YMS virtual AGM, and SEAR Webniar.

During this difficult time, our branch as engineering profession, has also contributed in various forms to Malaysia Medical Teams, our front liners in combating COVID-19.

A new date for our postponed AGM has been planned in July 2020. Please look out for our announcement.

Ir. C.C. Chow

News

MALAYSIA BRANCH DONATED KN95 MASKS TO HOSPITAL KUALA LUMPUR

IMechE Malaysia Branch and members made a contribution to Malaysia front liners in fighting COVID-19, by donating 1000 pieces of KN95 masks to Hospital Kuala Lumpur (HKL). IMechE Malaysia Branch chairman, Ir. Eddie Lim delivered the masks to HKL on 6th May 2020.



Ir. Eddie Lim hands over N95 masks to Hospital Kuala Lumpur

Ir. Dr. Lau Ee Von	RM200
Leom Meng Zhe	RM200
Prof. Ir. Dr. Ong Kok Seng	RM200
Tay Tee Tiong	RM200
Stephen Windsor	RM100
Yap Chen Leong	RM100
Zen Teng	RM100
Agus Irawan Bin Hasanudin	RM50
Rafidah Binti Hasan	RM50
Thian Qi Zhe	RM50
TOTAL	RM6000

IMechE Malaysia would like to thank all the contributors for their donations.

Below is the list of the contributors:

IMechE Malaysia Branch	RM1350
Samuel Choy	RM1000
Ang Jen Ken	RM500
Barry Gardner	RM500
Ir. Dr. Balamurugan Annamalai	RM200
Chan Chee Kiat	RM200
Choong Pooi Ying	RM200
Ir. Chow Chee Choy	RM200
Ir. Chua Yaw Long	RM200
Ir. Eddie Lim Hok Lian	RM200
Ir. Gerald Victor	RM200



Certificate of appreciation from Hospital Kuala Lumpur

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MOHD NUREZMAN AND HIS TEAM FROM HERIOT-WATT UNIVERSITY MALAYSIA CONTRIBUTING TOWARDS THE FIGHT AGAINST COVID-19

COVID 19 pandemic that struck the world by storm and affected the daily norms of human civilizations since the first quarter of 2020 had given rise to numerous kind souls with generous efforts to combat the situation. It hadn't stopped the engineering profession from contributing to the society at large. Every single bit of contribution to the medical team, who are the very front liners safeguarding the health of billions of people, are worthy of appraisal.

Mohd Nurezman, a Mechanical Engineering undergraduate student from **Heriot-Watt University Malaysia (HWUM)** was striving to support the front liners in hospitals in Malaysia during the Movement Control Order (MCO) period. The project was inspired by the initial discussions with the 3D printer community and MakerZ (a maker club in HWUM), to help aid the front liners during the COVID-19 pandemic.

After collecting various feedback and inputs from medical practitioners, the team discovered two major challenges that were on the current usage of face mask by front liners when performing their duty. The front liners are affected by ear irritation from wearing the mask for too long, and females medical team members who wear hijab are unable to wear the mask quickly due to the hijab.



Face mask buckle by Nurezman and his team

Knowing the available design of mask buckle that could ease this unpleasant experience, and demand from medical teams, Nurezman engineered his way in supporting the front lines. The design of the face mask buckle is as shown. The design has multiple hooks per side, giving access for a quick hook for the ear-loop face masks making it an essential accessory for everyday mask wearers. With support from his parent and utilising 3D printing technology, he mass-produced and distributed around 2400 mask buckles to hospitals such as Hospital Kuala Lumpur, Hospital Putrajaya and Hospital Penang in Malaysia.

Kudos to Nurezman and his team!

IMECHE MALAYSIA BRANCH AND IMECHE ASIA PACIFIC UNIVERSITY STUDENT CHAPTER DESIGN AND PRINT 3D FACE SHIELDS FOR FRONT LINE WORKERS

The current COVID-19 pandemic has raised virus transfer threats and the shortage of PPE kits for frontline workers in Malaysia.

Asia Pacific University of Technology & Innovation (APU)'s IMechE Student Chapter in partnership with IMechE Malaysia Branch ventured into 3D printing of PPE face shields to help protect vulnerable frontline workers for healthcare and essential services.

Face shields perfectly replace regular masks as a more comfortable and more effective deterrent to COVID-19. Face shields, which can be affordably produced via 3D printing, assembled in quick manner and distributed, should be included as part of strategies to safely and significantly reduce transmission in a community setting.

Within APU, a joint venture was formed between the IMechE Student Chapter and APU's Centre for Robotic

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Engineering (APCORE). Under the guidance of APCORE academic head, Mr Suresh Gobee (CEng-IMEchE), students Calvin Lim, Teoh Kean Hao and Kenneth Lee.



3D printed face shields by APU

The 3D printing process generated complex three-dimensional objects from computer-aided designs completed by the students who are all studying BEng (Hons) in Mechatronic Engineering. Rapid prototyping was

put in place to ensure smooth printing of the 3D printed face shield which is connected to a headband. The face shield or visor is made from a special polymer that repels viruses and bacteria. Unlike a face mask that is only covering the nose and mouth, a visor provides a 180-degree protection of the face, and also prevents the person from touching the face. The face shields are sustainable, can be washed, disinfected and reused multiple times. The students also got guidance from 3-D Printing Malaysia Community.

"In times of crisis, institutions like APU and IMechE have defined a social responsibility to mobilise students, resources and their engineering capabilities in the service of those who need it most," said Deputy Vice Chancellor and Chief Innovation Officer, Professor Ir. Ts. Dr. Vinesh Thiruchelvam, who is also the IMechE SEAR Chair and was instrumental in driving the initiative.

Prof Vinesh's vibrant connections with the local industry allowed for APU face shields to be delivered safely and used productively by port essential workers in Port Kelang and healthcare staff at Hospital Putrajaya.

Kudos to Prof. Ir. Ts. Dr. Vinesh and his team!

IR. CHUA ELECTED AS IMECHE INTERNATIONAL YOUNG MEMBER COMMITTEE VICE CHAIR

Our Committee Member, Ir. Chua Yaw Long has been elected to the position of Vice-Chair, International Young Member Committee (IYMC). His term of appointment is from May 2020 to May 2023. Ir. Chua graduated with a B.Eng. Aerospace from Universiti Putra Malaysia and MSc in Control Systems from University of Sheffield, UK. He has served as lecturer in the Mechanical Engineering departments of various universities in Malaysia. Chua is an Academic Liaison Officer for IMechE UNITEN Student Chapter for three years. Actively

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engaging with IMechE in Malaysia, in South East Asia Region, and with Young Members Section from the SEAR region. Gaining invaluable experiences in handling Young Members' activities, Ir. Chua hope to contribute more as IYMC Vice Chair.

Congratulations Ir. Chua!



Past Events

1.0 Malaysia Branch YMS Virtual Annual General Meeting (AGM)

IMechE Malaysia Branch YMS had conducted its first virtual AGM on 30th May 2020 from 10am to 11am. The virtual AGM was well attended by 44 members including guests from Malaysia main committee, Brunei and Singapore.

The YMS chair, Mr. Ng Kun Yong welcomed the 21st and latest IMechE Student Chapter, the MAHSA University IMechE Student Chapter.

There is a 30% increase of the Affiliate grade members in year 2019 compared to 2018. Kun Yong attributed this increase to the commitments of the YMS committee members despite this is a voluntary position. He also highlighted the achievements of YMS. Some of the notable achievements are organising the IMechE Leadership Conference 2019, hosting the SOFe SEAR at Asia Pacific University of Technology and Innovation (APU), organising Insight 2019 and various talks and workshops.

YMS committee also highlighted achievements of Mr. Boshaga, runner-up of International SOFe 2019 competition at New Delhi and student chapters of Heriot-Watt University, UiTM and UTAR for winning the Global Engineering Design Solution Challenge.



IMechE Malaysia Branch YMS virtual AGM

Another highlight of the AGM was the talk by Mr. Zen Teng, Business Development Manager sharing the tools and resources available at IMechE Near You website and YouTube channel.

Mr. Chua Yaw Long, Vice-Chair, International Young Member Committee, also shared his three main goals to support YMS members and committee:

- 1) To support paying young members in their personal continuous professional development.
- 2) To support the operations and development of all student affiliate members.

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3) To promote IMechE YMS to general public.

Below are the YMS Committee Members 2020/2021:

Chairman:

Mr. Joel Bharath Pathynathan

Honorary Secretary:

Miss Pooi Ying Choong

Honorary Vice Secretary:

Miss Jauhara Sophia

Honorary Treasurer:

Mr. Teow Hsien Loong

Committee Members:

Ir. Dr. Hoo Choon Lih (Steven)

Ts. Ir. Pragash Krishnasamy

Congratulations to the newly elected YMS committee members!

YMS committee thank all participants for their attendance.

2.0 Virtual Membership Applications Workshop for South East Asia

While IMechE Malaysia Branch physical office was closed during the COVID-19 MCO period, the branch remained on hand to support members continuously. As such, series of the Applications Workshops were continued to be conducted remotely to assist in Chartered Engineer registration.

These workshops have been designed to help those who wish to become Professionally Registered Engineers and Members of the IMechE through each of the UK-SPEC competence statements and application paperwork, preparing them for the submission of application form and Professional Review Interview.

The workshops were conducted by **Mr. Zen Teng**, the South East Asia Business Development Manager of IMechE.

Throughout the MCO period, Zen has conducted 12 slots of the Applications Workshops from 10th April 2020 to 23rd May 2020.

3.0 Webinar "What is and isn't Innovation"

The first South East Asia Region (SEAR) IMechE Webinar has been conducted on 6th June 2020 from 10am to 11am.

Dr. Rahmat Shazi from Malaysia presented a talk titled "**What is and isn't Innovation**" via Video Conference Platform of Microsoft Teams. Dr. Rahmat explained the definition of Innovation and the process involved. The talk was very well attended by more than 40 members from Malaysia and other SEAR Branches.



Dr. Shazi is currently the Technology Director for ShazInnovation Solutions, focusing on Social Capital Analysis. He previously oversaw several Graduate Employability programs, channelling graduates into high value-added industries including Aerospace, Telecommunications, IT and Consulting. He was a member of UTP's Innovation Committee as well as the Tronoh Theatre Shop UTP founder and advisor. While working in Australia, he was also a member of the

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Australia-Malaysia Business Council and the Chairman of the Malaysia Scientific Diaspora from 2013-2014. With this combined Technology and Social Science background, his expertise is acknowledged by higher learning institutions and he is currently on the Industry Advisory Panel of 10 local universities. Prior to this he was a Mechanical Engineering lecturer at UTP, Perak.

Amidst the current Covid-19 Pandemic, Dr. Shazi is heavily involved with the COMBAT (COronavirus MoBile Test units) Project, a mobile screening container for the medical frontlines along with 100+ doctor, designer, engineers & professionals around Malaysia & Abroad. The COMBAT Project is aimed at working out pro-bono to crack solutions to protect and assist medical front liners on the job, saving precious lives.

Coming Events

1.0 Webinar "Create Image Classification AI with Teachable Machine"

Date: 13th June 2020
Time: 10am to 11am
Platform: Microsoft Teams
Speaker: Mr. Nadzuan Bin Narawi

It is free of charge to attend

Further information, visit:

<https://nearyou.imeche.org/near-you/south-east-asia/event-detail?id=17892>

SPECIAL ANNOUNCEMENT

Annual General Meeting

will be conducted in July 2020.

Please look out for the announcement soon.

Contact:

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