

Volume 24 | August 2020

School of Engineering, Asia Pacific University

A large, stylized eagle logo in a dark grey color, centered in the background. The eagle has its wings spread wide, and its tail feathers are detailed with a geometric, leaf-like pattern. The eagle's head is turned to the right.

ENGINEERS INSIGHT

Editorial

ENGINEERS INSIGHT

VOLUME 24

AUGUST 2020

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A New Normal in Teaching & Learning

“There is a saying that new challenges give rise to new opportunities in life. Let’s us embrace the challenge while keeping healthy and safe.”

**ASSOC PROF DR THANG
KA FEI
AUGUST 2020**

Hello everyone, I am very excited to greet you in the first issue of Engineers Insight in 2020. We are now in the Recovery Movement Control Order (RMCO), where when it comes to teaching and learning, resumption of classes and laboratory sessions on campus has slowly began while adhering to strict Standard Operating Procedures (SOPs). Looking back, the School of Engineering has responded to MCO quickly by switching to Microsoft Teams platform for Online Distance Learning (ODL) on 24th March 2020. Although it is a major change in the mode of teaching and learning, the School must ensure that Learning Outcomes of the modules are not compromised and to comply with the “Guiding Principles on Teaching-Learning and Assessment Implementation during Covid-19 Pandemic” issued by Board of Engineers Malaysia (BEM).

The usage of technological tools have flourished from March till now. Digitizer Tablets coupled with Microsoft Whiteboard or OneNote platforms are used extensively and they work-out very well too as students were able to visualize the step-by-step calculation, derivation and graphical illustration live albeit remotely.

Online lectures are all recorded and made available to students in the Microsoft Stream platform for easy refresher of what has been taught. The Microsoft Forms platform has been used in quizzes to evaluate students’ grasp of the content delivered. Attendance taking via QR code in the Attendix platform suited very well to the online environment. The usage of all these technological platforms are unprecedented and our Engineering Lecturers should be applauded for the pace and quality of the adaptation. Our students too have been very supportive and accommodative to the change in teaching and learning, not to mention their patience and active participation in any new platforms their lecturer is testing on. In summary, it has gone a long way since March till now in the RMCO phase where lecturers are now ready for the next wave of mixed-mode teaching and learning delivery, in which both physical and online classes must be managed concurrently and effectively. On assessment front, the planning for Alternative Assessments for Class Tests, Quizzes, Final Exams as well as Laboratory Reports have also commenced as early as March 2020. Adhering to BEM Guiding Principles and university policies, alternative formats such as Online Tests, Take-Home Exams and Virtual Laboratories have been extensively reviewed, prepared and matched to the intended Learning Outcomes to be assessed for specific modules. Where Virtual Laboratories are not possible, physical lab activities have been deferred to a later date such that students are not missing-out on the psychomotor skills and competencies to be developed via such activities.





Perhaps it is important to highlight that numerous planning meetings, trainings and workshops have been conducted behind the scene among your lecturers with only one aim in mind, which is to ensure that your progress in studies and assessments are not disrupted even though physical classes have not been able to take place. It is also important for students to accept that the New Normal in Teaching and Learning is likely to continue for some time to come even though it is now evolving to mixed-mode where partial classes are on campus or online. There is a saying that new challenges give rise to new opportunities in life. Let's us embrace the challenge while keeping healthy and safe. Once again, it is great to see you again!



“Moving from face-to-face to distance learning, it is more than replicating face-to-face learning online, it is about understanding how to mobilize and best engage with the students, it is about generating a sense of community and collaboration and it is an opportunity to work differently and make use of different opportunities that face-to-face learning may not offer.”

Ts. Subhashini A/P Gopal Krishnan, Senior Lecturer, SoE

Education in the new decade post Covid-19

TS. SUBHASHINI A/P GOPAL KRISHNAN
AUGUST 2020

The COVID-19 pandemic has affected educational systems worldwide, leading to closures of schools, universities and colleges. Most governments around the world have temporarily closed educational institutions to contain the spread of COVID-19. Educational institutions closures impact not only students, academician, and families, but have far-reaching economic and societal consequences.

Educational institutions closures in response to the pandemic have shed light on various social and economic issues, including student debt, digital learning, food insecurity, and homelessness, as well as access to childcare, health care, housing, internet, and disability services. The impact was more severe for disadvantaged children and their families, causing interrupted learning, compromised nutrition, childcare problems, and consequent economic cost to families who could not work.

In response to the challenges faced by the educational institutions, UNESCO recommended the use of distance learning programs and open educational applications and platforms that educational institutions can use to reach students remotely and limit the disruption of education.

Moving from face-to-face to distance learning, is more than replicating face-to-face learning online, it is about understanding how to mobilize and best engage with the students, it is about generating a sense of community and collaboration and it is an opportunity to work differently and make use of different opportunities that face-to-face learning may not offer. It is not a judgement of one being better than the other, but rather an acknowledgement that there are different ways of maximizing the impact of face-to-face and distance learning.

Although many educational institutions are yet to implement changes to their institutions in response to the novel coronavirus, they should take cues from others who have already taken action. They should analyze the steps already taken by other educational institutions to understand what has worked, what hasn't worked and how to tackle the challenges they may face. With the spread of the disease expected to worsen before it gets better, educational institutions should take quick action to safeguard their institution and students in preparation for potential further closures.





Besides that, online learning also affects examinations, as educational institutions are working hard on putting in place viable alternatives to on-site exams. This has raised many issues about how to ensure that different assessment methods can be introduced in ways that assesses students fairly, without detriment to their performance. Many educational institutions have tried to embrace these changes as quickly as they could, without sacrificing quality and fairness for speed of implementation.

Post Covid-19 is an opportunity to transform the higher education system. Educational institutes should utilize this opportunity to transform itself. Curriculum design, collaborations, skill development and faculty involvement should start they focus on internationalizing higher education. Today it is Covid-19we don't know what lies ahead in future for the million youngsters.





“Education institutions had been caught in sudden to make a drastic transition from traditional face-to-face class to online education in order to continue to provide education services.”

Ts. Alexander Chee Hon Cheong, Lecturer, SoE

Open Distance Learning (ODL) in Post-Pandemic Era

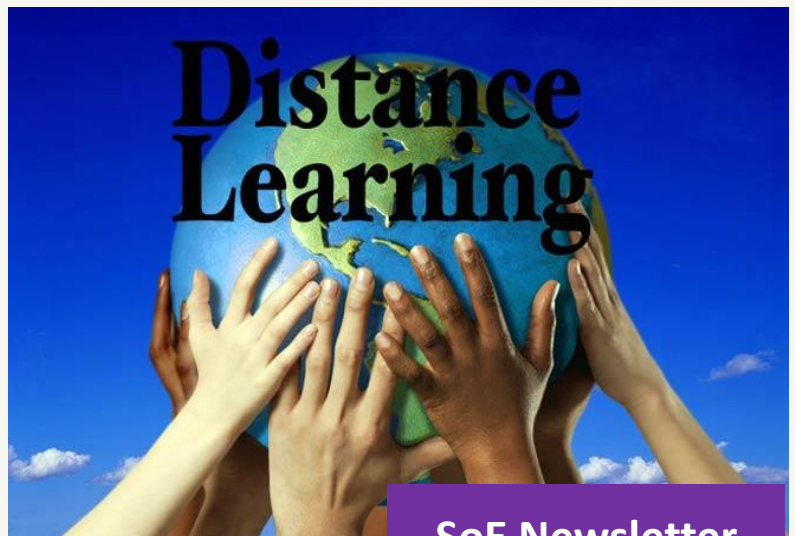
TS. ALEXANDER CHEE HON CHEONG
APRIL 2020

Before the Covid-19 strike globally, online education is designed for upgrading and advancing the career, skill and knowledge of a working adult. It offered a flexibility learning style which not limited by time and location for an individual to access the knowledge bank and able to be assessed either through self-study or by institution official assessments.

However, the global pandemic had further pushed online education to become the one and the only option for learner (regardless of individual status) to keep their learning progress and at the same time keep the social distance. Education institutions had been caught in sudden to make a drastic transition from traditional face-to-face class to online education in order to continue to provide education services. This transition did not make a 100% comfortable feeling for both party - learner and teacher but leave no options.

Online education, or Open Distance Learning (ODL) is no longer an education for working adult alone but also to young and energetic students who majority may holding a pure student's status and without any working experience. Why working experiences been mentioned? Self-Discipline. Nobody can deny the fact that working require a strong self-discipline attitude either you are a businessman, white collar, blue collar or even freelance worker. It is a primary key element to determine a successful pathway develop of a professional and expertise, specialist.

ODL is an education approach strongly require self-discipline from all involved parties. Instructor require to switch on the laptop on-time and delivery the lesson, pre-recorded videos need to be ready before the lesson, more frequent interaction and consultation hours between students (thanks to internet, consultation hours between learner and teacher can be in 24 hours). The focus of students on the lesson during live streaming (not "multi-tasking" during the session), honesty in participate online assessment, keeping track on the latest announcement or info through virtual board or forum etc; all these practice won't make the new learning approach effective without the self-discipline attitude.



Majority of the education institutions knowing this principle well - from top management to teachers, lecturers, or instructors, and that's the reason the most concern when talking about ODL will be - SECURITY. Secure from what? Dishonesty and lack of self-discipline. By setting up restriction (password) to online assessment, virtual invigilation (turning on mic and webcam during assessment), system of attendance tracking, keeping the interaction with learners (instructors cracking their head to capture their attention) become the major new skills of a teacher or lecturer in practicing ODL. This is because every institution wants their graduator who went through ODL are truly be trained and assessed based on the program learning outcome.

Online Education or ODL is the future, which is a development that no one can hinder the growth. But it is also a new era, where the effectiveness of education strongly requires the involvement of many parties than “spoon-feeding” culture. Instructor, teacher or lecturer shall begin to transform and renewing their mind for this new era as well. The promotion of Flipped - Classroom and Blended-Learning before the pandemic of Covid-19 should gave a glimpse of this new education approach, and now it is a good time to accept these practice will either be further enlarged or become the corner stone for a more advance education philosophy been introduced. Learner or students shall start to accept that education is more than a certificate, because sooner, the world will start to realize that a printed-hard copy paper doesn't truly reflecting skill, knowledge and professional conduct, but attitude do. Attitudes will be assessed, and together with the printed qualification, that will be the "true qualification".

It is true that ODL may need new infrastructures or equipment, but in order to make the overall implementation successful, perhaps embrace a new attitude shall be the focus of education in this new generation.





“Planned change is a process of preparing an entire organization for new goals and direction.”

Harvin Kaur, Lecturer, SoE

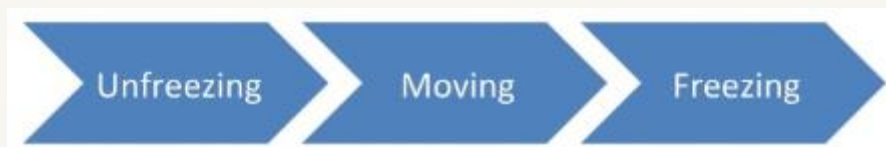
Managing organizational change

HARVIN KAUR
JULY 2020

Planned change is a process of preparing an entire organization for new goals and direction. Basically, a whole new revamp of the organization. This direction can refer to culture, internal structures, processes or rewards. Not all changes are planned and on certain occasions, organizations would suddenly just need to adapt to new market demands and competition. For example, oil companies had planned for the changes that they were going to make as the oil prices were dropping. Planned change is good as the organization would have a vision for what the process of change would look like and what milestones are needed to achieve that goal. Considering employees' concerns are also good in planned change as it allows employees to be more efficient and effective. For example, developing that plan of change has allowed employees to address their concerns at town-halls so that lines of communication is open between the employee and managers. Planned change also reduces risk and inefficiency. By creating a simple plan, it reduces the possibility of an unsuccessful attempt to change. Employees whose managers take time off to ensure that their staff is well taken cared off is something that will boost their employees' morale too.

APPROACH TO MANAGING ORGANIZATIONAL CHANGE

The Lewin Three-Step Change model could be used for organizational change in companies. Change is something that occurs over time. Lewin (1951) suggests that this is a three-step process: unfreezing, moving and refreezing.



Lewin's Three-Step Change Model

The first step to take is unfreezing. A lot of employees tend to be hesitant about changes where they prefer to stay within safe zones. Unfreezing is done through motivation. The oil and gas crisis was certainly a stimulation for the unfreezing to take place in companies. So as a change agent, this is what needs to be brought out for employee turnover data, financial data and enrollment projections to determine the problematic areas in companies to prevent these crisis from happening again.

IoT and Digitalization for Engineers

Asia Pacific University of Technology and Innovation
7th May 2020 10am to 11am

IR. DR. ALVIN YAP
MAY 2020

WEBINAR May 07th, 2020
10:00 am - 11:00am

IoT and Digitalization for Engineers

Organised
ASEAN Engineering Registers (AER)
In collaboration with
Mechanical Engineering Technical Division
(METD)



Summary

Session 1 – IoT and Digitalization for Engineers (Ir. Dr. Alvin Yap)

IoT is about collaborating and bringing data to the cloud faster and more efficient. Dr Alvin provides an overview of IoT and in-depth discussion on how IoT transforms industry. A number of past industry-IoT projects at IoT Research Center (CREDIT), Asia Pacific University of Technology and Innovation will be presented.

Session 2 – Digital Solutions Challenges from Industry Practitioner Perspective (Ir. Dr. Harris A R Sabri)

Ir. Dr. Harris A R Sabri sharing his view and experience dealing with Digital Solutions within his industry since 2017 until present. It covers the challenges, what needs to be prepared, lesson learnt, key critical success factors to ensure successful implementation of digital solutions and sustainability to avoid another "white elephant" solution in the making.

Speaker's Profile



Ir. Dr Alvin Yap is the Hon. Secretary / Treasurer of Mechanical Engineering Technical Division (METD), IEM. Dr Yap is a senior academician by profession with Asia Pacific University (APU) and currently the Head of IoT Research Center (CREDIT) at the University. Prior to that he had years of experience designing manufacturing solutions in the US. He holds multiple patents, and has been actively presenting research papers in local or overseas conferences. Dr Yap's research interests includes optimization of Internet-of-Things (IoT) and has been providing knowledge and expertise to the industry. He holds a B.Sc. and M.Sc. from University of Arkansas, USA, and has received his PhD from Multimedia University, Malaysia. Dr Yap is a registered Professional Engineer in USA, Malaysia, and a registered Chartered Engineer in UK.



Ir. Dr Harris A R Sabri obtained his Degree of Mechanical Engineering from Universiti Teknologi Malaysia in 2003 and obtained his Doctor of Philosophy from the same university in 2018. He started his career in oil and gas as maintenance rotating engineer for National Oil Company downstream utilities plant prior to joining upstream development division, where he became the lead engineer for various turbomachinery and major rotating equipment packages. Currently entering his 16th year in oil and gas industry, he is serving the Centre of Excellence, where he was entrusted to lead the digital solutions related to rotating equipment for upstream business. In addition, he is also the committee member for Mechanical Engineering Technical Division (METD) and Project Management Technical Division (PMTD) Session 2019/2020.

Registration

To register, please email the following details to beo@iem.org.my
• Name, Email Address, Organisation/Company, Country
Webinar link will be sent to the registered participants by **04 May 2020**



Digitalization and Internet of Things

by Ir. Dr. Harris ARS and Ir. Dr. Alvin Yap

May 29, 2020 | Friday | 3 PM
via Zoom App

IMPORTANT NOTES:

1. Webinars will be held at the Zoom Video Call App.
2. Reservations are **STRICTLY** through the google form link provided.
3. Only 90 participants will be able to register per seminar topic.
4. Meeting ID and Password will be sent thru email once reservation is done.

SoE Newsletter

Wireless Sensor Networks and its Applications

Asia Pacific University of Technology and Innovation
2nd July 2020 2.30pm to 4pm

The poster features the APU logo on the left, which includes a stylized globe with orbiting lines. The main title 'WIRELESS SENSOR NETWORKS AND ITS APPLICATIONS' is prominently displayed in large, white, bold letters against a dark blue background. Below the title, the event date and time 'Thursday, 2nd July 2020 | 2:30pm to 4:00pm' are listed. The presenter's name and title, 'SPEAKER: Sr. Associate Professor Venkata Lakshmi Narayana Komanapalli', are shown in a circular inset on the left. Social media icons for Facebook and YouTube are also present.

Webinar poster

The screenshot shows a webinar interface with two video windows on the left. The top window shows Dr. Venkatratnam Chitturi, and the bottom window shows Dr. K.V.L. Narayana. The central presentation slide has a light blue background and features the APU logo at the top left. The slide title is 'Expert Talk on WIRELESS SENSOR NETWORKS AND ITS APPLICATIONS'. The speaker is identified as 'Dr. Venkata Lakshmi Narayana .K', with his credentials 'SMIEEE, LMISTE, MIAENG' and affiliation 'Sr. Associate Professor, Department of Instrumentation, School of Electrical Engineering, Vellore Institute of Technology (VIT), Vellore, Tamilnadu, India.' The date and time '02nd July, 2020. 2:30 to 4:00 pm' are at the bottom right.

Both speakers presenting during the webinar

**DR. CHITTURI
VENKATRATNAM
JULY 2020**

The aim of this talk was to give an overview of the technology behind the development of wireless sensor networks and to discuss new developments and future trends in sensor networks. This talk also included the discussion on various research issues in the development of Wireless sensor networks for various applications like health monitoring, smart grid, forest fire detection, etc.

The need to measure and control the operation of machinery or process equipment is as old as the Industrial Revolution. Plant instrumentation has now become the nerves and brain of the modern manufacturing plant. It regulates and supervises the operation of the equipment within the plant. It also provides the means to make plants economically viable.

Instrumentation allows the use of processes which would be difficult or impossible to operate without automation. Instruments have grown from purely analog systems to the 'smart' systems in use today, ranging from simple potentiometers to complex analyzers such as infra-red spectrophotometers. Yet, for all the advances in systems development, analog field measurements and the electronic signals that carry them are still necessary ingredients in all systems.

The sensors used for the measurement of basic physical quantities such as temperature, pressure, level and flow etc., must be linear, sensitive, accurate, precise, and low powered in the current technologies to be used in process industries, intelligent workplaces like Smart grid, smart localities, ecological monitoring and warfare applications. Intelligent measuring system design involves a self-compensation which can be reconfigured to measure a physical quantity with elimination of major errors.

Advances in mobile robotics

Asia Pacific University of Technology and Innovation
15th July 2020 5pm to 6.30pm

ADVANCES IN MOBILE ROBOTICS

BY
SURESH GOBEE

Suresh Gobee

Srinivas Rao M V

A.P.U. ASIA PACIFIC UNIVERSITY OF TECHNOLOGY & INNOVATION

A.P.C.O.R.E. ASIA PACIFIC CENTER OF ROBOTICS ENGINEERING

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MR. SURESH GOBEE JULY 2020

The webinar addresses the topic of Advances in mobile robotics. Current overview of application of mobile robotics in industry and advances in the current technology is presented covering development in SLAM (Simultaneous Localization and Mapping) and sensor development for navigation and mapping example using camera vision system and LIDAR (Light Detection and Ranging) for was presented. Application using these sensors in autonomous car was also highlighted. Finally, the integration of AI in mobile robot navigation was also presented.

The webinar was held on 15th July (Wednesday) and it had attracted more than 300 viewers online.

Electric Vehicle Development and Charging Infrastructure: Technology and Status of Development in Malaysia

Asia Pacific University of Technology and Innovation
24th July 2020 11am to 12noon

A.P.U.
ASIA PACIFIC UNIVERSITY
OF TECHNOLOGY & INNOVATION
School of Engineering

Electric Vehicle Development and Charging Infrastructure: Technology and Status of Development in Malaysia

f LIVE

Asia Pacific University of Technology and Innovation
24th July 2020 (Friday) 11am to 12pm



Ir Lee Yuen How
Director
EV Connection Sdn Bhd



Dr Che Hang Seng
Senior Lecturer
University of Malaya

Webinar poster

DR. FREDDY TAN KHENG SUAN
JULY 2020

In the effort to decarbonize transport sector, the automotive industry are slowly replacing the fossil-fuel based internal combustion engine (ICE) vehicles with electric vehicles. The diffusion of EVs into the automotive market is not straight forward, and requires supports from not only technical aspect but, to a larger extend, governmental policies as well. Furthermore, electric charging facility is also seen as the main challenge in promoting EV.

In light of this, we had invited Ir Lee Yuen How, Director of EV Connection Sdn. Bhd. and Dr. Che Hang Seng, Senior Lecturer of University of Malaya, to share their insights into the EV industry and charging technology from both the industry and academic's point of view. The webinar was held on 24th July (Friday) and it had attracted more than 1500 viewers online.

Freddy Tan


HS Che

Lee Yuen How


Electric Vehicle Development and Charging Infrastructure

All three speakers presenting during the webinar


Limitation of AC Charger




LEAF



Onboard charger used in the LEAF




i-MIEV



Used in the i-MIEV DC-DC converter with built-in charger

Different Tesla cars have different onboard charger capabilities. Open the charging menu from the charge icon on your touchscreen to view your maximum charge rate.

Onboard Charger	Recommended circuit breaker for max charge rate with Wall Connector
72 amp / 17.3 kW	3 phase 25 amp circuit breaker or single phase 40 amp circuit (if 3 phase power is not available)
48 amp / 11.5 kW	3 phase 20 amp circuit breaker or single phase 40 amp circuit (if 3 phase power is not available)



https://www.nichicon.co.jp/english/pr/topics_pm_ev.html

http://evtime/2018/05/tesla_model_3_gone_battshin/

Society of Petroleum Engineers (SPE 2020)

COLLABORATION BETWEEN ASIA PACIFIC UNIVERSITY, MALAYSIA AND UNIVERSITAS ISLAM RIAU, INDONESIA.



ELIJAH DAMKE
NUR AILIE SOFYAIANA
FEB 2020

The collaboration between the two universities (i.e. Asia Pacific University, APU and Universitas Islam Riau, UIR), is an “International Agreement” signed between the two universities in late January 2020. Under this agreement, students and lecturers from both universities can do exchange programme. Meaning to say that, students from APU can go study in UIR for a semester or two and vice versa for students from UIR. And also same for the lecturers from both universities.

Right after signing the agreement, both universities hosted its first ever ‘International Geoscience Fieldwork’ in February, which saw students and lecturers toured the two states in Malaysia (Pahang and Kuala Terengganu) for three nights and four days.

This fieldwork was part of the students in-course assessment under the Module: ‘Petroleum Geology’, in which students have to write a report and submit it. A total number of 27 people participated in this field trip including students and lecturers from the two mentioned universities.

The first day of the excursion started on a morning of Saturday, 1st of February 2020, where all the students of APU met at bus lounge at APU at 8 am together with our lecture (Ms. Ailie) and then we went and took all the students and lecturers of UIR and left for Pahang. We arrived at our first site (Outbound Temerloh Toll Plaza, Pahang) at approximately between 10 am to 11 am and stayed there for two hours. We left the first site and went to the second site (Bera, Pahang), where we spent another two hours again visiting the site and around 5 pm we went to the hotel in Kuantan, Pahang and slept overnight there.

Our second day of fieldwork started on a Sunday morning, 2nd of February 2020, at 8 am where we left to visit the third site in Pantai Batu Hitam, Kuantan, Pahang, where we spent at-least two hours visiting the site from 10 am to 12 pm. After visiting the third site and as we were about to proceed to visit our fourth site in Pantai Batu Pelanduk, Dungun, Terengganu, there was a sudden downfall of rain, so we did not make and cancelled that and went straight to the hotel in Kuala Terengganu, Terengganu and slept overnight there.

Our third day of the fieldwork/trip started on Monday morning, 3rd of February 2020, at 8 am where we left for visiting the fifth site in Tasik Kenyir, Terengganu. We spent three hours on a ferry/houseboat touring or visiting the lake from 9 am to 12 pm. After that, we left for our sixth and final site in Bukit Keluang, Besut, Terengganu where we visited the site for two hours from 3 pm to 5 pm and then we went to the hotel in Kuala Terengganu, Terengganu, where we slept overnight there.

Our fourth and final day, i.e., Tuesday 4th of February 2020, was the day we travelled back to APU from Kuala Terengganu from 10 am to 5 pm.

This fieldwork/trip was enjoyable with so much fun and laughter. The lecturers from both universities were good to us (students). They (lectures) provided us guidance when visiting sites especially on how to use compass and some other equipment on how to get the dip and strike angle of the rock bed. The students were very cooperative throughout the entire duration of the field trip until we returned to KL in which no accidents, danger or illness were reported from both lecturers and students.

Therefore, this first ever collaboration between the two partner universities was a success.



Picture gallery of Geological Fieldwork

Society of Petroleum Engineers (SPE 2020)



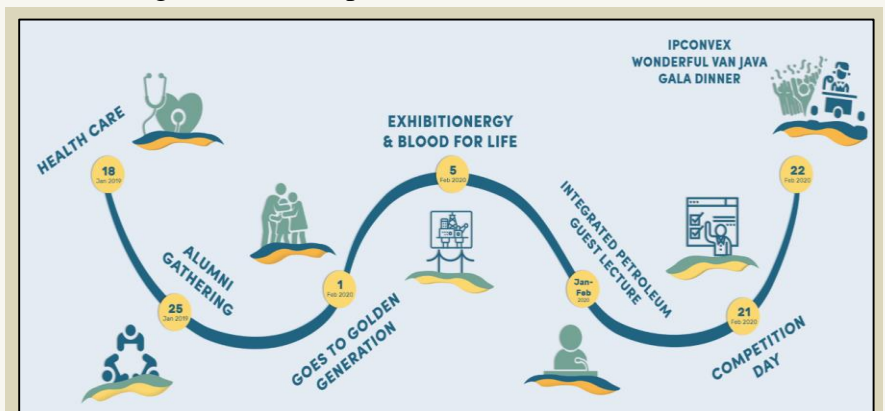
Asia Pacific University
SPE Student Chapter

IPFEST 2020 COMPETITION

**MALEK MARWAN
TS. HARVIN KAUR
FEB 2020**

Integrated Petroleum Festival 2020 or IPFEST 2020 is an annual international Petroleum Competition based event that was created as a collaboration of 3 organizations in Bandung Institute of Technology, which are the Society of Petroleum Engineers Bandung Institute of Technology Student Chapter (SPE ITB SC), Society of Indonesian Petroleum Engineers Bandung Institute of Technology Student Chapter (IATMI SM ITB), and Student Association of Petroleum Engineering "PATRA" Bandung Institute of Technology (HMTM "PATRA" ITB) in responding the urge to meet the energy challenges of the future. By taking the theme "Reinforcing The Energy Resilience Through Progressive innovations", IPFEST 2020 was aimed to be a place of collaboration among young energy enthusiasts and stakeholders to propose progressive solutions and work innovations in connection with realizing the energy resilience.

The IPFEST 2020 consisted of 4 main competitions such as, smart competition, oil rig design competition, paper and poster competition, geothermal case study competition, business case competition, mud innovation competition and plan of development competition. APU provided a very great chance for the students to participate in such a competition in order for students to be equipped with different experiences dealing with further complex engineering problems that requires petroleum background to be solved. The rules and regulations made by the competition organizers specified having only two teams to be registered under one university. Therefore, APU university introduced 6 members to join the competition having each 3 members in one group. The six members were as following, Malek Marwan, Syeb Oubey Khadri, Abdallah El Badaoui, Asif Abdur Rehman, Lawrence Mwanzia and Unais Ashraf. The 2 groups participated in only one completion out of the six mentioned before. The competition selected was the smart competition since such a competition can challenge the participant's knowledge in oil and gas industries through questions in a rally system. The question's materials were about petroleum engineering (reservoir, production, drilling), geology, geophysics, petrochemical, and geothermal. Questions consisted of history, trivia, current affairs, technical questions, calculations, and problem solving related to petroleum industry. The competition was held in Indonesia in the city of Bandung and established in the date of 21st of February 2020. The festival included different events along with the completions as shown below.



Event timeline

The students participated in the competition started their journey by preparing themselves to travel from Kuala Lumpur (Malaysia) to Bandung (Indonesia) to attend the competition. The students traveled to Indonesia one day before the competition to attend the briefing of the competition. One of the lecturers joined the participants going from APU university to give a great support to the students. The students along with the lecturer were received warmly by the ushers taking us from the airport to the accommodation to get some rest. Each team was accommodated in one separated room. After reaching the accommodation the students had a small nap before joining the briefing which was held in the same hotel. The briefing was made to present the rules of the competition along with clarifying the number of each team, while at the end of the briefing there was a diner provided for students to have an ice breaking section between the competitors. After completing the diner, the students were required to go back to their rooms to have a sleep and to prepare themselves before the competition. In the next day, the participants were required to be ready at 6.30am to have their breakfast and to be transported to the location of the competition. The students were guided by the ushers for the entire event. The competition was first started by conducting the first round having 3 teams for each round and only one team from three will be transmitted to the semifinals, while the teams reaching the semifinals will race to reach the finals. Both the teams under APU were able to reach the semifinals and they were eliminated to reach the finals. Although none of the teams could win or reach to the finals, but the experience gained by that day was very enough to come back in further competition and win it. After completing the competition, the students were transported back to the hotel to have a good sleep after a long day and to be prepared for the next day activities. The third day included different activities under the wonderful van java visiting different cultural location within the same city. The wonderful van java encountered higher chances for students to socials with students from different countries along with being introduced to different cultures. The third day ended with the gala diner which was specified as the closing ceremony. After attending the closing ceremony, travel back from Bandung to Kuala Lumpur. The students reached Kuala Lumpur on 23rd of February 2020.



Picture gallery of IPFEST 2020

Society of Petroleum Engineers (SPE 2020)



Asia Pacific University
SPE Student Chapter

Saturday for SPE 1.0

**AHAMADA EL BADAOUI
TS. HARVIN KAUR
APRIL 2020**

This event emerged after the pandemic hit Malaysia and all educational institutions were required to close. It was conducted virtually for three consecutive Saturdays in the month of April. The first session served as an ice breaker and an introduction to SPE and its benefit, it also served as a membership drive. After this first event, we have seen a spur in the membership as more student joined and registered under the flagship of the SPE APU SC. In this first Saturday, we were honored by the presence of Assoc. Prof. Dr Thank Ka Fei, the Head of School who engineering who delivered the welcome address to our audience and highlighted the importance of this student chapter for both our university and the student body.

Saturday is for SPE is the first event of the Society of Petroleum Engineers Asia Pacific Student chapter (SPE APU SC) after its establishment in March 2020.

This event was the steppingstone for our newly established student chapter, it aimed to introduce SPE to the petroleum students, to serve as a basis of recruitment of more students and expose them to the benefits are of joining such an international professional body and what it can offer in the long run.

The second Saturday was a taste of the petroleum world with our faculty advisor Mrs. Harvin Kaur taking the floor to share her journey as a Petroleum Engineer, the challenges and the opportunities that came along in her career. She also shared her experience as a women in the Oil and Gas industry, the challenges she faced in male dominant industry. This was a great opportunity for our student to gain some insight of their future career but also to engage with someone who has been where they want to be. This session was marked by a series of games at the end of the session, which aimed at testing the student's knowledge and basic understanding of petroleum, it was not too technical but was an interactive way to get people thinking and have fun while they learned more about their career.

This event similarly aimed to provide a platform for our students for networking, both between the seniors and the juniors, as well as the lecturers and faculty members. The student chapter has noticed that there was no platform to unite all batches and intakes, and thought it was necessary to have one platform to bring everyone together, to enhance networking, sharing of experience, knowledge, ideas but to also foster a more comfortable learning experience to all.

Finally, the last event was marked by an internship sharing session by four seniors who just completed their internship at Petronas, Iraqi Drilling company, Core lab Malaysia, Aden refinery and Warrior. In this session, they didn't only share what they have learned in the internship and the different projects they undertook, but they also shared on the application process, questions like when, where and how to apply were all addressed by our young panelist. This was one of the best Saturday as it was in the hands of the students themselves.

We have received extremely positive feedback for a first event, and this engendered the second event of our student chapter, which is no other than the second instalment of Saturday is for SPE, but this time in collaboration with three other international universities' SPE Student chapter, namely: University of Houston in Texas, IFP school in Paris and Imperial college in London with SPE Asia Pacific University being the host.

SIET 2020

2ND International Conference on Sustainable Innovation in Engineering and Technology

The 2nd International Conference on Sustainable Innovation in Engineering and Technology 2020 (SIET 2020) organized by School of Engineering APU on 17th June was a great success. Although face-to-face conference is prohibited due to Covid-19 outbreak, the organizing committees were able to switch the conference to the very first e-conference in Malaysia within 2 months. The Conference was an overwhelming success, attracting more than 60 participants from all over the world, including speakers and researchers from different parts of the country. All the presentations were recorded and uploaded on SIET 2020 official website. All accepted papers were published in Scopus-Indexed journal.

DR FREDDY TAN KHENG SUAN
JUNE 2020

The SIET 2020 was inaugurated by Prof. Dr. Ir. Vinesh Thiruchelvam, Deputy Vice Chancellor and Chief Innovation Officer of APU. The keynote speech was delivered by Dr. Soo Beng Khoh, Director of PMO Innovations Sdn. Bhd. on “Envisioning 2030 with Sustainable Innovations”. Both the inauguration and keynote speech were delivered online and received more than 3000 views.





The International Conference of Sustainable Innovation in Engineering and Technology (SIET) 2020

Keynote Speech

“Envisioning 2030 with Sustainable Innovations”

Date: 17th June 2020 (Wednesday)
Time: 10:00am to 11:15am

 LIVE

Asia Pacific University of Technology and Innovation



Opening Speech
Prof Ir Ts Dr Vinesh Thiruchelvam
Deputy Vice Chancellor
Asia Pacific University of Technology and Innovation



Keynote Speaker
Dr Khoh Soo Beng
PhD, SMIEEE, MIEM, MIET, MIAOIP
Director
PMO Innovations Sdn Bhd

Webinar poster

Special appreciation and thanks to all the organizing committees – Dr. Freddy Tan Kheng Suan (Conference Chair), Dr. Shankar Duraikannan (Publication Chair), Dr Lau Chee Yong (Publicity Chair), Dr. Chandrasekharan Nataraj (Logistic Chair) and Krishna Ravinchandra (Technical Committee).