



Q1, JANUARY TO MARCH 2021 ISSUE



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# Message From The Dean

Assalamualaikum and Salam Harmony FKJ, Faculty of Engineering, UMS to all respected readers. It is my pleasure to welcome you to our first quarter (January – March) year 2021 FKJ Newsletter.

We are excited to announce the launch of our quarterly FKJ Newsletter Q1/2021 issue. With the launch of this issue, it marks the one-year mark of the FKJ Newsletter. Our Newsletter aims to serve readers up-to-date information about what has been happening with the faculty administration, academic events, student activities, faculty research, development and innovation, and success stories of our staffs. You may find a selection of articles showing the variety of up-to-date information about the faculty in the stated categories. In March, FKJ student was allowed to return to campus in phases. The faculty has implemented standard operating procedures (SOPs) since February in all laboratories and tutorial rooms to ensure teaching and learning activities are carried out in accordance with measured safety. Further information on our preparation on the SOPs can be found in this issue.



Due to the COVID-19 outbreak, T&L activities for Semester 2 Session 2019/2020 at the Faculty were disrupted. Therefore, the semester resumed with a switch from face-to-face T&L to online T&L. The impact of online T&L on the performance of our students for Semester 2 Session 2019/2020 is also discussed and presented in this issue. Another article that might be of interest to you is the student activity where our Civil Engineering students won a Gold Award in the Research and Innovation Poster Competition. We also encourage our students to engage with the community through one of our project-based learning activities. I hope this issue can give you an insight into what has been happening around the Faculty. We will continue to provide up-to-date information on many activities in which the Faculty are involved through the upcoming Newsletter issues. I would like to take this opportunity to sincerely thank all the members for their contribution to making the FKJ Newsletter successful. To the readers, we always welcome your feedback and suggestion to help us improve. Finally, may this month of Ramadan be full of blessings, forgiveness and guidance for you and your family! Happy Ramadan!

In the meantime, stay safe and healthy!

Together we are stronger.

With warmest regards,

Associate Professor Ts Dr. Ismail Saad Dean of FKJ, Faculty of Engineering, UMS

# 2021 FKJ Media Committee

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#### **ACKNOWLEDGEMENT**

Thank you to those have contributed directly or indirectly towards preparing the FKJ Newsletter. We would like to invite you to send your article to us at arland@ums.edu.my.

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### **FACULTY OF ENGINEERING**



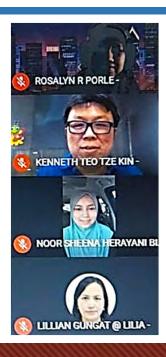
## FKJ Curriculum Review Workshop Series 1

Reported by Nurhani Sugianto.

22<sup>th</sup> January 2021 - Faculty of Engineering (FKJ) has held a Curriculum Review Workshop (Series 1) which was attended by all Program Heads and appointed members. Curriculum review is one of the requirements in ensuring that the programs offered are always relevant and meet the needs of current technology and developments. The Curriculum Review Workshop began with a welcoming speech by Professor Ir. Dr. Zainal Zakaria, former Deputy Dean (Academic and International). He stated that the curriculum changes should not exceed 30 percent and the faculty aims to adopt the new curriculum starting the 2021/2022 academic session. The workshop began with a description of the Implementation of Curriculum Review and Curriculum Change Calculation Method presented by Dr. Junainah Jaidi, Director of the Center for Excellence in Teaching and Academic Quality (PKPKA) UMS. Then, followed by a discussion on the preparation of relevant documents by all programs. The last time FKJ reviewed the curriculum was in 2017 where the implementation of the new curriculum took place for students attending the 2017/2018 session.









# BENGKEL KAEDAH PENGIRAAN PERUBAHAN KURIKULUM

### **FACULTY OF ENGINEERING**



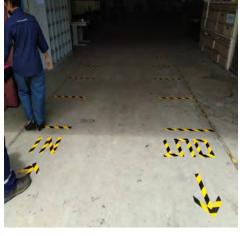
## FKJ SOP Preparation for Semester 2 Session 2020/2021 Student Admission

Reported by Azmi Bin Jumat.

The preparation of standard operating procedures (SOP) is a necessary safety to measure the spread of coronavirus disease (COVID-19) when teaching and learning (T&L) activities are carried out. The SOP was put into place on  $16^{th} - 18^{th}$  February 2021 in all laboratories and tutorial rooms by all administrative, science and technical service staffs of the Faculty of Engineering (FKJ). Some of the SOP included a QR Code SMART - to record the attendance of students, staffs and visitors, social distancing tape markings on floors, COVID-19 awareness poster, exit/entry signage, etc.









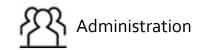








### **FACULTY OF ENGINEERING**



## Quality Management System Compliance Audit MS ISO 9001:2015

Reported by Azmi Bin Jumat.

On 24<sup>th</sup> February 2021, the Faculty of Engineering (FKJ) was audited MS ISO 9001:2015 audit by SIRIM. The MS ISO 9001:2015 was an audit that comprises Teaching & Learning Management (undergraduate and postgraduate), Research, Publication, Community Service, Internationalization and All Support Services Management Scopes. The auditor for FKJ is Pn. Elly Nadia Bt Che Afzar and the outcome for the audit shown that the Faculty had fully complied with the second-year compliance audit of the MS ISO 9001: 2015 Quality Management System (QMS) in 2020.











## **FACULTY OF ENGINEERING**



## Communal Work Activity to Set-up FKJ Exhibition Room

Reported by Azmi Bin Jumat.

An activity of "gotong-royong" was held by the Faculty of Engineering (FKJ) Craft team to clean and set up the FKJ Exhibition Room located in the faculty foyer on 10<sup>th</sup> March 2021. The purpose of holding the FKJ Exhibition Room is to showcase and promote any research and innovation projects to Faculty visitors.













### **FACULTY OF ENGINEERING**



### UMS Vice-Chancellor Year 2021 Mandate

Reported by Azmi Bin Jumat.

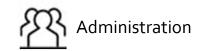
The Executive Committee members of the Faculty of Engineering (FKJ) were gathered together at the FKJ Seminar room on 26<sup>th</sup> February 2021 to watch a live-streamed of the UMS Vice-Chancellor Year 2021 Mandate via the Official Facebook of UMS. In his message, the Vice-Chancellor has focused on three important essences: 1) Optimizing Resource Utilization; 2) Empowering Delivery; and, 3) Boosting Excellence. Besides that, UMS has determined six research niches: Aquaculture and Agents of Socioeconomic Change, Smart Agriculture and Agro-Based Food Industry, Indigenous Development and Empowerment, Biodiversity and Environmental Sustainability Tourism and Social Innovation, and Public Health and Human Welfare.







#### **FACULTY OF ENGINEERING**



## Online Briefing On Admission To The FKJ Study Programs

Reported by Nurhani Sugianto.

26<sup>th</sup> March 2021 - Faculty of Engineering (FKJ) has held a briefing on admission to FKJ Study Programs for the student of Science and Technology Preparatory Center (PPST), UMS. The annual program was held virtually this year through the Webex platform in line with the new norms of COVID-19 prevention. The briefing, which was attended by 150 students, was held to provide exposure to PPST students about the study programs offered at FKJ. Students are briefed on the entry requirements, facilities, the advantages of the programs offered and the career opportunities.

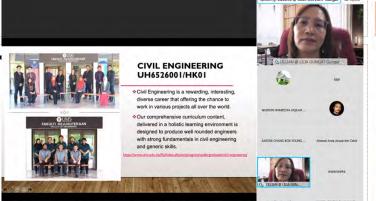
Associate Professor Ts. Dr Ismail Saad, Dean of the FKJ welcomed all PPST students to this briefing. He emphasized that students should take the opportunity in this briefing to seek important so that their qualifications and interest suit their choice of selection. Besides that, the Dean also provide some information on instilling the Program Educational Outcomes (PEO) in teaching and learning (T&L) activities carrried out in FKJ. Instilling of PEO in T&L will produce graduate engineers who practice professional characteristics that able to continuously improve their skills via a lifelong learning mentality. Graduates are also expected to be directly involved in the development of innovation and technology that meets the needs of society and the country.

Also attended the briefing were Dr. Mohd. Suffian Misaran @ Misran, Deputy Dean (Academic and International) and Head of Programs comprising of Civil Engineering, Electrical and Electronic Engineering, Chemical Engineering, Mechanical Engineering, Electronic Engineering (Computer) and Oil and Gas Engineering Programs. The briefing ended with question-and-answer session.











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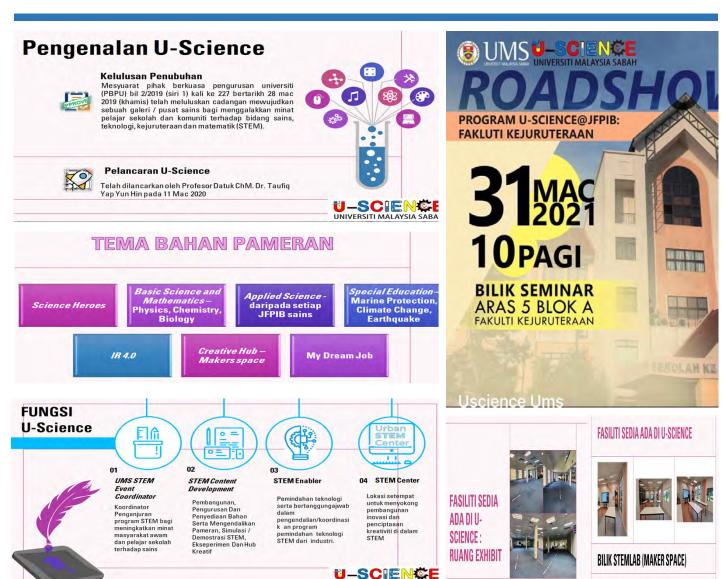
#### **FACULTY OF ENGINEERING**



## Roadshow Program U-Science@JFPIB

Reported by Azmi Bin Jumat.

31<sup>th</sup> March 31 2021 - U-Science Universiti Malaysia Sabah (UMS) has held the U-Science @ JFPIB Program and their first destination was the Faculty of Engineering (FKJ) Roadshow led by En. Muhin Haji (Deputy Chief Science Officer) along with several other U-Science staffs. The roadshow aims to explain to the faculty about U-Science, especially the function and purpose of its establishment. Faculty were briefed on the planning of their activities and encourage to be involved in activities to make it a success such as participation in exhibitions. Also present during the roadshow was Dr. Mohd. Suffian Misaran @ Misran (Deputy Dean of Academic & International), Assoc. Prof. Dr. Kenneth Teo Tze Kin (Deputy Dean of Research & Innovation), En. Azmi Jumat (Deputy Registrar) Head of Programs and Management and Professional Officers of FKJ.



UNIVERSITI MALAYSIA SABAH



## **FACULTY OF ENGINEERING**

## The Impact of Online Teaching and Learning on Students' Performance

Reported by Associate Prof. Dr. Renee Chin.

Due to the Covid-19 pandemic, there is a need for the movement control to curb the spread of the virus, which affects all daily activities. At the Faculty of Engineering (FKJ), Universiti Malaysia Sabah (UMS), teaching and learning (TL) activities was disrupted starting from 16 March 2020. Consequently, TL activities for Semester 2 Session 2019/2020 was suspended, five weeks of the semester had commenced. Online TL resumed for two weeks from 23 March to 5 April 2020, before an extended mid-semester break took place. During this mid-semester break, online TL could take place, upon agreement between lecturers and students. The semester resumed in the form of fully online TL mode from 9 June 2020 for seven weeks, before the final exam took place beginning from 27 July 2020.

With the switch from face-to-face TL to online TL, there are many challenges that require both lecturers and students to adopt and adapt. One of the most affected aspects are hands-on elements in TL, which includes laboratory and field work. Due to the nature of remote teaching and learning, field works were postponed, and laboratory works were either conducted in virtual or simulation mode or deferred to a future semester. To adapt to this new norm, the Engineering Accreditation Council (EAC) issued a document on 'Guiding Principles' on 29 March 2020 to guide IHLs to plan and re-organise their TL activities. FKJ and UMS had taken initiatives to provide guidance and ideas to lecturers to help prepare them for online teaching and learning. In view of keeping abreast with various information and sharing of knowledge, FKJ had organized the following activities:

Date	Event	Speaker
3 June 2020	Talk on "EAC Guiding Principles and Alternative Assessment for Engineering Courses During Covid-19 Pandemic"	Prof. Ir. Dr. Siti Hawa Hamzah Director of EAD and ETAD
10 June 2020	Forum on "Good Practices for Online Teaching & Learning: Experience Sharing"  1. "Experience Sharing on Good Practices for Online Teaching and Learning"  2. "Assessment Using Schoology"  3. "Conducting Online Tests Using SmartUMS"  4. "Continuous Assessment Using E-Portfolio"	Mr. Liau Chung Fan  AP. Ir. Dr. Nurmin Bolong  Dr. Sariah Saalah  Ir. Dr. Chua Bih Lii
13 January 2021	Knowledge Sharing Session on "Online Final Exam at the Faculty of Engineering, UPM"	Prof. Ir. Ts. Dr. Nor Kamariah Noordin Dean of Faculty of Engineering, UPM & Director of MCED



It is important for the Faculty to uphold the same standards of our practices in TL, to ensure that the students receive the same level of learning experience online. FKJ had conducted surveys to get to know the students' learning environment better. This helps lecturers to plan for TL activities better, to cater for any shortages of facilities or infrastructure at the students' end. FKJ had also taken the initiative to set-up an ad hoc taskforce to tackle issues on online final examination for Semester 2 Session 2019/2020.

The following is an analysis on students' performance for the academic session 2019/2020. This was done to have a better understanding on the students' performance, as gauge of their adaptability from face-to-face to online learning, as well as the gauge the effectiveness of the shift from face-to-face teaching strategies to online mode.

Figures 1 and 2 show the overall academic achievement of students for session 2019/2020. Overall, the students' results do not differ by a significant amount from Semester 1 to 2. There are noticeable differences between those who scores between 2.00 to 2.99 CGPA and 3.00 to 3.66 CGPA, whereby there is a decrease in students who score between 2.00 to 2.99 CGPA and an increase in students who score between 3.00 to 3.66 CGPA. In both cases, the difference is less than 6%. From Figure 2, there is an increase in number of students scoring a place on the Dean's List in Semester 2 for all the programs. It is generally acknowledged that there are some advantages that comes with online TL. With most lectures online are recorded and shared, students could review the lecture at their own time and pace to help them learn better.

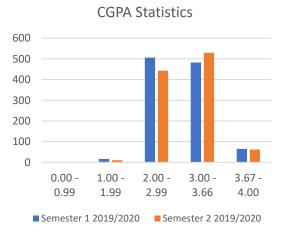


Figure 1 CGPA Statistics for Academic Session 19/20

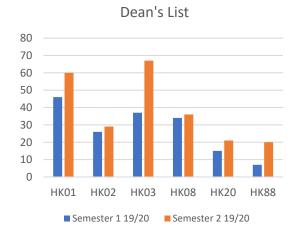


Figure 2 Dean's List Breakdown Per Program for Academic Session 19/20



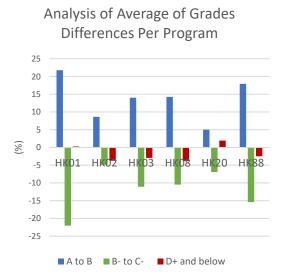


Figure 3 Analysis of Average of Grades Differences Per Program

### Differences Per Year of Study 25 15 10 (%) nd Thir Year Final Year -10 -15

■ B- to C-

Analysis of Average of Grades

■ D+ and below Figure 4 Analysis of Average of Grades Difference Per Year of Study

Figures 3 and 4 show a breakdown of the difference in average percentage of students grades between Semester 1 and 2. In Figures 3 and 4, a positive difference in percentage indicates an increase in number from Semester 1 to Semester 2, and a negative difference shows a reduce in number from Semester 1 to Semester 2. In both Figures 3 and 4, a similar trend is observed, whereby the average percentage of students scoring B- to C- in the Semester 2 is reduced and the average percentage of students scoring B and above is increased. This is consistent with the improvement of CGPA seen in Figure 1. It is worth acknowledging that there are other factors which may result affect the performances of students, which includes the differences in the nature and level of difficulty of the courses taken in both semesters, and the nature of assessments may be diversified.

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With online teaching and assessment, there are some challenges that the students need to overcome, which includes internet accessibility, lack of a conducive space to study, added stress and anxiety of sitting for online exams, and the shift from closed-book to open-resources and/or open-ended questions. There are, however, various advantages that come with online TL, which includes the availability of a wide range of resources online. This helps to diversify the way of TL. Some lecturers have ventured into innovative ways of assessing students, which include e-portfolios, oral examination, group work and interview.



## Lab Accreditation Talk & Sharing

Reported by Malcolm Boxey Jilimin.



The Faculty of Engineering (FKJ) started the new year with a talk & sharing session on laboratory accreditation by Assoc Prof. Dr. Zaleha bt. A. Aziz, Director Centre of Instrumentation and Science Services (PIPS) and Assoc. Prof. Dr. Moh Pak Yan, Head of Water Research Unit (WRU) on the 5<sup>th</sup> January 2021.

AP Dr. Zaleha bt. A. Aziz shared the university has 2 accreditated laboratories which are the Halal Laboratory Services (Faculty of Food Science & Nutrition) and Water Analysis Laboratory (Water Research Unit). She added before any laboratory or services to be accreditated, it is imperative for the faculty to conduct a market research/feasibility study on the proposed services as the continuity of the accreditation requires significant investments (certification, maintenance of the analytical equipment, etc). Other preparations that need to be factored in are human resource, conducive working space, financial health, analytical equipment and accreditation consultancy.

AP Dr. Moh Pak Yan in his session shared Water Research Unit's experiences in acquiring accreditation by SAMM (Skim Akdreditasi Makmal Malaysia, MS ISO/IEC 17025) in Chemical Testing (Water & Wastewater). He also touched on the many challenges the unit faced in the process and gave suggestions that the faculty could take in the future.

The talk was attended by 35 participants. The faculty would like to thank AP Dr. Zaleha bt. A. Aziz and AP Dr. Moh Pak Yan for their time and valuable insights. The faculty aspires to a positive outcome in the future.

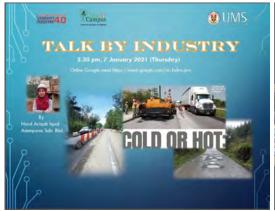
#### **FACULTY OF ENGINEERING**



## Industrial Talk on Road Rehabilitation for Civil Engineering Students

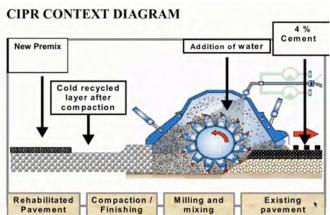
Reported by Farrell Nereus Aegidius (Civil Engneering Student) & Ts. Dr. Lillian Gungat.

In the last days of the year 2020, there was an incident involving our Minister of Science, Technology, and Innovation, Khairy Jamaluddin. He was involved in a bicycle accident where he rides through a hole on the road and then fell to hurt. It is no stranger anymore to Malaysian when it comes to having holes in their daily route/roads. Road maintenance is very important in order to curb this kind of problem. A talk about road rehabilitation was conducted on the 7<sup>th</sup> January 2021 which was attended by 3<sup>rd</sup> year UMS Civil Engineering student. This talk was delivered by Miss Nurul Ariqah Ispal (CS Engineer, Astenpave Sdn. Bhd.) and invited by Dr. Lillian Gungat (Head of Civil Engineering Program, UMS) for the subject Highway Engineering (KA34503). This talk was mainly conducted to open up the students' mind on how the industry address problems involving road deterioration. During the talk, an interesting process of road rehabilitation was explained by Miss Ariqah where most of the 3<sup>rd</sup> year students have not encountered yet. It is called the CIPR(Cold In-Place Recycling) which generally means in-situ breaking up of existing pavement using a recycler machine. This machine crushes, pulverizes, and blends the existing pavements into gradation and re-compacted to become a new pavement layer.











## Special Topics Lectures on "Measurement and Instrumentation"

Reported by Dr. Renee Chin.



Due to restrictions during the Covid-19 pandemic, two special topic lectures were organised for 3<sup>rd</sup> and final year students of the Electronic Engineering (Computer) Programme. The aim of these talks are to provide industrial exposure to students. The first talk was given by a licensed aircraft engineer from Malaysia Airlines Berhad, Mr. Amir Ariff Shaharuddin on the topic of "Electronic Flight Instrument System (EFIS)", specifically on air data and navigation system. The talk was conducted on 13<sup>th</sup> January 2021 on Google Meet, and was attended by 27 students. The speaker talked about the types of instruments that are on the aircraft, how it functions and what purposes do they serve. Students were enthusiastic to learn more about about instrumentation technologies that are on aircrafts.





The second talk was given by Dr. Liam Marsh from University of Manchester, UK, on 21 January 2021 on Zoom. Dr. Marsh has worked extensively over the past decade on realising instrumentation systems from the laboratory to field implementation. During his guest lecture on the topic of "Developing Sensors and Instrumentation from Lab to Field", he gave examples of instruments and applications that were developed and provided many insights into the process of developing instruments starting from the lab, field testing and field implementation. The lecture focused on practical aspect of design and developing prototypes and systems, which students found to be very beneficial for their studies and future career. The talk was attended by 28 students, and a few invited postgraduate students and lecturers.



# Lecture on "IPv6 Networks & Routing Technologies" for Electronic Engineering (Computer) Students

Reported by Dr. Yew Hoe Tung.



Electronic Engineering (Computer) Program, Faculty of Engineering (FKJ) has invited Dr. Tan Soo Fun (Certified IPv6 Network Engineer, Certified IPv6 Security Engineer, Huawei Certified ICT Professional, and IBM Certified Academic Associate), to give a lecture on IPv6 Networks & Routing Technologies to final year students who currently taking the Computer Network (KS41103) course. The lecture covered the IPv6 characteristics, format and addressing types, address stateless autoconfiguration, and routing technologies.



Apart from this, Dr. Tan who is also a person-in-charge for UMS Huawei ICT Academy Centre introduced a few value-added courses such as Huawei Certified ICT Associate (HCIA) in Routing & Switching, Storage, and Cloud Computing, and highly encourage students to join the Huawei professional certification courses to enhance their resume before leaving the university. Since 2018, they are more than twenty students from the Program Electronic Engineering (Computer) have successfully obtained the HCIA - Routing & Switching certificate.

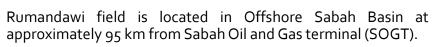
#### **FACULTY OF ENGINEERING**



## Webinar on Rumandawi Field Development Project

Reported by Ts. Dr. Norzilawati Mohamad

Field Development Project (FDP) is one of the course offered for Master of Engineering (Oil and Gas) by Faculty of Engineering. The event was held on 23<sup>rd</sup> January 2021 via Webex platform. In this course, students will be divided into team and specific roles which will be represented as petroleum company. The objective of this course is providing an experience to the students specifically on how to carry out a technical and economics study of the proposed development utilizing the latest technology available. The experts from industry were invited to evaluate the course.





NEO ENERGY is to provide a comprehensive development plan that includes geological interpretation, petrophysics, geological and reservoir modelling, facilities engineering design, drilling program, well completion and project economics for the Rumandawi field. The team is required to identify the real filed given for the project using the petroleum simulator. Additionally, the team also required to plan of various optimization and economic calculations including cost and revenue of the production for estimated years. Besides, the presented team is evaluated by the invited experts from petroleum industry to make sure the significant of the production process in Malaysia. This sharing session is important to make sure that students really understood how the oil and gas production is take place in this country by following the designated standards and regulations .



## **FACULTY OF ENGINEERING**



# Plastic Waste into Sustainable Brick Paver Project: Appreciating Solution in Waste Management.

Reported by Associate Prof. Ir. Dr. Nurmin Binti Bolong & Mohamad Shahran Bin Sulaiman.

23 FEBRUARY 2021 –Civil Engineering Program at University Malaysia Sabah (UMS) completed the Sustainable Brick Paver named "The GreenThumb Project" assembled at the Faculty of Engineering. Thanks to Khind Starfish Foundation through its Project of Happiness incentives has sponsored the scheme. The project involves 16 final-year undergraduate students who aim to promote sustainable development by building the walkway track out of recycled plastic as one of the Project-based learning under the Environmental Engineering course. The project has facilitated the recycled materials into the construction industry by applying engineering knowledge and at the same time fosters a sense of cooperation and an understanding of environmental obligations.



Fig. 1 The fabrication of eco-brick paver at Civil Engineering Concrete laboratory of UMS.

As the course instructor and the project team advisor, Associate Prof. Ir. Dr. Nurmin Bolong emphasize fabricating eco brick from the class or lab into practical site application. The unique aspect that differentiates this brick is that the mix nature modified by replacing a portion of the fine aggregate with 10% waste plastic bottles. The project was completed in approximately three months, from December 2020 to February 2021. Despite various challenges primarily due to the Movement-Control-Order from the Covid-19 pandemic. Starting with online team discussion and task preparation since December 2020, the team finally materialized the bricks fabrication in the Concrete Laboratory at the Faculty of Engineering in January till February 2021. The product of 384 eco-brick pavers were manufactured and painted red and orange, with rectangular style mould to create eight sections of interlocking-brick layout and aesthetic purpose (fig. 1). The bricks were finally installed and constructed at the chosen site (fig. 2), with a clearance of the existing ground dirt, overlay with 50mm of chipping aggregate, 50mm of the sand sheet, and finally 40mm bricks paver layers for the brick pavement.



Fig. 2 The eco-bricks were installed at Block C (next to surau - Al Khwarizmi) Faculty of Engineering.

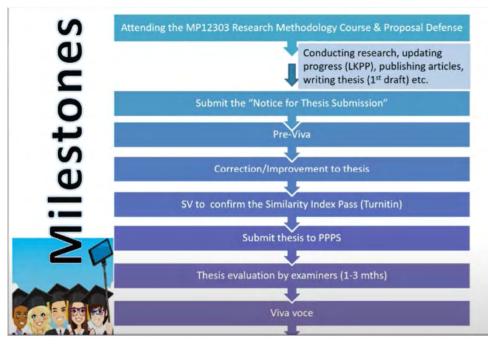


## FKJ Postgraduate Welcoming Event Semester 2 2020/2021

Reported by Dr. Mazlina Mamat.

The "FKJ Postgraduate Welcoming Event for Semester 2 2020/21" was held on 26<sup>th</sup> March 2021 for national students and on 2<sup>nd</sup> April 2021 for international students. The objective of the event is to familiarize students with the faculty and to explain the rules and regulations of postgraduate study in the Universiti Malaysia Sabah (UMS). More than 30 postgraduate students had attended and listened attentively to the briefing given by Dr. Mazlina Mamat, the coordinator for FKJ Postgraduate Program. The event was also attended by Associate Professor Ts. Dr. Ismail Saad, the Faculty of Engineering (FKJ) Dean.







#### **FACULTY OF ENGINEERING**

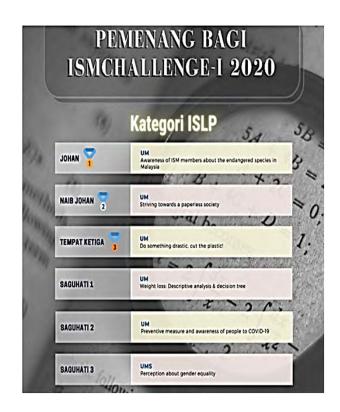


## HKK88 Grab Consolation Prize in ISMchallenge-I 2020

Reported by Ts. Dr. Norzilawati Mohamad.

International Statistics/Mathematics Challenge 2020 (ISMchallenge-I 2020) is a competition for bachelor degree students in statistics/mathematics to share their ideas and creativity in a project related to statistics/mathematics. This competition was held from 7<sup>th</sup> December 2020 until 15<sup>th</sup> January 2021 using an online platform with a theme of "Statistik Memacu Pencapaian SDG(Sustainable Development Goals)".

ISMchallenge-I 2020 is open to all IPTA and IPTS students with a fee of RM100 per group. There were two categories in this competition which are the International Statistical Literacy Project(ISLP) and non-ISLP. For the ISLP category, students were required to do a mini survey about the environment, biology or sustainability development. Then, a poster needs to be created based on the statistical data obtained from the survey. For the non-ISLP category, students are required to do a video of a group project related to statistics/mathematics.



Winner for the ISLP category will represent Malaysia for the ISLP 2021 competition at international level. Program HK88 managed to sent 2 teams to the ISMchallenge-I this year represented by students from Year 2 and 3. Surprisingly, both teams won the consolation prize for 3<sup>rd</sup> and 4<sup>th</sup> placed for the first time participation. Congratulations to participants!





#### **FACULTY OF ENGINEERING**



# Civil Engineering Student Wins Gold Award In Research And Innovation Poster Competition 2021

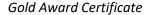
Reported by Ts. Dr. Ahmad Nurfaidhi Rizalman.

A 2019 Civil Engineering alumni of the Faculty of Engineering at the Universiti Malaysia Sabah, Muhammad Darwis bin Abdul Rauf has won Gold Award in Research and Innovation Poster Competition 2021 on the 29<sup>th</sup> January 2021. The competition was organised by MNNF Network, an event management company based in Negeri Sembilan, Malaysia. There were 67 projects from numerous local universities and colleges submitted for this competition.

Muhammad Darwis' winning entry is the poster of his final year project titled "Performance of Binary and Ternary Blended Cement Concrete Containing Eggshell and Silica Fume." His project was also funded by the Ministry of Education Malaysia under the grant FRGS RACER 27-2019. He claimed that the award came to his surprise and happy to receive the award since it was the result of his year-long project.

His supervisor, Ts. Dr. Ahmad Nurfaidhi Rizalman was impressed by his commitment and hard work towards the project. He also credited the work to Broneca Sibin, the research assistant of the grant, who has helped completing the laboratory tests of the project during the COVID-19 pandemic.







From left: Ts. Dr. Ahmad Nurfaidhi Rizalman and Muhammad Darwis bin Abdul Rauf

#### **FACULTY OF ENGINEERING**



## Forum Petroleum: Role Of Oil & Gas Industry

Reported by Ts. Dr. Norzilawati Mohamad.

Student Chapter Forum about Petroleum 2021 entitled "Role of Oil and Gas in Industry" was held online on 26<sup>th</sup> March 2021. The Microsoft Team platform was used as a medium to connect all participants and invited panels for the program. This program is organized by the Society Of Petroleum Engineer Club, SPE UMS Student Chapter in collaboration with the Society Of Petroleum Engineer, SPE Sabah Chapter.

The program has exposed the effects of the COVID-19 virus on jobs and job opportunities in the oil and gas industry reviewed by the panels. Invited panels, Ir Jafni who is Director of Katsu Perunding Sdn. Bhd. explained that covid-19 did not impact the oil and gas industry as badly as expected. Up to now, the operation of the oil and gas industry is still going as usual. The panels also talked about the projects in the market industrial for example "Artificial Intelligence" (A.I). Meanwhile, Ms. Wani recounted her journey as a student by created her path in business field and managed to be Business Development Manager at Ikon Science Malaysia Sdn. Bhd. Additionally, panels also shared their experienced to students on ways to deal with ups and downs academics also towards built career in the oil and gas industry. From an employer, overview of panels that they informed are more interested in candidates who are optimistic and think outside the box. This gave a new impetus to the participants that exam results do not reflect one's career. Finally, the panels also provide the conditions that need to be met in entering the oil and gas industry.





#### **FACULTY OF ENGINEERING**



## Civil Engineering Students Win Third Place At Virtual Tower Crane Competition 2021

Reported by Ts. Dr. Ahmad Nurfaidhi Rizalman.

Students of Universiti Malaysia Sabah from Faculty of Engineering finished third place at the Virtual Tower Crane Competition 2021. The winning team named as 'Two Over the Five' comprised of the third year Civil Engineering students, Lim Hong Yi and Yee Yi Zhen. Also joined the competition was the first year Civil Engineering students, Jazmina Bazla binti Jun Iskandar and Putri Nurmaisarah binti Mohd Jamil Nassir, under team 'Sparking Newbies.'

The competition was hosted by Universiti Malaysia Pahang and the Institute of Engineers Malaysia (UMP-IEM) student section. In the competition, the participants needed to submit a video and poster of their crane structure model before the virtual presentation on the 27<sup>th</sup> March 2021. At the presentation, the participants were evaluated by three academic panels from Universiti Malaysia Pahang and Universiti Malaysia Perlis.

Supervised by Ts. Dr. Ahmad Nurfaidhi Rizalman, the students took home prize money, e-certificate, and merchandize. He said that engineering competition is a great platform for students to apply knowledge learned from the classroom in real life application. He hopes that this achievement will open a window of opportunity for Faculty of Engineering students to participate the competition in the national and international levels.





From left: Yee Yi Zhen, Lim Hong Yi, Putri Nurmaisarah binti Mohd Jamil Nassir, and Jazmin Bazla binti Jun Iskandar





Virtual presentation through Google Meet

### **FACULTY OF ENGINEERING**



## IEEE Student Branch (UMS) Annual General Meeting 2021

Reported by Joyce Lu Kuan Yee.



Wednesday, March 31<sup>st</sup>: The Annual General Meeting (AGM) of IEEE Student Branch (UMS) was held from 10:00 a.m. until 12:00 p.m. The AGM was joined by 30 IEEE members, including 2 advisors, 2 graduate student members and 26 student members.



Sharing by Chair

Carrie Dion Ong, Chair for Session 2019/2020 began the AGM with a welcoming speech. He thanked all the committees for their commitment and hardwork even during the pandermic.

# "Work hard together, we are not alone"

Khairin Kamilah Binti Mohd Al-Fitri, Secretary for Session 2019/2020 reported the activities in 2020. Throughout the year, the Student Branch had organised 1 membership workshop, 1 community event, 1 project competition, 2 technical talks and 3 industry talks. During the membership workshop, the club was able to boost the number of members from 10 in 2019 to 62 in 2020. Angelina Idalia Freddy Liew, Treasurer for Session 2019/2020, continued with the annual financial report.

Before the dissolution of the Committee Member for Section 2019/2020, Carrie shared the experience of the committee during their term. The AGM proceeded with the nomination and election of new Committee Member for Session 2020/2021. Angelina was elected as the new Chair. The newly elected Committee Members introduced themselves and thanked all the members for entrusting them.

Chair	Angelina Idalia Freddy Liew
Secretary	Abdah Nadhirah Binti Khamis
Treasurer	Norkhairunnisa Zullizawati Binti Mohd Zulkarnain
Executive Committee (Training)	Huang Qi Shen
Executive Committee (Publicity)	Joyce Lu Kuan Yee
Executive Committee (Community)	Audrey Claudia Silvester
Executive Committee (Competition)	Yap Ken Vun

**Elected Committee Members** 



**Group Photo** 

#### **FACULTY OF ENGINEERING**



Civil Engineering Students Execute Project-Based Learning (PBL) with Community Engagement on "Clean Water for Everyone - Biochar Filter."

Reported by Assoc. Prof. Ir. Dr. Nurmin Bolong & Dayang Nur Hidayati Yunus.























An official handing-over for a community project named "Clean Water for Everyone" by the Dean Faculty of Engineering (FKJ), University Malaysia Sabah (UMS), Assoc. Prof. Ts. Dr. Ismail Saad has successfully conducted at Kampung Binaung Baru, Menggatal on 28th January 2021. The project was organized by a group of final year students from Civil Engineering. Thanks to Khind Starfish Foundation through its Project of Happiness incentives has sponsored this. Mr. Goh Wang Siang has led the group and under the supervision of Assoc. Prof. Ir. Dr. Nurmin Bolong, also the course lecturer of environmental engineering. The project is one of the project-based learning activities aiming to enhance sustainable development, especially on water quality issues, by incorporating public participation. It had implemented a Biochar Water Filter system that provides the villagers with a cleaner water supply and improves the quality of gravity water used in the village. Besides, this project manages to transfer knowledge on the basic filtration system using local materials and collaborate with the villagers in operating and maintaining the treatment system.

### **FACULTY OF ENGINEERING**



Presentation/Talk/ Conference

## Sharing Session on "Online Final Examination at UPM"

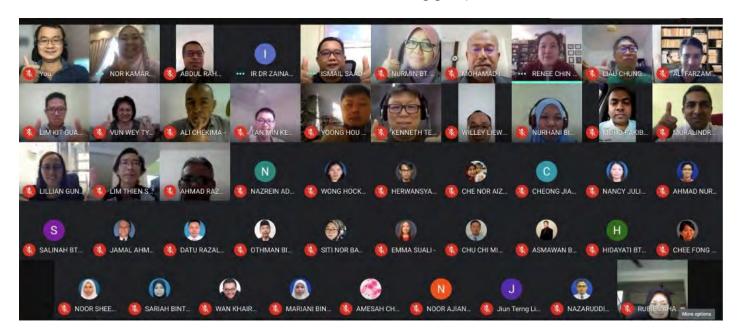
Reported by Associate Prof. Dr. Renee Chin.

The Faculty of Engineering (FKJ) organized a sharing session from Prof. Ir. Ts. Dr. Nor Kamariah Noordin, the Dean of the Faculty of Engineering at Universiti Putra Malaysia (UPM), and the current Director of the Malaysia Council of Engineering Deans (MCED). The topic of the sharing, with the title "Open-Resource Online Final Examination and Mapping of Open Ended Questions to EAC Complex Problem and Knowledge Profile Requirements" was conducted on 13th January 2021, 10 a.m. on Google Meet.

Prof. Kamariah shared on how online final examination was conducted at their Faculty, the practices that they had developed or adopted during Semester 2 Session 2019/2020. She also shared about some of the process that they found to be useful and effective, and some of the pitfalls as well. Prof. Kamariah also shared on the challenges of setting suitable questions, keeping in mind that online assessments are open-resources, and the questions also should adhere to the standards prescribed by the EAC.



The sharing session was attended by 67 lecturers from FKJ and other faculties, as well as administrative staff from the UMS Academic Services Division and e-Learning group.



Presentation/Talk/ Conference

## Webinar On Why Becoming A Civil Engineering

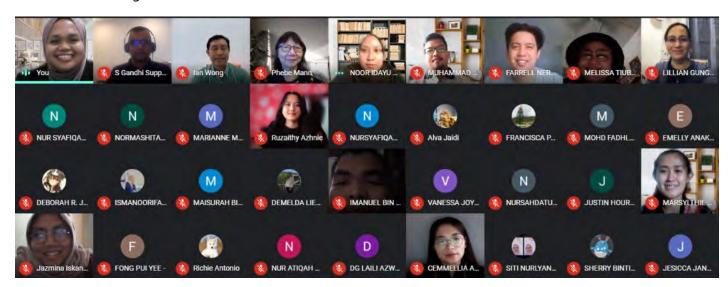
Reported by Syaza Syazvina Anwar, Noor Idayu Mohd Azmi (Civil Engineering Students).



A Webinar Session entitled "Why Become A Civil Engineer?" had been delivered by Eur Ing Dr. Phebe Mann, a Senior Vice Chair, Institution of Civil Engineers London. Eur Ing Dr. Phebe Mann is an Associate Professor in Highway and Transportation at the University of East London. She was nominated as one of the United Kingdom's Top 50 Influential Women in Engineering in 2018. As a Chartered Civil Engineer, Chartered Surveyor, European Engineer, Chartered Builder and Member of the Chartered Institute of Arbitrators, Mann is the only woman to hold five professional engineering qualifications at the same time.

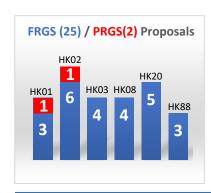
There were 43 participants of students in Foundation Science UMS and first year students of Civil Engineering Program (HKo1) joined the webinar session that scheduled on the 19<sup>th</sup> of January 2021 through Google Meet which was coordinated by the committee of Civil Engineering Club (CEC) and Head of Civil Engineering programme. The objective of this webinar session is to provide an understandable conception towards civil engineering program as a career of choice.

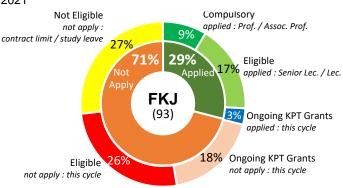
During the webinar session, there were two other presenters invited by Dr. Phebe Mann which are Ir. Gandhi Suppiah, the Chairperson of ICE Malaysia and Ir. Ian Wong, the presentative of Engineers in Sabah, shared their experiences as the civil engineers. Civil Engineering can be defined as a professional course that deals with the design, construction, and maintenance of the physical and naturally built environment, includes the public works such as highways, bridges, canals, structural components of buildings and railways. At the end of this webinar session, the students took the advantages by asking some questions to the presenters regarding the topic. This webinar session can be a yearly program under the Civil Engineering Club (CEC). The basic understanding regarding civil engineering is significant especially for the students in Foundation Science UMS, as the knowledge can be used to give them the briefing of their career as a civil engineer in the future.



## Faculty of Engineering: FRGS/PRGS 2021 Applications

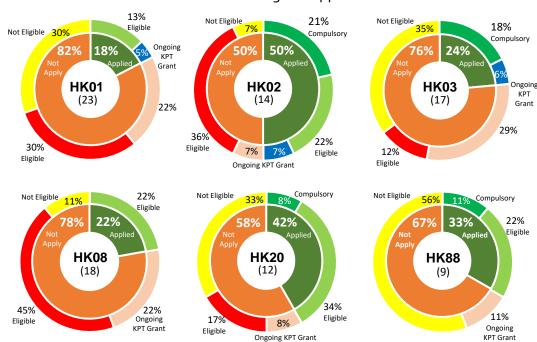
Reported by Pejabat FKJ (P&I), 28.02.2021





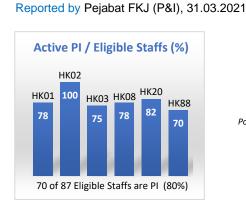
Last year, Faculty of Engineering (FKJ) had secured seven FRGS and one PRGS winning proposals from the Ministry of Higher Education (MoHE), highest among F/P/I in UMS. To improve from 2020 success rate of 25% from 28 FRGS applications, this year FKJ has initiated the moderation process at the faculty level prior to online submission at *MyGRANTS*. Our efforts included the assignation of FKJ moderators as the mentors to improve the competency of the FRGS proposals. Overwhelming with 100% applications from the eligible professors & associate professors, and other lecturers' commitment, 25 FRGS proposals in *SMPPPI* have been moderated. Workshop was conducted on 19 February 2021 with moderation of 10 sections: project title, executive summary, research background, project objectives, research methodology, expected results, track record, proposal quality, FRGS criteria and translational potential. On 5 March 2021, a further briefing and sharing session among FKJ moderators for *MyGRANTS* evaluation has been conducted.

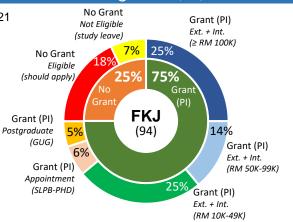
Performance indicators of 2021 FKJ MoHE grant applications are:



30

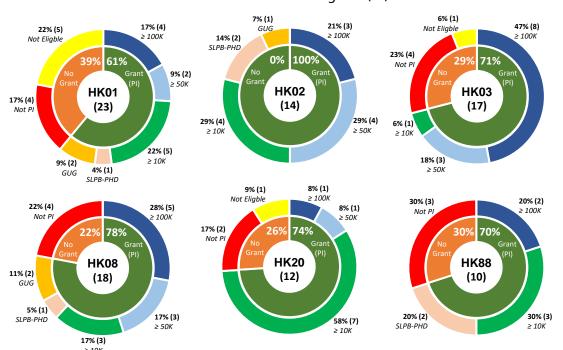
## Faculty of Engineering: 2020-2021 Active Grant as Principal Investigator (PI)





Faculty of Engineering (FKJ) had recorded 148 active grants, total amount of RM 9,147,659.32 in 2020-2021 with external and internal funding from ministry, university and industry, among the most active F/P/I in UMS. The breakdown of the total funding can be split into 4 categories, External Funding: 1. Government and Agency (28 projects of RM 5,150,529.32, 56.3% of total); 2. Industry (2 projects of RM 71,600.00, 0.8% of total) and Internal Funding: 3. UMS Research & Innovation (87 projects of RM 3,497,530.00, 38.2% of total); 4. UMS Postgraduate (37 projects of RM 428,000.00, 4.7% of total). 80% of the eligible researchers has at least one project funding as principal investigator (PI), beside those newly joined as lecturers and those just returned from further study. To improve the performance of projects' progress and milestones achievement, FKJ has initiated grant monitoring process (based on SMPPPI data and feedback from researchers) prior to reporting at UMS management on 12 March 2021 and 26 March 2021 – 9 April 2021.

Performance indicators of 2020-2021 FKJ active grant (PI) are:



#### Scoreboard

2020-2021 Active Funding

#### Top Total Funding Program

- 1. RM 4,255,305.32 (31 funds), HK03
- 2. RM 1,381,020.00 (27 funds), HK08
- 3. RM 1,319,500.00 (28 funds), HK01
- 4. RM 1,312,760.00 (38 funds), HK02
- 5. RM 475,600.00 (10 funds), HK88
- 6. RM 403,474.00 (14 funds), HK20

#### Top Average Funding Program

- 1. RM 265,956.58 (16 staffs), HK03
- 2. RM 93,768.57 (14 staffs), HK02
- 3. RM 76,723.33 (18 staffs), HK08
- 4. RM 73,305.56 (18 staffs), HK01
- 5. RM 47,560.00 (10 staffs), HK88
- 6. RM 36,679.45 (11 staffs), HK20

### Top Total Funding Individual

- 1. RM 2,347,540.32
- Prof. Dr. Coswald S. Sipaut @ Mohd Nasri 2. RM 522,800.00
- AP. Dr. Kenneth Teo Tze Kin
- 3. RM 500,000.00
- Prof. Ir. Dr. Abdul Karim Bin Mirasa
- 4. RM 399,700.00
- AP. Dr. Jidon @ Adrian Bin Janaun
- 5. RM 390,100.00
- AP. Dr. Abu Zahrim Bin Yaser

#### Top Project Funding Individual

- 1. RM 2,347,540.32, MyLAB0001-2019 Prof. Dr. Coswald S. Sipaut @ Mohd Nasri
- 2. RM 500,000.00, LRGS0008-2017
- Prof. Ir. Dr. Abdul Karim Bin Mirasa
- 3. RM 186,200.00, LPK2001-2020 AP. Dr. Jidon @ Adrian Bin Janaun
- 4. RM 158,000.00, PRGS0012-2020
- AP Dr Kenneth Teo Tre Kin
- 5. RM 150,900.00, PRGS0011-2019
- Prof. Ir. Dr. Rosalam Hj. Sarbatly

#### Top UMS Funding Individual

- 1. RM 150,000.00, SDK0121-2019
- Ir Dr Mohd Azlan Bin Ismail
- 2. RM 141,800.00, SPB0001-2020 AP. Dr. Abu Zahrim Bin Yaser
- 3. RM 139,320.00, DN21095-2021
- Dr. Mohd. Kamel Wan Ibrahim
- 4. RM 133,500.00, SDK0087-2019 AP. Dr. Jidon @ Adrian Bin Janaun
- 5. RM 120,000.00, SDK0321-2021
- AP. Dr. Nancy Julius Siambun

#### Top Industry-Driven Funding Individual

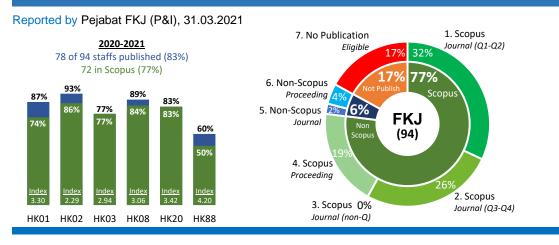
- 1. RM 60,000.00, IK210001-2021
- AP. Dr. Jidon @ Adrian Bin Janaun
- 2. RM 50,000.00, GLS0031-2019 Dr. Mohd Kamal Mohd Shah
- 3. RM 50,000.00, PRN0001-2019
- Ir. Ts. Mohd Amran Bin Madlan
- 4. RM 21,600.00, LPS2101-2021

#### Ts. Dr. Lillian @ Lilia Gungat

#### Top Postgraduate Funding Individual

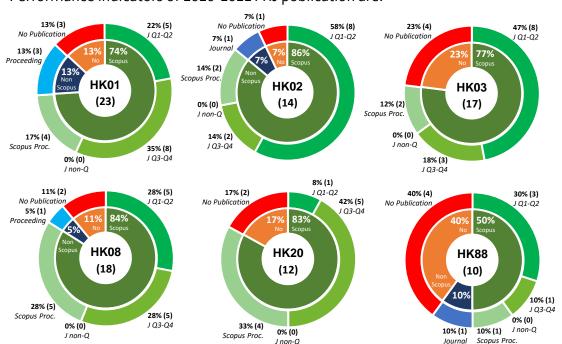
- 1. RM 20,000.00, GUG0384-2/2019
- 2. RM 20,000.00, GUG0394-2/2019
- 3. RM 20,000.00, GUG0397-2/2019
- 4. RM 20.000.00, GUG0453-1/2020
- 5. RM 20,000.00, GUG0496-1/2020
- 6. RM 20,000.00, GUG0535-1/2020

## Faculty of Engineering: 2020-2021 Scopus Indexed Publication & Researcher Profile



Faculty of Engineering (FKJ) had recorded 132 Scopus publication in 2020 with 71 Journals, 11 Chapters, and 50 Proceedings. At the end of March 2021, 72 of 94 active staffs (77%) including those in study leaves have published at Scopus for the year of 2020-2021. Another 6 staffs (6%) contributed at non-Scopus indexed publication. The breakdown of the publication status can be split into 7 categories: 1. Scopus Journal Q1-Q2, 2. Scopus Journal Q3-Q4, 3. Scopus Journal non-Q, 4. Scopus Proceeding, 5. Non-Scopus Journal, 6. Non-Scopus Proceeding, 7. No Publication; where the performance metric of each program (index) are presented in the histogram. To improve the contribution of FKJ to UMS KRA and MyRA, FKJ has adopted the KPI set by UMS with Scopus indexed article for VK7 (x4), DS54-53 (x3), DS52-51-45 (x2), and Scopus indexed proceeding for all staffs (x1). The achievement of FKJ publication are summarised and analysed prior to reporting at UMS management on 12 March 2021 and MyRA audit on 7 April 2021.

Performance indicators of 2020-2021 FKJ publication are:



#### Scoreboard

2020-2021 Scopus Performance

#### Top Average h-index Program

- 1. 8.2 (17 staffs), HK03
- 2. 6.7 (14 staffs), HK02
- 3. 5.8 (12 staffs), HK20
- 4. 4.8 (18 staffs), HK08
- 5. 4.2 (10 staffs), HK88
- 6. 2.5 (23 staffs), HK01

#### Top Average Documents Program

- 1. 48.9 (14 staffs), HK02
- 2. 29.9 (17 staffs), HK03
- 3. 28.5 (12 staffs), HK20
- 4. 19.6 (18 staffs), HK08
- 5. 11.6 (10 staffs), HK88
- 6. 11.0 (23 staffs), HK01

#### Top Average Citations Program

- 1. 447.2 (17 staffs), HK03
- 2. 213.8 (14 staffs), HK02
- 3. **174.4** (18 staffs), HK08
- 4. 120.5 (12 staffs), HK20
- 5. 110.2 (10 staffs), HK88
- 6. 61.8 (23 staffs), HK01

#### Top h-index Individual

- 1. 20 Prof. Dr. Coswald S. Sipaut @ Mohd Nasri
- 2. 17 Prof. Dr. Seock-Sam Kim
- 17 AP. Dr. Kenneth Teo Tze Kin
- 4. 15 Prof. Ir. Dr. Rosalam Hj. Sarbatly
- 5. 14 Prof. Dr. Willey Liew Yun Hsien

#### Top Documents Individual

- 1. 142 AP. Ts. Dr. Ismail Saad
- 2. 141 AP. Dr. Kenneth Teo Tze Kin
- 3. 81 Prof. Dr. Seock-Sam Kim
- 4. 75 Prof. Dr. Ali Chekima
- 5. 74 Prof. Dr. Coswald S. Sipaut @ Mohd Nasri

#### Top Citations Individual

- 1. 2005 Prof. Ir. Dr. Rosalam Hj. Sarbatly
- 2. 1627 Prof. Dr. Coswald S. Sipaut @ Mohd Nasri
- 3. 996 Prof. Dr. Seock-Sam Kim
- 4. 974 AP. Dr. Kenneth Teo Tze Kin
- 5. 953 AP. Ir. Dr. Nurmin Bt. Bolong

#### Top Citations per Paper Individual

- 1. 685 AP. Ir. Dr. Nurmin Bt. Bolong
- 2. 557 Prof. Ir. Dr. Rosalam Hj. Sarbatly
- 3. 366 AP. Dr. Jidon @ Adrian Bin Janaun
- 4. 254 Dr. Emma Suali
- Prof. Ir. Dr. Rosalam Hj. Sarbatly
- 5. 214 Ir. Dr. Sariah Abang

#### Top Corresponding Author Individual

- 1. 30 AP. Ts. Dr. Ismail Saad
- 2. 24 AP. Dr. Abu Zahrim Bin Yaser
- 24 Dr. S.M. Anisuzzaman
- 4. 17 AP. Dr. Iidon @ Adrian Bin Ianaun
- 5. 16 AP. Ir. Dr. Nurmin Bt. Bolong

#### **FACULTY OF ENGINEERING**



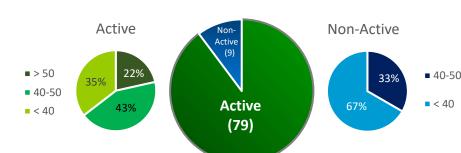
## Faculty of Engineering: MYRA 2020

Reported by Pejabat FKJ (P&I), 31.03.2021

UMS *MyRA* workshops have been conducted in 20 February and 18-19, 24 March 2021 prior to the auditing on 7-14 April 2021. For 2020, *MyRA* FKJ is evaluated based on 79 active academic staffs (at least six months in service) to evaluate the research performances of FKJ. Referring to the research and innovation data collected, FKJ is predicted to achieve 4 Stars for *MYRA* 2020 as compared to 3 Stars in *MyRA* 2019. With the strength possessed by FKJ, the faculty managed to perform 5 stars in two of the six sections.

Performance indicators of MYRA 2020 by sections are given as follows:

#### **FKJ Academic Staff**





MYRA 2019



## Section B: ★★★★

Quantity and Quality of Researchers

- Principal Investigators
- Professional Qualification
- Research Experience (3 cohorts)
- Awards and Recognition



## Section C: ★★★

Quantity and Quality of Research

- **Publications**
- Research Grant Funding
- Monitoring of Research Project Progress



## Section D:

Quantity and Quality of Postgraduates

- Postgraduate Enrollment and Graduation
- International Postgraduate
- Entry Qualification Level of Postgraduate
- Postgraduate Fellowships and Grants
- Postdoctoral Appointment





- Innovation
   Patents
- Commercialized Products
- Technology Licensing / Sold Outright
- Other IPRs



### Section F:

**Professional Services and Gifts** 

- Conferences and Knowledge Sharing
- Consultancies
- Endowment
- Gifts



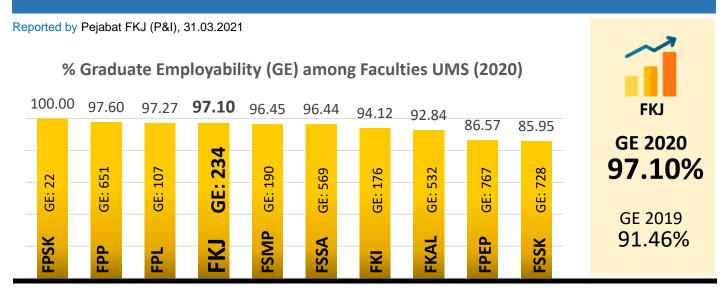
## Section G:

Networking and Linkages

- MoA and MoU
- Staff Sent Abroad for Research Activities
- Professional Membership
- Knowledge Transfer
- Inter-Institution Joint Project



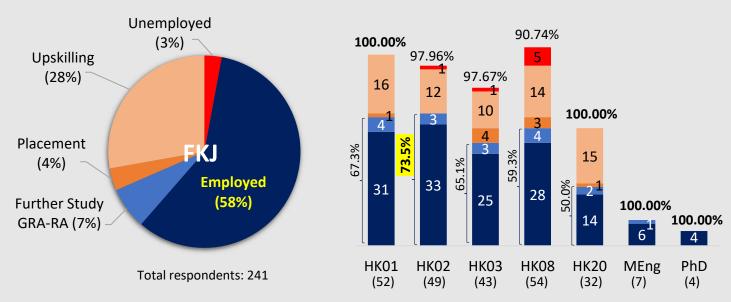
## FKJ 2020 Graduate Employability Report



Thanks to the tireless efforts of all FKJ citizen, our graduates achieved **97.10% Graduate Employability (GE)** in year 2020, including the graduates who are employed, pursuing study, upskilling and waiting for placement. At the faculty level, HK01 and HK20 had successfully achieved **100% GE** whereas HK02 has the highest total graduates, **73.5%** that received permanent employment and further studies.

The Dean of FKJ, Assoc. Prof. Ts. Dr. Ismail Saad congratulates the member of the faculty who helped to enhance the GE in both faculty and the university level. Quoted from our Dean, "(It is) Our strive to bring our graduates close to the job market from the beginning (at the early stage of study) by involving industries and alumni participation in their learning experience".

### % Graduate Employability (GE) among Programs FKJ (2020)





## Collaboration Between Oil & Gas Programme, FKJ & Sabah Maju Jaya Group

Reported by Ts. Dr. Norzilawati Mohamad.

On 20<sup>th</sup> March 2021, a new collaboration between Sabah Maju Jaya Group and UMS (Oil and Gas Program) was formed in order to fill up the Human Capital cluster. The main purpose of this collaboration is to enhance the human capital specifically in Oil and Gas industry in Sabah. The discussion was attended by representative from each parties. Sabah Maju Jaya Group shows an interest to collaborate with UMS especially Oil and Gas Program to fill the Human Capital cluster announce by the government. A formal meeting was held among the Sabah Maju Jaya Group and UMS representatives discussing on the direction of Oil and Gas industry in Sabah besides, offering competency training to the state. The Sabah government will also help to obtain recognition status. The program is still in its early stages and further discussions will continue from time to time.





Official website: https://sabah.ieeemy.org/

### IEEE SABAH SUBSECTION: Annual General Meeting (AGM) 2021 Report

Reported by IEEE Sabah Subsection, 31.03.2021

### Former Chair: "Bitter Yet Sweet" experience on IEEE Sabah Subsection. All members are motivated to take up challenges to excel in subsection activities.

IEEE is the world's largest professional association advancing innovation and technological excellence for the benefit of humanity. IEEE inspires a global community to innovate for a better tomorrow through its more than 396,000 members in over 160 countries.

Amid pandemic, IEEE Sabah Subsection wrapped up year 2020 with increment from 10 to 62 student members and bringing in 2 industrial PEng to become IEEE members.



The 4<sup>th</sup> Annual General Meeting (AGM) of IEEE Sabah Subsection held on January 30 (10:00 a.m. - 12:00 p.m.) was attended by 40 IEEE registered members (Life Senior Member, Senior Member, Member, Graduate Student Members and Student Member). Following the handover and dissolution of Executive Committee 2019 – 2020, new Executive Committee for term 2021 – 2022 has been elected to continue sharing and bringing benefits to the members and the community.

#### **ACTIVITIES 2020**

Total Members: 106 | Total Activities: 16



IR4.0 Public Lecture Series 2020 - IR4.0 & Smart Healthcare

MATLAB for Teaching and Learning
Talk: Introduction to Machine Vision with Python
The 2nd IEEE International Conference On Artificial
Intelligence in Engineering And Technology (IICAIET 2020)
Talk: The New Normal - How Technology can Mitigate the Negative Effects of Covid-19



Robocon Junior Workshop & Competition (Sabah Zone) IEEE-UMS EEE Project Exhibition

Integrated Design Project Competition

Final Year Project Poster Presentation Industry Advisory Panel (IAP) Meeting: Forum Students Career Insight 2020



IEEE Membership Talk @ UMS Faculty of Medicine and Health Science (FPSK)

IEEE Membership Talk @ UMS Faculty of Computing and Informatics (FKI) IEEE Members Registration Day

Talk: Standards for Electrical Engineers
Talk: Opportunities and Challenges of Electrical & Electronic Engineering in Industry (IR4.0)

#### Outgoing Executive Committee (2019–2020)

Chair : A.P. Ts. Dr. Ismail Saad

Vice Chair : A.P. Ir. Dr. Muralindran Mariappan

Secretary : Dr. Leau Yu Beng : Dr. Yew Hoe Tung Treasurer ExCom (Professional) : A.P. Dr. Kashif Nisar ExCom (Students) : Dr. Kenneth Teo Tze Kin ExCom (Education) : Dr. Renee Chin Ka Yin ExCom (Community) : Dr. Razak Mohd Ali Lee ExCom (Publicity) : Dr. Tan Soo Fun

Auditor : A.P. Ts. Dr. Mohd. Hanafi Ahmad Hijazi

Auditor : Dr. Rosalyn R. Porle

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Past Chair : A.P. Ts. Dr. Ismail Saad Chair : A.P. Dr. Kenneth Teo Tze Kin

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ExCom (Community) : Dr. Aroland M'Conie Jilui Kiring

ExCom (Publicity) : Dr. Tan Soo Fun

: A.P. Ts. Dr. Mohd. Hanafi Ahmad Hijazi Auditor

Auditor : Dr. Leau Yu Beng































Thank you A.P. Ir. Dr. Muralindran, Dr. Yew and Dr. Razak for their contribution throughout the term.

Welcome Dr. Lim, Dr. Tan and Dr. Aroland to the ExCom of IEEE Sabah Subsection.

#### **ACTIVITIES 2021**

- The 3rd IEEE international Conference on Artificial Intelligence in Engineering and Technology (IICAIET 2021)
- The 19th IEEE Student Conference on Research and Development (SCOReD 2021)
- IEEE-UMS Final Year Project and Integrated Design Project Competition (IDP 2021)

### **FACULTY OF ENGINEERING**



### FKJ New "Surau Al Khawarizmi"

Reported by Ir. Ts. Mohd. Adzrie Radzali.



The Faculty of Engineering (FKJ), Universiti Malaysia Sabah (UMS) has renovated one of the laboratory located at a lower ground Block C of its building to become the new 'surau' for the faculty. The main reason for the faculty to have a new surau was because the existing surau was small either for students or for the staff. The new surau named 'Surau Al-Khawarizmi' has a very large area and could cater around 50-100 people at one time.

The application for renovation was sent to Jabatan Pembangunan dan Penyelenggaraan (JPP), UMS and was approved with a significant amount of budget from Jabatan Bendahari UMS. The interior of the new surau was designed by JPP after few discussion between the faculty and JPP. The representative for Pejabat Mufti Negeri Sabah has been involved in determining the direction of the giblat.

The renovation work started 20<sup>th</sup> January 2021 and the targeted date for the project to be completed is on 13<sup>th</sup> April 2021. Fortunately, the appointed contractor has sped up the renovation work and the new surau is nearly ready to be used. The new surau will enable the students and staffs to perform prayer in a very comfort condition.





#### **FACULTY OF ENGINEERING**



### Duo Female Bike Packing Adventure

Reported by Noor Aemi Dawalih & Nur Amalina G. Abdullah.

On 27<sup>th</sup> March 2021, starting from Gayang Bridge, the bikepacking duo; Noor Aemi Dawalih (FKJ, Technical Support Staff) and Nur Amalina G. Abdullah set onwards through the famous "Bukit Kelawat" heading to Kota Belud town. A short transit at Restaurant Pesona Rasa refilled the hunger and provide as a venue for resting after riding for 6 hours. Then, the journey continues to Eco Tourism Tomodu Paradise a peaceful campsite located in "Kampung Tambulion" that immediately feels like home with the quietness and tranquil ambience.

The next morning (28<sup>th</sup> of March) the adventure to "Kampung Sangkir" begins, known as the famous hot spot for majestic view of mount Kinabalu and vast paddy field. After took a worthy photo the journey continue to Nohutu Eco Tourism Kg. Melangkap Tiong with transit to Kota Belud town and passing through a series of beautiful town such as Taginambur and Narinang. To note, Kg. Narinang regarded as the iconic ride due to the sensation of extreme gravity pulling backwards even though the road ahead is flat. Upon arrival at dusk, the host provide hot noodle soup which becomes a remedy of 8 hours ride.









On the final day (29<sup>th</sup> March) recorded a most pleasant ride because the load reduced as food supplies has been consumed and the route is generally going downhill. The ride took 9 hours covering 77 kilometers. It was an eventful trip as it serves a wonderful experience of backpacking that connects with the local people of Kota Belud town plus the amazing views of idyllic Sabah. Special message to everyone out there especially women on bikes "Jangan Berhenti Bermimpi dan Berlari".

### **FACULTY OF ENGINEERING**



### Congratulations & Birthday Wishes From FKJ



## Setinggi-tinggi tahniah



Ir. Dr. Mohd Azlan Ismail
Diatas kejayaan dianugerahkan sebagai
Jurutera Profesional (PE)
Reg. No: P121568
Discipline: Mechanical



Dr. Emma Suali Diatas pelantikan sebagai Ketua Program Kejuruteraan Minyak & Gas (HK88) Berkuatkuasa 01 April 2021



Ir. Ts. Dr. Melvin Gan Jet Hong Diatas kejayaan dianugerahkan sebagai Jurutera Profesional (PE) Reg. No: P121583 Discipline: Mechanical

ikhlar daripada : Dekan & Warga Fakulti Kejuruteraan



### Tahniah

### Kenaikan Pangkat Ke Jawatan Profesor Madya



Profesor Madya Dr. Renee Chin Ka Yin Program Kejuruteraan Elektronik (Komputer)



Profesor Madya
Dr. Kenneth Teo Tze Kin
Timbalan Dekan
(Penyelidikan & Inovasi,
Fakulti kejuruteraan)
/Program Kejuruteraan
Elektrik & Elektronik



Profesor Madya Ts. Dr. Nancy Julius Siambun Program Kejuruteraan Mekanikal

Ikhlas Paripada : Seluruh Warga Fakulti Kejuruteraan















## Setinggi-tinggi Tahniah

Dr. Mohd Suffian Bin Mirasan @ Misran

ATAS PERLANTIKAN TIMBALAN DEKAN (AKADEMIK & HAL EHWAL PELAJAR)

FAKULTI KEJURUTERAAN UNIVERSITI MALAYSIA SABAH

BERKUATKUASA 01 FEBRUARI 2021 – 31 JANUARI 2023

Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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## Setinggi-tinggi Tahniah

Dr. Kenneth Teo Tze Kin

ATAS PERLANTIKAN TIMBALAN DEKAN (PENYELIDIKAN & INOVASI)

FAKULTI KEJURUTERAAN UNIVERSITI MALAYSIA SABAH

BERKUATKUASA 01 FEBRUARI 2021 - 31 JANUARI 2023

Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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## Setinggi-tinggi Tahniah

Dr. Mohd Azizul Bin Ladin

ATAS PERLANTIKAN TIMBALAN DEKAN (HAL EHWAL PELAJAR & ALUMNI)

FAKULTI KEJURUTERAAN UNIVERSITI MALAYSIA SABAH

BERKUATKUASA 15 APRIL 2021 - 14 APRIL 2023

Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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Prof. Ir. Dr. Zainal Zakaria

ATAS PERLANTIKAN SEBAGAI

PENGARAH
PUSAT JAMINAN KUALITI
UNIVERSITI MALAYSIA SABAH

TARIKH LANTIKAN 01 FEBRUARI 2021 SEHINGGA 31 JANUARI 2023

Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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## Setinggi-tinggi Tahniah

Prof. Madya Dr. Jidon @ Adrian Janaun

ATAS PERLANTIKAN SEBAGAI

PENGARAH
PUSAT PENGURUSAN INOVASI & PENGKOMERSILAN
UNIVERSITI MALAYSIA SABAH

TARIKH LANTIKAN 01 APRIL 2021 SEHINGGA 31 MAC 2023

Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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## Setinggi-tinggi Tahniah

Ir. Dr. Chua Bih Lii

DI ATAS PERLANTIKAN SEBAGAI

KETUA PROGRAM
KEJURUTERAAN MEKANIKAL
FAKULTI KEJURUTERAAN

BERKUATKUASA 20 JANUARI 2021 - 19 JANUARI 2023

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## Setinggi-tinggi Tahniah

Dr. Yoong Hou Pin

DI ATAS PERLANTIKAN SEBAGAI

KETUA PROGRAM
KEJURUTERAAN ELEKTRIKAL & ELEKTRONIK
FAKULTI KEJURUTERAAN

BERKUATKUASA 01 MAC 2021 – 18 FEBRUARI 2023

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## Setinggi-tinggi Tahniah

Dr. Noor Sheena Herayani Binti Harith

DI ATAS PERLANTIKAN

PENYELARAS
PROGRAM MOBILITY & PELAJAR ANTARABANGSA
FAKULTI KEJURUTERAAN

BERKUATKUASA 01 JANUARI 2021 - 31 JANUARI 2022

Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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## Setinggi-tinggi Tahniah



Nama: Dr. Aroland Kiring Jawatan: Pengurus WEB Tarikh Kuatkuasa: 01 Feb. 2021-31 Jan. 2023



Nama: Encik Damme Bin Daim Jawatan: Penolong Pengurus WEB Tarikh Kuatkuasa:

01 Feb. 2021 sehingga 31 Jan. 2023



Nama: Dr. Tan Min Keng Jawatan: Penolong Pengurus WEB Tarikh Kuatkuasa: 01 Feb. 2021- 31 Jan. 2023

#### Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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## Setinggi-tinggi Tahniah

Puan Amesah Chungan

DI ATAS KENAIKAN PANGKAT KE JAWATAN

PEMBANTU TADBIR KANAN

Tarikh Kuatkuasa: 02 Mac 2021

Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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#### **FACULTY OF ENGINEERING**













## Setinggi-tinggi Perhargaan



Prof. Madya Dr. Manas Kumar Haldar Kejuruteraan Elektronik (Komputer) Tempoh Perkhidmatan: 03 Jan. 2017 - 02 Jan. 2021



Prof. Dr. Nader Nasif Barsoum Kejuruteraan Elektronik (Komputer) Tempoh Perkhidmatan: 02 Jan. 2013 - 01 Jan. 2021

Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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## Selamat Datang Kakitangan Baharu



Nama:

Dr. Helen Chuo Sin Ee

Program:

Kejuruteraan Minyak & Gas

Tarikh Lapor diri:

12 Mac 2021

Daripada: Dekan, Pengurusan & Warga Fakulti Kejuruteraan, UMS



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# For all those born from January to March, we wish you a Happy Birthday and many happy returns.

ABDUL HATAF YAZED ADZ SUFFIAN

AFIZAN BIN ABDULLAH

AHMAD RAZANI BIN HARON

ASMAWAN BIN MOHD SARMAN

AZMI BIN JUMAT

**CHEN MOI FONG** 

CHIAM CHEL KEN

DANNY SUZAIRIE BIN MOHAMAD

HAZWAN HORACE @ SETOR

**JAMILA GUMU** 

**JUMARDIE BIN LUKMAN** 

KENNETH TEO TZE KIN

LIAU CHUNG FAN

LILLIAN @ LILIA GUNGAT

LIM KIT GUAN

MARIANI BINTI RAJIN

MOHAMAD IBRAHIM BIN MOHAMAD

MOHD ADZRIE HJ RADZALI

MOHD AMRAN BIN MADLAN

NANCY JULIUS SIAMBUN

NORZILAWATI BTE MOHAMAD

NURUL SHAHADAHTUL AFIZAH BT. ASMAN

RIZ FAIZAL @ MOHD. FAIZAL BIN AHMAD

**ROZALITA JANI** 

S.M. ANISSUZAMAN

SARIAH ABANG

SAVERIN @ SAYERINE BINTI VUN SANG

SHAHRANI BIN JUHARI

SITI JAHARA BINTI MATLAN

SUNDERAESWARAN NAYAR @ A. SUNDERAN NAYAR

THANI @ SHANI SALEHUDIN

WAN KHAIRUL MUZAMMIL BIN ABD RAHIM

WILLEY LIEW YUN HSIEN





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