FOREWORD FROM DEAN

In the name of Allah, Most Gracious, Most Merciful. Salaam & salam to our prophet Muhammad SAW. 2018 was a time full of significant achievements as well as challenges and opportunities. We experienced continuous achievements in research and development, academic activities and industrial engagement. They were in the forms of research projects established, as well as medals received by our researchers and students. For that, I am grateful to Allah that this Faculty has been blessed with a group of proactive and dedicated staff. For 2019, I look forward to receive continuous support to achieve excellence in all areas.

PROF. ZULKAFI BIN HASSAN
DEAN OF FKKSA

EDITORIAL BOARD

Advisor: Prof. Zulkafli bin Hassan,
Chief Editor: Dr. Rohana Abu
Editorial Committee:
Dr. Khairatun Najwa Mohd Amin
Dr. Nor Hanimah Hamidi
Dr. Siti Hajar Noor Shaarani
Miss Zainatul Bahiyah Handani

Inside this issue:
Achievements—Staff 2
Industrial Engagement 3
Academic Activities 6
Research Activities 10
Achievements—Students 13
Student Activities 14
Community Services 15

Sustainable Technological Solutions for Industry & Society – ICCEIB2018

From left: Professor Dr. Jamil Ismail (Assistant Vice Chancellor (Industrial and Community Relations)), Prof. Dato’ Sri Ts. Dr. Daing Mohd Nasir Bin Ibrahim (Vice Chancellor of UMP), Dr. Sven Crone (Managing Director of BASF PETRONAS Chemicals Sdn. Bhd.) and Mr. Zairul Alwi, Human Resource Management Director of BASF PETRONAS Chemicals Sdn. Bhd.

MoU Strengthen Ties Between FKKSA—BASF PETRONAS Chemicals

Pekan, 18th December 2018 - Universiti Malaysia Pahang (UMP) signed a Memorandum of Understanding (MoU) with BASF PETRONAS Chemicals Sdn. Bhd. at UMP Pekan campus. The MoU aims to mark a concrete joint collaboration that call for constant and sustainable engagement by both parties. Rejuvenation of the strategic linkage between UMP and BASF PETRONAS Chemicals Sdn. Bhd. was initiated by German Initiative Team of Faculty of Chemical & Natural Resources Engineering (FKKSA).

The seven main areas agreed in the MoU were talent sourcing for BASF PETRONAS Chemicals own GROW programme and other permanent placements, academic development programme, industry excellence award sponsorship programme, industrial placement training for staff and student, leadership and professional development programme, sharing of expertise in research and facilities, corporate social responsibility and sustainability related initiatives.

Resource Dynamic, Innovative and Excellence
ACHIEVEMENTS – STAFF

**Best Award at British Invention Show 2018**

On 24-27th October 2018 the British Invention Show was held in London. Assoc. Prof. Dr. Sumaiya Zainal Abidin @ Murad for winning the Diamond Award & Obelisk Award (Best of the Best Award for International) in British Invention Show 2018, London. The title of the project is “A Technology for Efficient Extraction of Rare Earth Metals Using Seir”.

**Associate Professor Dr. Cheng Received Top Peer Review Award**

On 25th October 2018, the Department of Higher Education, Ministry of Higher Education organized the MRSA (Malaysia’s Research Star Award) and the 2018 CREAM Journal of Current Research in Malaysia. UMP recorded history for the first time when a UMP lecturer, Associate Professor Dr. Cheng Chin Kui received the Top Peer Reviewer Award in the Physics Science category.

**Dr. Rosmawati Naim Received Recognition from Malaysia Energy Professional for the Establishment of EI-UMP Student Chapter**

**Gold Medal at iENA 2018 Germany**

The International Trade Fair for Inventions 2018 was held on 1st-4th November 2018 in Nuremberg, Germany. The team led by Dr. Jun Haslinda Sharifuddin received gold medal with the title of research is “Recovering from value waste: Development of bioscaffold from cockle shell for dental biomaterial”. The other researchers involved in the project are Dr. Noor Ida Amalina, Dr. Siti Hajar Saharudin, Dr. Ina Sumiarti, Dr. Zamri Radzi, and Dr. Noor Azlin Yahya.

**Excellent Service Award (APC) 2018**

Congratulations! From left: Dr Ruzinah Isha, Dr Siti Khalijah Abdul Mudalip, Dr Norashikin Mat Zain, Dr Syarifah Abid Rahim, Dr Herma Dina Setiabudi, Assoc. Prof. Dr Chin Sim Yee, Mr. Mohd Najib Razali. Not in the picture: Dr Khairurat Najwa Mohd Amin, Dr Nasrurut Masngut, Dr Noor Ida Amalina Ahmad Nor-din, Madam Normadinah Kamarudin, Madam Hafizah Ramli. Congratulations also to Dr Noormazlinah Ahmad for a special award of Anugerah Kerjasama Industri.
**INDUSTRIAL ENGAGEMENT**

**FKKSA—Cenergy Sea Tie-up for Mutual Benefits**

3rd July 2018 – A delegation from Cenergy Sea Sdn. Bhd. comprised En. Shamsuddin Sulaiman, Manager of regional operations, Ir. Bernard R. Simon, Head of New Ventures, Mohamad Saiful Mohd Yusup, Asset Manager, and their subordinates have visited FKKSA for round table meeting and facilities visit. Dean of FKKSA, Prof. Zulkafli Hassan welcomed the team to FKKSA. In his welcoming remarks, FKKSA Dean has stressed on the importance of university-industry linkage specifically FKKSA-Cenergy Sea tie-up for mutual benefits. Among the points being discussed are (i) academic staff attachment for professional development, (ii) internship and also (iii) project-based technical and consultation services. At the centre of discussion was the biogas facility in Pekan, Pahang. In their final itinerary, the team was brought to FKKSA lab to tour the on-site facilities that FKKSA could offer for the collaboration. FKKSA is planning to visit Cenergy Sea Sdn. Bhd. in the near future to boost the working relationship between both parties.

**One-day Collaborative visit by FKKSA, UMP to Advanced Technology Training Centre (ADTEC), Jerantut**

A delegation of 5 lecturers and 4 final year students from FKKSA visited ADTEC Jerantut on 7th August 2018 as part of academic and research collaboration initiative between both institutions. The visit started in the morning session with a progress meeting chaired by ADTEC Jerantut’s Director, Puan Hajah Zuraini Binti Muda on an ongoing collaborative research project between FKKSA and ADTEC involving development of improved durability and low cost Solid Ankle-Cushion Heel (SACH) prosthetic foot.

The main highlight of the meeting was to align the team via updates on progress, challenges, and the project’s next course of action. FKKSA’s delegation head, Ts Dr. Azizan Ramli and final year student, Mr. Ajmal Syahir Bin Abu Talib had presented research progress of UMP’s team, while Mr. Azuan Failani Bin Ariffin from ADTEC Jerantut Polymer Department presented the progress from ADTEC’s team. The meeting had been extremely beneficial and fruitful as both teams managed to share their experience, knowledge, new ideas and lesson learned throughout the collaborative project.

The afternoon session resume with a split parallel session, where Ir. Dr. Mohd Bijarimi Mat Piah and Dr. Mohd Shaiful Zaidi Mat Desa conducted a short workshop on lifelong learning for ADTEC Jerantut academic staff, while Dr. Azizan, Dr. Mohd Faizal Ali, and Ts Mohd Zulkifli Mohd Noor engaged in a career prospect and motivational talk with ADTEC students. This talk was attended by around 200 students and was also joined by several ADTEC’s administrators and technical staff. The slot by Dr Mohd Faizal and Ts Mohd Zulkifli focuses more on experience sharing and career options after they finished their study. Dr Azizan concluded the afternoon session with an interesting motivational talk on the importance of lifelong learning in the current industrial setting.

The one-day visit has been a very meaningful event to strengthen ties between academic staff and students from both institutions. It is with high anticipation that this collaborative effort between FKKSA, UMP and ADTEC Jerantut will bear witness as an exemplary symbiotic model between academia and technical institution, which is in line with the aspiration of Malaysian government to empower TVeT education.

Official handover ceremony of the joint MoU on Solid Ankle Cushion Heel (SACH) Project between FKKSA and Manpower Department, Ministry of Human Resource on 12th Nov 2018.

Exchange speaker talk (Right) and Dr. Siti Kholijah Abdul Mudalip promoting part-time courses offered by FKKSA at BASF Petronas Chemicals Sdn. Bhd on 5th December 2018(left).

Meeting with Department of Mineral and Geoscience Malaysia (JMG) to establish the steering committee on 14th September 2018.

Visit and Discussion at Perbadanan Menteri Besar Kelantan on 22nd November 2018.
INDUSTRIAL ENGAGEMENT

Prof. Dr. Zulkifli Yaacob (Middle) as the invited speaker and the panel discussion for the 4th Symposium on Human Capital Development for the Mineral Resource Sector at Universiti Kebangsaan Malaysia on 22nd October 2018.

Visit & Research discussion at Ain Medicare Sdn. Bhd. on 31st October 2018.

Industrial visit for MSc. in Mining with Mineral Technology at Myna Mines Sdn. Bhd. on 22nd September 2018.


Training on Mercury Spill Kit by Dr. Abdul Aziz Mohd Azoddein at Ain Medicare Sdn. Bhd.

Plan visit by students’ OSH in Chemical Industries to Lynas Advanced Material Plant on 14th November 2018.
16th November 2018 — A talk on ‘Keys to Become A Successful Engineer’ was delivered successfully by Karl Kolmetz, Managing Director of KLM Technology Texas at Dewan Tun Fatimah. FKKSA academic staff and students took opportunity to join the sharing session. Currently, he is involves in teaching a subject ‘Chemical Process Design & Equipment’ for Master programme, MSc. Process Plant Operation, offered by FKKSA.

Industrial Lecture By BASF Petronas Chemicals Sdn. Bhd.

21st November 2018 — Special Industrial Lecture on “Common Technical issues in separation Units & Ensuring Effective Heat Transfer” for Unit Operation & Heat Transfer classes. The lecture was delivered by Mr. Rusdi Mohd Din (Manager of Acrylics Acid Production Operations Divisions), Ir. Muhammad Firdaus Kamaruddin (Senior Manager of Acrylics Monomers Production Operations Divisions), Mr. Kamal Zaki Ghazali (Senior Executive of Production Aroma Ingredient Complexes), Mohd Najib Tumin (Manager of Oxo Production Operations Divisions) from BASF PETRONAS Chemicals Sdn. Bhd. The event was held at UMP Gambang campus.

Professional Diploma in Petroleum and Gas Technology

As part of the overall efforts to provide continuing education to the industry, FKKSA is currently running a professional diploma for oil and gas industry personnel. We have 3 batches of participants from 3 locations, which are Kuantan, Bandar Penawar, and Skudai. In total, we have 26 professionals from various oil and gas companies. We offer 12 modules related to oil and gas technology and industry, one module per month for 1 year. Outcomes of the programme:
- to provide a life-long education in this structured executive program to the industry,
- to develop a close networking with industrial personnel and aware with news, technological advancements and constraints at this moment and for industry’s future direction.
OBE Awareness and IR 4.0 Workshop

25th June 2018 — Outcome Based Education (OBE) and the 4th Industrial Revolution (IR 4.0) workshop was held at Dewan Tun Fatimah, UMP Gambang campus. The workshop was conducted by Prof. Dr. Khairiyah Mohd Yusof, the founding Director of the Universiti Teknologi Malaysia Centre for Engineering Education.

Entrepreneur Talk by Dato' Syed Burhanuddin

5th December 2018 — A talk on entrepreneur by Dato' Syed Burhanuddin Syed Abdul Wahab, chief executive officer of Skybo Resources Sdn. Bhd., was held at Library auditorium, UMP Gambang. The event was attended by Prof. Zulkafli Hassan, Dean of FKKSA, and students of class Asas Pembudayaan Keusahawan.

Visit by Dean Faculty of Engineering, UM

2nd July 2018 — FKKSA received a visit from Prof. Ir. Dr. Abdul Aziz Abdul Raman, (Middle) Dean of Engineering UM. He is also an Associate Director to Engineering Accreditation Department, Boards of Engineer Malaysia, as well past IChemE President. Dean of FKKSA, Professor Zulkafli Hassan was available to receive his visit. The round table meeting centered on 3 major discussion points; (i) IChemE Chartered Engineer membership and also Ir membership routes for professional development of FKKSA staff, (ii) Engineering accreditation process and also (iii) research collaboration. Dr. Abdul Aziz said that he is willing to assist FKKSA staff in their professional development quest. In addition, he has also invited FKKSA to visit his department at the University of Malaya to discuss prospective bilateral cooperation.

Benchmarking Visits to UTHM and UniKL

9th & 10th July 2018 — FKKSA delegation visited Universiti Tun Hussein Onn Malaysia (Left) and University of Kuala Lumpur (Right) for programme benchmarking. The FKKSA delegates were Assoc. Prof. Dr. Wan Mohd Hafizuddin Wan Yusof, Dr. Mior Ahmad Khushairi Mohd Zahari, Ir. Dr. Arman Abdullah, Dr. Resmawati Naim and Dr. Siti Hatijah Mortan.
Mohd Anis Shah Received a Scholarship from University of A Coruña, Spain

Mohd Anis Shah Mohd Zainal (Middle), FKKSA student, was successfully received a scholarship from University of A Coruña, Spain to join their International Summer School (ISS) from 28th July until 29th August 2018. In sharing his scholarship application experience, he had fulfilled the university requirement by recording a 2-minutes video stating the reasons why he want to participate in the Universidade da Coruña’s International Summer School. He was the only Malaysian student who was successfully selected by the university among other international recipients.

FKKSA Students to Turkey and Indonesia for Exchange Programme

Siti Zahiah Binti Mohd Basri, Nurul Suhana Binti Jamaluddin, Durar Amani Binti Zulkarnal and Nur Syahirah Binti Juhari were attached in Institut Teknologi Sepuluh Nopember, Indonesia, for Sem I 2018/2019.

Tan Joo Yee and Raja Hasanatul Nisa Binti Raja Tamrin were joined the exchange programme at Yildiz Technical University, Turkey, for Sem I 2018/2019.

Outbound Student Programme from China and Indonesia

Mohd Anis Shah Received a Scholarship from University of A Coruña, Spain

FKKSA Team Mobility celebrated the last day of outbound student programme in UMP for Sem I 2018/2019. The students were from Universitas Ahmad Dahlan, Indonesia and Hebei University of Science and Technology, China.

Family Day with exchange students and CHEST students at Pantai Air Leleh, Pekan, on 15th December 2018.
Boosting Student Mobility —
FKKSA Delegation Visit to Universities in Central Java, Indonesia

An academic delegation from FKKSA visited UMP’s partner universities in central Java Indonesia, for strengthening ties with them through international student mobility programme. The delegation was led by Dr. Nur Hidayah Mat Yasin, coordinator programme, along with three other team members, Dr. Khairatun Najwa Mohd Amin, Dr. Anwaruddin Hisyam and Dr. Rohana Abu. The delegation arrived in Indonesia on 17th November 2018 for 4-days official visit to four universities; Universitas Negeri Semarang (UNNES), Universitas Muhammadiyah Surakarta (UMS), Universitas Sebelas Maret (UNS) and Universitas Ahmad Dahlan (UAD). The delegates were warmly welcomed by the universities. The aim of the delegation visit was to increase the number of student exchanges between universities. The curriculum structures were also discussed to facilitate the student’s mobility requirements. “Through these delegation visits, some issues such as curriculum mapping, student visa application and other pending issues regarding the student exchange programme were resolved” said Dr. Nur Hidayah happily. The discussion resulted in an action plan for both team and host universities.

A photo session taken with lecturers and undergraduate students after Dr Anwaruddin Hisyam (center) delivering his special talk at Chemical Engineering Department, Universitas Negeri Semarang (UNNES).

UAD’s mobility students to FKKSA (Sem II 2017-2018 batch) took the opportunity to meet FKKSA lecturers at Universitas Ahmad Dahlan (UAD).

Discussion on the mobility programme between universities at Universitas Sebelas Maret (UNS).

A photo session with Academic staff of Universitas Muhammadiyah Surakarta (UMS). FKKSA delegates were warmly welcomed by Dr M. Abdul Fattah Santosam M.Ag (Middle), Vice Rector for Al Islam and Kemuhammadiyahan & Cooperation and Dr Supriyono (Left), Head of Bureau of Collaborations and International Affairs at Universitas Muhammadiyah Surakarta (UMS).
Research Publications & Grants Received By FKKSA in 2018

FKKSA continues to seek national and international recognition through Research & Development. In 2018, FKKSA secured a total of RM4,637,972.00 from various internal, national and international research funding. In research publications, FKKSA published 301 articles including indexed Scopus articles, non-indexed articles, conference papers & proceedings and book chapter, resulting in the ratio of total publication per academic staff is 3.01.

Total of 301 papers were published by FKKSA in 2018. There were 149 Indexed Scopus Articles, 72 Non-Indexed Articles, 77 Conference Proceedings (Scopus & UMPIR) and 3 Book Chapter were successfully published.

FKKSA received RM4.6 million in research funding from national & international organizations.

Research is creating new knowledge —Albert Einstein
Formulation of Symbiotic Plant Nutrient from FPG Waste Water Sludge

By: Dr. Noormazlinah Ahmad

The objective of the project is to formulate FPG waste water sludge to be used as plant nutrient using Pre-Biotic (inulin complex) and Pro-Biotic (from FPG sludge) to convert the sludge into plant nutrient enhancer.

UMP team experts:

- Dr. Noormazlinah Ahmad (Formulation of FPG Sludge, Leader of the project)
- Dr. Sharifah Maszura (Structural and Civil for Cement and concrete from FPG sludge)
- Dr. Mazlina Majid (Simulation of the production)
- Dr. Siti Hajar Noor Sharaani
- Dr. Shariza Jamek
- Dr. Nuraaina (General Manager of UMP Technologies)
- Madam Laili Zulkifli (Involved in grant management)

Research Highlights:

- Under P&G Sustainability Program, we are looking forward for the ‘ZERO Manufacturing WASTE TO LANDFILL’ to realize by Dec 2019.
- One of the potential waste source mentions in their master plan are the Waste Water Sludge generated from Biological Unit (Aeration Tank).
- Currently all of the sludge being sent to landfill for disposal, which involves cost disposal.
- An alternative need to be explored to convert this sludge into a form that could be recycled or used by other parties to avoid it being sent to landfill.
- We need to find a solution to provide at least a “Foot Print” for the sustainability requirement to set the direction for the next action plan.
- Work been done UMP in collaboration with their FKSSA, lead by Dr. Noormazlinah Bt. Ahmad to recognize potential process and application of the sludge. The program named “FORMULATION OF SYMBIOTIC PLANT NUTRIENTS FROM FPG WASTE WATER SLUDGE”.

Visiting Scholar at
King Mongkut’s University of Technology North Bangkok

Assoc. Prof. Dr. Cheng Chin Kui was in Bangkok, Thailand from 11th to 26th December 2018 as a Visiting Scholar at King Mongkut’s University of Technology North Bangkok (KMUTNB). During the 2 weeks visit, he has the opportunity to discuss with some researchers from KMUTNB on future collaboration, including staff and student mobility. He was also playing an instrumental role in pairing the researchers from both institutions with similar research interest.

In addition, a round-table meeting was also held to discuss the formation of a consortium which also includes Chulalongkorn University, in order to apply for existing flagship grant. Dr. Cheng was also invited by Chulalongkorn University to deliver an invited talk at 4th ProBioRefine Conference that was held from 13-14th December 2018. This visit is important in further enhancing the ties between Universiti Malaysia Pahang and KMUTNB-Chulalongkorn University.

Assoc. Prof. Dr. Cheng Chin Kui delivered his talk ‘Prospects of Converting Palm Oil Mill Effluent (POME) into Useful Products’ at the 4th ProBioRefine Conference, invited by Chulalongkorn University.
Malaysia Process Control Seminar 2018—ProSES Research Group

Kuantan, 5th December 2018—Malaysia Process Control Seminar (MPCS) 2018 was successfully organized by Process Systems Engineering & Safety (ProSES) Research Group, Faculty of Chemical and Natural Resources Engineering (FKKSA), Universiti Malaysia Pahang (UMP) in collaboration with Malaysia Process Control Society (myPCS). With the theme “Embracing the Role of Process Control”, the seminar gathered around 70 participants comprised of academicians, researchers, practitioners, engineers and experts in the field of process control, modelling, design and optimization. The seminar provided a platform to the participants for exchange their knowledge and experience for future practices particularly in the process industries. MPCS 2018 seminar was sponsored by the Centre of Excellence for Advanced Research in Fluid Flow (CARIFF) and Gadang Sdn. Bhd.

The participants were warmly welcomed by Dr.-Ing. Rizza Othman, the Chairman of MPCS 2018. The opening ceremony of MPCS 2018 seminar was completed by the Dean of FKKSA, Professor Zulkafli Hassan. The seminar comprised of two main activities, keynote speech and forum. Keynote presentations delivered by industrial speakers, Dr. Win Kong from BASF PETRONAS Chemicals Sdn. Bhd. and Mr. Hasnor Hasaruddin from PETRONAS GTS and academic experts, Prof. Dr. Khairiyah Mohd Yusof from Universiti Teknologi Malaysia, Prof. Dr. Ir. Zainal Ahmad and AP. Dr. Syamsul Rizal Abd Shukor from Universiti Sains Malaysia.

The programme also continued with student activities facilitated by AP Dr. Mohd. Kamaruddin Abd. Hamid from Universiti Teknologi Malaysia and panel discussion on the research direction and issues in academic related to process control. This 1-day seminar was also hosting exhibits from the main sponsor, CARIFF and products from FKKSA researchers, Kinora and Oligowell Inulin/FOS.

G-Treat and G-Grease

By: Mr. Mohd Najib Razali

G-Treat is a bio-coagulant treatment for oily wastewater from industries. This product had been developed from 2012 by Mr Mohd Najib Bin Razali and his team. G-Treat is able to treat polluted water according to the Department of Environment standards. This project was funded by The Bumiputera Entrepreneurs Start-up Scheme (SUPERB), Agensi Peneraju Bumiputera (Teraju) which provides a grant of RM500,000 to support innovative and creative business ideas. G-Treat is a safe green technology product compared to other existing chemicals in the industry. The wastewater treated by G-Treat will comply with The Standard B Effluent Discharge Environmental Quality Act 1974 imposed by the Department of Environment, Malaysia.

G-Grease is a high performance grease was developed since 2012 by Mr Mohd Najib Razali and his team. G-Grease is formulated at low cost, environmental friendly and safe. This project was funded by CRDF1 under Malaysian Technology Development Corporation (MTDC). This fund was acquired under Symbiosis 3.0 Programme with Orca Greentech Plt. CRDF is for funding of commercialisation activities of locally developed technologies undertaken by Malaysian – owned companies. G-Grease is readily available contact grease for the maintenance teams and also has been proven to be suitable for mechanical equipment. Stability, quality and properties of the product have been tested using ASTM (American Society of Testing and Materials) test.

For product enquiries, please contact Mr. Mohd Najib at +609-5492928 or email to najibrzali@ump.edu.my.
ACHIEVEMENTS—STUDENTS

Fisherman’s Son Kee Keing Lee Received Industrial Prize from BASF PETRONAS Chemicals

Khairul Nasruddin Won Best Debater at Debat Naib Canselor UMP

Congratulations to Mohamad Asraf Ismail, Ezwan Shah Mohd Nordin and Khairull Nasruddin Mansor for winning the 2nd place at Debat Naib Canselor UMP on 30th September 2018. Khairull also won the best debater in the competition.

Champion at NACES 2018

Congratulations to FKKSA UMP for being the Champion of Exhibition Competition in National Chemical Engineering Symposium (NACES 2018) held on 10-12th August 2018 in Universiti Kuala Lumpur Malaysian Institute of Chemical & Bioengineering Technology (UniKL MICET), Melaka.

2nd Place at CheS18

Congratulations to FKKSA students for receiving the second place in Golden AIChE Challenge & Poster Competition at the International Chemical Engineering Symposium 2018 (CheS18) organized by American Institute of Chemical Engineers (AIChE), Universiti Teknologi Malaysia (UTM). Arics Chieng Kie Siong and Lee Xiu Rou (Left) and Rushdi Gaafar Ahmed Ba Ragaa and Nur Farhini Binti Mohd Na’aim (Right).

Gold Medals at IYIA 2018

- Syarifah Nur Ezatie Binti Mohd Isa/Mr. Mohd Najib Razali
  Project title: G-2men Coating And Insulation Spray From Industrial Wastes
- Farm Pik Shen Renee/Associate Professor Dr. Jolius Gimbun
  Project title: The Effect of Auxiliary Energy on the Yield of Polyphenols Extraction from Andrographis paniculata
- Chong Sin Yee/Associate Professor Dr. Jolius Gimbun
  Project Title: The Effect Of Auxiliary Energy On The Yield Of Polyphenols Extraction From Candlestick alata

International Malay Language Oratory Competition (PABM 2018)

Congratulations to FKKSA international student, Rushdi Gaafar Ahmed Ba Ragaa, on winning the 9th place in the International Malay Language Oratory Competition 2018. His speech entitled “Mahasiswa Kelas Pertama Menjana Kemajuan Negara”.

Fisherman’s Son Kee Keing Lee attended the MoU signing ceremony between UMP-BASF Petronas Chemical Sdn. Bhd. at Pekan campus. Before this, he received the industrial prize at UMP 13th convocation ceremony.

Kee Keing Lee (Left) attended the MoU signing ceremony between UMP-BASF Petronas Chemical Sdn. Bhd. at Pekan campus. Before this, he received the industrial prize at UMP 13th convocation ceremony.

Kee Keing Lee (Left) attended the MoU signing ceremony between UMP-BASF Petronas Chemical Sdn. Bhd. at Pekan campus. Before this, he received the industrial prize at UMP 13th convocation ceremony.

Kee Keing Lee (Left) attended the MoU signing ceremony between UMP-BASF Petronas Chemical Sdn. Bhd. at Pekan campus. Before this, he received the industrial prize at UMP 13th convocation ceremony.
Chemical Engineering Student’s Society (CHEST)—Inauguration Ceremony

Highlights of The Ceremony
- 28th November 2018—New committee members of CHEST was sworn in and received appointment letter.
- Associate Professor Dr. Cheng Chin Kui and CHEST advisors witness the ceremony (Right).
- Certificates of appreciation presented to CHEST former committee for their contribution in CHEST activities (Left).

Dean’s Award Ceremony in conjunction with CHEST AGM

An Annual General Meeting (AGM) of CHEST was held at the Banquet Hall of Chancellery to introduce the newly-appointed committees of CHEST session 2018/2019. The faculty’s Dean, Prof. Zulkafilbin Hassan and the Dean deputy were all presented alongside the representatives from CHEST. This meeting was also held to celebrate the excellent students from all levels of Faculty of Chemical Engineering.

HIGHLIGHTS:
- A warm welcome speech from the Dean.
- A warm speech from the President of CHEST session 2017/2018, AliefUzair.
- The introduction of the newly-appointed committee of CHEST session 2018/2019.
- The Dean List Award’s Ceremony.

Picture taken during the Annual Grand Meeting on 16 October 2018. In the picture—Dean, CHEST Advisors, representatives from CHEST, IChemE, AIChE and EI Student Chapter, and the Dean List students attended.
Gambang, 29th September 2018 - A charity run program was held by Universiti Malaysia Pahang at Gambang campus. The "Star Track Charity Fun Run" is the first programme organized by the Staff Welfare and Sports Club of the Faculty of Chemical & Natural Resources Engineering (FKKSA), the FKKSA Engineering Students Association (CHEST) and the co-organizer of the Sek. Keb. Gambang in collaboration with the Vice-Chancellor Office (PNC), the Student Affairs & Alumni Affairs Department (JHEPA) and the Academic Staff Association (PAKAD) of UMP. A total of 400 participants have joined this charity run.

The objective of the programme is to raise funds for the construction of the musolla of Sekolah Kebangsaan Gambang to replace the old one that is now over 30 years old. The programme managed to earn and collect donations from YB Mohd Shahar Bin Abdullah (MP of Paya Besar) as well as several individuals who will also contribute to the funds. In addition, the profit from the running fee is also channelled to the fund. The total fund reached RM150,000 from the total required fund of RM310,000 required to build the new building.

According to "Star Track Charity Fun Run" Programme Director, Dr. Norhayati Abdullah, the idea started when looking at musolla building which has severe damage, thus the new building is required to enable students to hold and organize activities such as congregational prayers and KAFA-religious classes. According to her, as an academician, UMP is not only responsible for developing and educating students to become professional engineers but also the responsibility of lecturers and students to educate and develop the community especially around UMP. UMP has an authoritative and caliber workforce not only academically but socially as well. With such a program, it is hoped that the UMP will be able to bridge the community with local communities, and will inspire UMP students to remain positive and developing excellent soft skill.

Kuantan 15th July 2018 - Faculty of Chemical & Natural Resources Engineering (FKKSA), UMP has organized a motivational camp of Intensive QGen 2018 at Cempaka Beach Resort, Kuantan, Pahang from 13 to 15 July 2018. QGen 2018 is one of the annual community service programs on 4th edition of FKKSA staff initiative beginning in 2015 in collaboration with the Chemistry Student’s Student Association (CHEST) acting as program facilitator. The program, which is characterized by the formation of morals, leadership, team building and student exposure to Science, Technology, Engineering and Mathematics (STEM), was attended by 98 Form 4 and Form 5 students from 5 schools around Kuantan and Muadzam Shah. Hopefully, with the motivation of the camp this motivation will have a positive impact on student identity and attract students to STEM.
COMMUNITY SERVICES

BASF PETRONAS CHEMICALS’ KIDS FUN DAY

1st December 2018 – 41 students from Chemical Engineering Student’s Society (CHEST), Faculty of Chemical & Natural Resources Engineering (FKKSA), Universiti Malaysia Pahang (UMP) were involved as volunteers in BASF Petronas Chemicals Sdn. Bhd. (BPC) Kids Fun Day at BPC in Gebeng, Kuantan. The trip to BPC was led by Mr. Nasiruddin, a member of CHEST. The objective of this event is as a platform to create awareness of BASF Petronas Chemicals brand, sustainability and corporate social responsibility initiatives. The participants target was 250 which were from the employees family members. The event was attended by FKKSA’s representative, Dr.-Ing. Aainaa Izyan Binti Nafsun and a few volunteers from Malaysian Nature Society (MNS).

HIGHLIGHTS:
- Dr. Sven Crone, the Managing Director of BPC take part in the event with his family (top right).
- Volunteer from FKKSA welcome the participant by giving goodies bag (middle right).
- Ir. Shahruny bin Mohd Akil, the Site Service Director of BPC and Dr.-Ing. Aainaa Izyan taking part in the event (bottom right).
- Volunteer from FKKSA guiding and facilitate the learning process of participants in conducting the experiment (bottom left).

FKKSA ALUMNI

“Started as an intern at Transwater and was offered a seat as a project cum service engineer for 3 months in internship. Not it is in the course but the softskills really help me to adapt with the tough challenges in the industries. In the first month reporting for duty, I was assigned to an outstation work in Vietnam. This was my first time going to offshore, and with no partners, I was tasked to verify the well test data from offshore. The task was not easy as the data will be used as a fundamental for the platform production. The softskills especially steadfast with rules taught me to be firmed with my decision and hold dearly to my work ethics”

Mr. Mohd Norazam Bin Md. Aris
Operation Director
Kaazam Energy Sdn Bhd.
Graduated in Bachelor of Chemical Engineering (Gas Technology) 2009.