

RESOURCES

OFFICIAL NEWSLETTER OF THE FACULTY OF
CHEMICAL AND PROCESS ENGINEERING
TECHNOLOGY (FTKKP)
UNIVERSITI MALAYSIA PAHANG



VOL. 7 ISSUE 1 YEAR 2022

3 GOLD MEDALS AT PECIPTA'22



3 November 2022 - Researchers from the Faculty of Chemical and Process Engineering Technology (FTKKP) achieved a remarkable feat at the International Conference and Exposition on Inventions by Institutions of Higher Learning 2022 (PECIPTA'22). Associate Prof Dr Sumaiya Zainal Abidin, Associate Prof Dr Ruwaida Rasid, and Dr Noormazlinah Ahmad clinched the prestigious Gold Medal for their research at the conference and exposition, held on 1–3 November 2022 at Chancellor Hall, Universiti Malaysia Kelantan (UMK). The UMP exceptional performance was highlighted by their winning a total of 12 medals - 7 gold, 4 silver, and 1 bronze - across various fields of research. This recognition is a testament to the university's commitment to academic excellence and cutting-edge research.



FORWARD FROM DEAN



In the name of Allah, Most Gracious, Most Merciful. Salawat & salam to our prophet Muhammad SAW. In this post-COVID era, 2022 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. I hope for an excellent future for the faculty.

Prof. Ts. Dr. Che Ku Mohammad Faizal bin Che Ku Yahya

Dean of FTCKP

EDITORIAL BOARD

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Siti Qurratu' Aini Mahat

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Norfarahani A Bakar

FTKKP WON GOLD MEDALS IN MTE 2022 AND ITEX 2022



MTE 2022

Eight researchers from Universiti Malaysia Pahang (UMP) made a remarkable impact at the Malaysia Technology Expo (MTE) 2022, held virtually on 21-25 March 2022, by presenting exceptional research products. Professor Dr. Arun Gupta from the Faculty of Chemical and Process Engineering Technology (FTKKP) earned a gold medal for his outstanding research titled Novel Bio-Based Adhesive from Cross-Linked Rice Starch-Natural Rubber Latex (Nrl) For Wood Based Panels Bonding. This recognition of Dr. Gupta's groundbreaking work underlines UMP's pledge to advance research in sustainable materials and consolidate its position as a leading academic institution in Malaysia.

ITEX 2022

Universiti Malaysia Pahang (UMP) has once again demonstrated its excellence in research and innovation by securing a Special Award, 14 gold medals, and 10 silver medals at the highly prestigious International Invention, Innovation and Technology Exhibition 2022 (ITEX), held on 26-27 May 2022 at the Kuala Lumpur Convention Center (KLCC). The remarkable performance of UMP researchers in this event highlights their commitment to pioneering cutting-edge research in various fields. Dr. Suriyati Binti Saleh from the Faculty of Chemical and Process Engineering Technology (FTKKP) stood out with her outstanding innovation titled "GREEN FUEL-Pellet: Renewable Solid Biofuel from Biomass", which earned her a well-deserved Gold Medal.



CITREX 2022 SHOWCASES UMP RESEARCH PRODUCTS VIRTUALLY



The research excellence of Universiti Malaysia Pahang (UMP) was on full display as 220 of its researchers, comprising lecturers, postgraduate students, and undergraduates, participated in the virtual 12th Creation, Innovation, Technology & Research Exposition (CITREX) 2022. This exhibition served as a platform for showcasing UMP's research products, knowledge transfer, technology exposure, and experience sharing involving 113 academic staff, postgraduate students, and 80 undergraduates.

Despite the challenging nature of conveying their ideas, the Faculty of Chemical and Process Engineering Technology (FTKCP) lecturers managed to secure 1 gold medal, 1 silver medal, and 1 bronze medal at the event. The impressive feat was achieved by Dr. Suriyati Binti Saleh, Dr. Mohd Shafiq Mohd Sueb, Dr. Rajaletchumy Veloo Kutty, and Dr. Mohd Shaiful Zaidi Bin Mat Desa.

ASPEN PLUS CERTIFIED USERS

Universiti Malaysia Pahang (UMP) continues to lead the way in equipping its students and staff with the latest technical skills needed in the industry. Through the Industry@University KPT, UMP has established a CC-SISPI Competency Centre equipped with state-of-the-art facilities such as integrated driving plants, highly specialised processing systems, simulation software, and computers. The centre was established to provide training and equip students and staff with the latest technical skills required in the industry, particularly in the oil and gas sector.

A total of 25 participants, consisting of UMP staff and students, successfully completed the training programme. The programme yielded outstanding results, with 17 participants (68%) passing and being recognised as Aspen Plus Certified Users. Associate Professor Ts. Dr. Ruwaida Abdul Raid, a member of the Faculty of Chemical and Process Engineering Technology (FTKCP), was among those who successfully obtained the "Certified Aspen Plus User" recognition.



*CENDEKIA BITARA
AWARDS 2021
“PILLARS OF THE
NEW DAWN”*



The Cendekia Bitara Award (ACB) is an annual event held by Universiti Malaysia Pahang (UMP) since 2009 to acknowledge and honour the excellence of its staff. The ACB 2021 took place on 21 July 2022 at Hotel Zenith Kuantan, with updated categories and criteria aligned with UMP25 Strategic Plan. The awards are deemed to improve the research ecosystem at UMP. Six FTKKP staff received awards, including Professor Ts. Dr. Che Ku Mohammad Faizal Che Ku Yahya, Professor Datin Ts. Dr. Mimi Sakinah Abdul Munaim, Associate Professor Ts. Dr. Rohayu Jusoh, Associate Professor Ts. Dr. Sumaiya Zainal Abidin @ Murad, and Ts. Dr. Liang Yong Yeow, who won the Cendekia Bitara Award (Journal Publication Category). Professor Ts. Dr. Che Ku Mohammad Faizal Che Ku Yahya and Dr. Rosmawati Naim also received the Appreciation Award (Journal Publication Category). Congratulations to all Cendekia Bitara Award 2021 recipients from Universiti Malaysia Pahang.



UMP LECTURERS ASSIST IN THE DESIGN OF THE MODULAR SYSTEM OF AIR POLLUTION CONTROL FOR CLINICAL WASTE COMBUSTION



Associate Professor Ir. Dr. Mohamad Rizza Othman, Ts. Dr. Abdul Halim Abdul Razik and Ir. Dr. Arman Abdullah have partnered with local companies in building the Air Pollution Control System (APC). The system is designed modularly for easy installation and maintenance, does not produce water residues and is equipped with instrumentation and control systems capable of controlling the level of smoke emission as required by the Department of Environment (DOE). This modular idea is inspired by the F³ FACTORY (Flexible, Fast and Future Production Processes) concept introduced in Europe around 2009. The prototype will be built and operated at the clinical waste disposal site, Telok Panglima Garang, Selangor and Telok Kalong, Terengganu.



INDUSTRIES SHARE KNOWLEDGE WITH FTKKP STUDENTS AND STAFF



The Faculty of Chemical and Process Engineering Technology (FTKKP) is dedicated to equipping students with knowledge of fundamental engineering principles and real-world industry practices. To achieve this goal, the faculty organises sessions and talks with experts from various industries. These initiatives were implemented across several subjects in diploma and bachelor degree programmes, with expert speakers from companies such as PETRONAS Chemical Sdn. Bhd., CJ Bio Malaysia Sdn. Bhd., Uzma Group, and Petrofac. Bachelor degree courses involved in these sessions include Welding & Inspection, Chemical Process Principles, Bioprocess Technology, HSE in Oil & Gas Industry, Plant Trouble Shooting & Maintenance, Environmental & Sustainable Technology, Optimal LNG Operation, and Process Management & Economics. Meanwhile, for the diploma level, the Plant Supervision course also organised a session to give exposure to the students.

GLOBAL TALENT IN THE OIL & GAS INDUSTRY

The Ministry of Foreign Affairs (MOFA) Malaysia sponsored a conference and dialogue titled "Managing Global Talent in the Oil & Gas Industry" organised by the Petroleum Institute of Technology Petronas (INSTEP). The program aimed to facilitate the sharing of experience, knowledge, and strategic conversations among industry players on developing technical talents. Attendees included the Ministry of Human Resources, Oil & Gas, Government Bodies, and Head of Plants from developing countries worldwide. Associate Professor Ts. Dr. Rohayu Jusoh from FTKKP participated in the forum as a panel member for the Retooling Human Capital Equation in Energy Industry forum. The forum aimed to share the best practices of development in the Malaysian oil & gas industry. During the forum, the MSc programme in process plant operations was featured as a hands-on programme in collaboration with INSTEP.



COLLABORATION BETWEEN UMP, MNR AND UMW IN THE FOOD-GRADE GREASE OIL RESEARCH

Universiti Malaysia Pahang (UMP) collaborated with Multitech Sdn. Bhd. (MNR) and UMW Innovation and R&D Center Sdn. Bhd. to conduct a research project on food-grade grease oil. Ts. Mohd Najib Razali, a lecturer in the Faculty of Chemical Engineering and Process Technology (FTKKP) and also the director of MNR, led the research. The product is a food-grade grease oil formulation that uses halal ingredients and UMW-produced oil, which is safe to use in various industries, including food processing, pharmaceuticals, and medicine.

BVF PROGRAMME COLLABORATES WITH INDUSTRIES FOR SKILL ENHANCEMENT OF STAFF AND STUDENT



Bachelor of Technology in Oil and Gas Facilities Maintenance (BVF) programme collaborated with industries to enhance the skills of students and staff. The programme sent academic and technical staff to various upskilling training, including the practical training on "Alignment" for the BVF3224 Alignment & Condition Based Monitoring (CBM) course. The training was conducted for five days on 22-26 May 2022 at Serba Dinamik Sdn. Bhd. in Paka, Terengganu. A total of 12 Year 3 BVF students participated in this practical module. The programme would like to extend gratitude to Mr. Nazifi and Mr. Zaim from the industry for their guidance and cooperation during the training. The exposure gained from the training is expected to fulfill the current industry needs.

INDUSTRIAL GRANTS



FTKPP proudly announced that five of their researchers had received industrial grants. This significant achievement not only recognizes the outstanding contributions and hard work of the faculty members but also demonstrates FTKPP's dedication in producing highly skilled and knowledgeable graduates, as well as contributing to the development of the industry.



These grants will undoubtedly enable researchers to pursue innovative research projects and develop cutting-edge solutions to address real-world challenges in various fields of chemical engineering and process technology. This accomplishment highlights FTKPP's commitment to excellence and reinforces its position as a leading institution in the field of chemical engineering and process technology.

VISITING LECTURER AT INDUSTRIAL UNIVERSITY OF HO CHI MINH CITY, VIETNAM



Associate Professor Dr. Sumaiya bt Zainal Abidin @ Murad, a renowned academician in her field, has been appointed as a visiting professor at the Industrial University of Ho Chi Minh City, Vietnam. Her appointment is scheduled from 23 November to 7 December 2022. During her stay in Vietnam, Dr. Sumaiya conducted several knowledge-sharing activities at a conference organised by the University. The conference provided an excellent platform for her to interact with students and faculty members and exchange ideas with them. Dr. Sumaiya's contribution to the academic community at the Industrial University of Ho Chi Minh City was well received and appreciated. Her appointment as a visiting professor highlights her expertise and excellence in her field and further strengthens the collaboration between the Industrial University of Ho Chi Minh City and other academic institutions.



6TH INTERNATIONAL CONFERENCE OF CHEMICAL ENGINEERING & INDUSTRIAL BIOTECHNOLOGY (ICCEIB2022)

FTKKP successfully organised the 6th International Conference of Chemical Engineering & Biotechnology Industrial Technology (ICCEIB2022) on 15-16 August 2022. The conference was jointly organized with other well-known institutions, including the University of Nguyen Tat Thanh (Vietnam) and Tianjin University (China). Participants from various countries, including Vietnam, China, Indonesia, Thailand, Iraq, and South Korea, presented their research findings on the future prospects of sustainable food, energy, and clean water.

The number of abstracts received exceeded the original target of 290 copies, and over 65% of them were selected for oral presentation in ICCEIB2022. Moreover, the conference was granted the privilege of publishing special issues in high-impact factor journals, including the International Journal of Hydrogen Energy (Elsevier), Journal of Chemical Technology and Biotechnology (Elsevier), and Chemical Engineering Technology (Wiley). Participants also had the opportunity to submit their manuscripts to Materials Today: Proceedings (Elsevier) and AIP Conference Proceedings (American Institute of Physics).

All abstracts and advanced manuscripts were reviewed by dedicated scientific committee members and specialised experts to ensure the suitability of the articles for publication. Based on the successful participation and outcomes of ICCEIB2022, FTKKP is planning to organise the seventh edition in 2024, aiming to foster further collaboration and progress in sustainable technology for industry and community.



ONE-DAY SEMINAR ON SUSTAINABLE AND RESPONSIBLE MINING



One-day Seminar on Sustainable and Responsible mining was held on 28 May 2022 at the Tun Fatimah Hall UMP Gambang. The seminar was part of an academic collaboration initiative under the MoU agreement between Universiti Malaysia Pahang and the Department of Minerals and Geoscience Malaysia (JMG). The event was attended by approximately 40 participants from the industry and was also attended by several UMP staff and undergraduate students.



The morning session began with a welcome speech by the Dean of FTKKP, Professor Ts. Dr. Che Ku Mohammad Faizal bin Che Ku Yahya, emphasising the importance of community and industry involvement in line with the UMP slogan, Technology for Society. The morning session continued with three speakers discussing on local issues, current development, and best practices in responsible mining.

In the evening session, a panel discussion forum was held, featuring Dato' Ir Ts. Dr. Badhrulhisham bin Abdul Aziz, Mr. Hanizam Shah bin Saidin, and Mr. Muhammad Hisyam bin Abdullah, as the panellists. The forum was moderated by Ts. Dr. Norasyikin binti Ismail, and the Deputy Dean (Research & Graduate Studies), Dr Mazni binti Ismail, ended the evening session with a closing speech.

The seminar successfully produced positive results, with participants and speakers sharing their experiences, knowledge, new ideas, and best practices in the mineral and mineral industries. This event played a significant role in fostering collaboration and progress in the responsible mining sector.



CSR PROGRAMME 'EXCEL FOR BEGINNERS' WITH SMK GAMBANG



27 October 2022 - Cluster Process Systems Engineering and Safety (ProSES) from FTKKP organised an Excel workshop for 20 students from SMK Gambang. The workshop, which lasted from 10:00 am to 3:00 pm, aimed to establish and strengthen the communication network between the university and the school and to share information for mutual well-being through a more effective approach.

The programme included introductions on Universiti Malaysia Pahang, the Faculty of Chemical Engineering Technology and Process, and a laboratory visit to expose the students to the world of science and technology. Additionally, two police officers from the Gambang Police Station worked with UMP to ensure smooth transportation for the SMK Gambang students. The workshop provided a platform for the FTKKP staff to serve the community and promote community activities. The workshop not only exposed the importance of using Microsoft Excel but also aimed to inspire students to pursue a career in science and technology.





PLANT INTEGRITY, MAINTENANCE AND PROBLEM SOLVING

MSc students in Process Plant Operations (FTKKP) attended their compulsory modules on Plant Integrity, Maintenance, and Problem-solving on 17-19 June 2022. The modules were held in a face-to-face learning session at the Petronas Petroleum Institute (INSTEP) in Kuala Terengganu. The students were able to enhance their knowledge and skills through the practical sessions conducted by industry experts at INSTEP. The compulsory modules aim to equip the students with the necessary knowledge and skills to operate and maintain process plants safely and efficiently. The face-to-face learning session provided the students with an opportunity to interact and network with their peers and industry experts, which will benefit them in their future careers in the process plant operations industry.

STUDENT EXCHANGE PROGRAMME

Two FTKKP students were selected for the Student Exchange Program at Sepuluh Nopember Institute of Technology in Indonesia. The programme allows students to exchange experiences and ideas with their peers from different countries, which can broaden their perspectives and enhance their cultural awareness. UMP also received four students from overseas, including one each from Germany, Denmark, India, and Indonesia, who were placed in different programmes at FTKKP. Such programmes can promote international collaboration among universities and their students, which can contribute to the betterment of society as a whole.



BTO TEAM BONDING

A "Team Bonding" programme for the Bachelor of Mechanical Engineering Technology (Petroleum) (BTO) was successfully organised on 26 November 2022 at the Astaka Hall UMP Gambang. This event was a collaborative effort between the Faculty of Chemical Engineering Technology and Process (FTKKP) and the Association of Petroleum Engineers (SPE). A total of 90 participants, including students, lecturers, and family members, attended the programme.

DEBATE COMPETITION 2022



The International Society for Pharmaceutical Engineering (ISPE) Student Chapter of the University organised a Student Debate event in conjunction with the 10th anniversary of ISPE Malaysia. The main objective of this event was to provide a platform for students from different universities to engage in critical thinking and communication. The event was also aimed at fostering soft skills development, including critical reading and the exploration of real-world issues related to the pharmaceutical industry.

The event saw the participation of several universities, including SEGi University, Cyberjaya University, Kolej Kemahiran Tinggi MARA (KKTm), International Islamic University Malaysia (IIUM), and Team UMP from the Faculty of Chemical Engineering Technology and Process (FTKKP). After a series of engaging debates, Team UMP emerged as the champions of the competition.

NATIONAL NANOTECHNOLOGY INNOVATION RESEARCH PROJECT COMPETITION (PIN)

Nur Amalina binti Ramli, a PhD student from FTKKP under the supervision of Associate Professor Dr. Fatmawati binti Adam and co-supervised by Dr. Khairatun Najwa, achieved a remarkable feat by winning first place in the Doctor of Philosophy category at the 2022 National Nanotechnology Innovation Research Project Competition (PIN). The competition was held on 6–9 September 2022 and aimed to provide postgraduate students with a platform to showcase their innovative and creative ideas in research, including the development of nanotechnology.

Nur Amalina's outstanding performance can be attributed to her exceptional research skills, knowledge, and passion for nanotechnology. Her research work involved the production of materials and the application of nanotechnology in various sectors, highlighting the potential of this field to contribute significantly to the advancement of technology.



BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS



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UNIVERSITI MALAYSIA PAHANG

PROGRAMME SYNOPSIS

The Bachelor of Chemical Engineering (BKC) programme aims to educate potential engineers to design, develop, and operate chemical processes by which chemicals, petroleum products, food, polymers, pharmaceuticals and consumer goods can be produced in a safe and sustainable way. At the same time, the programme also emphasize fundamentals and methods to treat and manage waste in an efficient and sustainable manner.

WHO CAN APPLY?

Diploma
STPM
Matriculation
IPTS foundation



ENTRY REQUIREMENTS

SCAN ME



<https://admission.ump.edu.my/>

PRESTIGIOUS CAREER OPPORTUNITIES

Chemical engineering graduates from BKC programme have the skills required to work effectively in many industries and sectors.

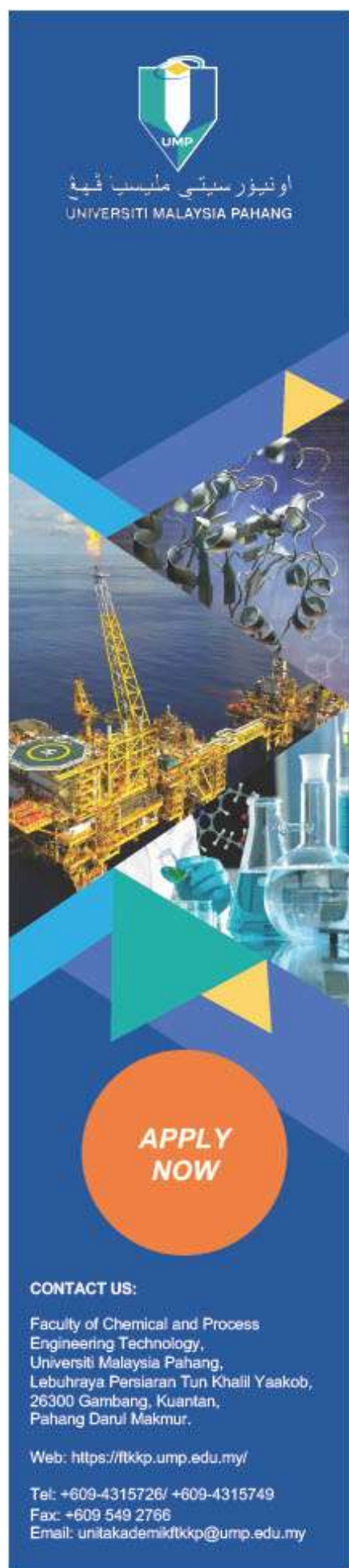
- Chemical Engineer
- Process Control Engineer
- Plant Engineer
- Production/ Process/ Operation Engineer
- Safety Engineer
- Environmental Engineer
- Quality Assurance Engineer
- Consultant
- Researcher
- Academician
- Entrepreneur

ACCREDITATION

The four-year Bachelor of Chemical Engineering (BKC) programme was offered by Universiti Malaysia Pahang since year 2002 is an accredited programme by Engineering Accreditation Council (EAC), Board of Engineers Malaysia under the Washington Accord.

CURRICULUM AT A GLANCE

- ❑ Mathematics, Physics, Chemistry, Thermodynamics, Transport Phenomena, Process Design and Control, Process Safety, Environmental Engineering, Unit operations, Process Simulation, Materials Science, and many other courses are addressed in the BKC curriculum.
- ❑ The BKC programme also provides exposure to aspects of humanities and social sciences through subjects such as English language and foreign languages, entrepreneurship, economics, management and other non-engineering subjects.



APPLY
NOW

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UMP Malaysia
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TEKNOLOGI
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MASYARAKAT



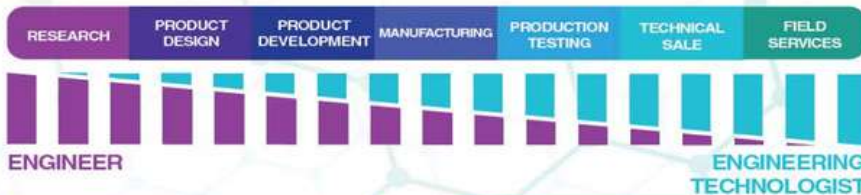
BACHELOR OF MANUFACTURING ENGINEERING TECHNOLOGY (PHARMACEUTICAL)

PROGRAMME SYNOPSIS

Bachelor of Manufacturing Engineering Technology (Pharmaceutical) with Honours is a 4-year degree program that prepares students to become an engineering technologist or an applied engineer in the pharmaceutical industry. This program is unique because it combines both disciplines of engineering technology and pharmaceutical science in a carefully designed curriculum with a strong industrial focus. B. Eng. Tech. Manufacturing (Pharmaceutical) (Hons.) will provide students with the understanding of the technical elements in drug product development; from the dosage formulation to the manufacturing operations, validation, and regulation process. Since the nature of engineering technology program is the practice of applying hands-on knowledge to engineering activities, this program will enable students the ability to operate and maintain highly specialized technology in the pharmaceutical manufacturing process. At the end of this program, students are required to complete a 24-week industrial training to gain new skills and experiences and importantly to expose students to the practices in the industry.

WHAT IS ENGINEERING TECHNOLOGY?

"Engineering technology education focuses primarily on the applied aspects of science and engineering aimed at preparing graduates for practice in that portion of the technological spectrum closest to product improvement, manufacturing, construction, and engineering operational functions" - The Accreditation Board for Engineering and Technology (ABET).



WHO CAN APPLY?

Diploma
STPM
Matriculation
IPTS foundation



ENTRY REQUIREMENTS

SCAN ME



<https://admission.ump.edu.my/>

CAREER OPPORTUNITIES

- Pharmaceutical manufacturing / production
- Food & beverages
- Validation & quality control
- Regulatory affairs
- Research & development
- Health industry
- Government services



UNIVERSITI MALAYSIA PAHANG (UMP)



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MOA Number: MOA/FA1255

IJAZAH SARJANA MUDA TEKNOLOGI PENYELENGGARAAN FASILITI MINYAK DAN GAS DENGAN KEPUJIAN

SINOPSIS PROGRAM

Program ini direka bentuk untuk menghasilkan graduan berkemahiran tinggi dan berdaya saing dalam bidang Penyelenggaraan Fasiliti Minyak dan Gas.

KELEBIHAN PROGRAM

- Kursus ini dirangka bagi memberi pendedahan teknikal dan teori kepada pelajar mengenai operasi serta penyelenggaraan peralatan dalam bidang minyak dan gas.
- Mod 2u2i (2.5 tahun pembelajaran di Universiti dan 1 tahun latihan/kajian kes di industri).
- Program TVET berdasarkan *profession based* di mana pembangunan kurikulum berdasarkan input dari pihak industri minyak dan gas.
- Penekanan kepada kaedah pembelajaran *work-based learning & kombinasi pendekatan theory embedded lab*.
- Menerapkan elemen keusahawanan, profesionalisme & etika dan elemen IR 4.0 dalam penyampaian struktur kurikulum.

SYARAT KEMASUKAN

Diploma

Mempunyai kelulusan Diploma Kemahiran Malaysia (DKM), Diploma Lanjutan Kemahiran Malaysia (DLKM), atau Diploma Vokasional Malaysia (DVM) dengan **minimum CGPA 2.0** yang diiktiraf setaraf dengannya oleh Kerajaan Malaysia dan diluluskan oleh Senat Universiti

MUET

Mendapat sekurang-kurangnya **Tahap 1 (Band 1)** dalam Malaysian University English Test (MUET) mengikut tempoh sah laku pada tarikh permohonan

Syarat Tambahan

Calon tidak mempunyai ketidakupayaan fizikal/ anggota dan tidak buta warna sehingga menyukarkan kerja-kerja amali

Peluang pekerjaan dalam bidang minyak dan gas:

- | | |
|--|--|
| ➤ Penolong Jurutera Penyelenggara | ➤ Penolong Jurutera Rotating |
| ➤ Penolong Jurutera Penyelenggara Loji | ➤ Penolong Jurutera Lapangan |
| ➤ Penolong Jurutera Perancang | ➤ Eksekutif Penyelenggara & Operasi dan Servis |
| ➤ Penolong Jurutera Statik | ➤ Perancang Projek / Eksekutif Projek |



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UNIVERSITI MALAYSIA PAHANG



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BACHELOR OF MECHANICAL ENGINEERING TECHNOLOGY (PETROLEUM)



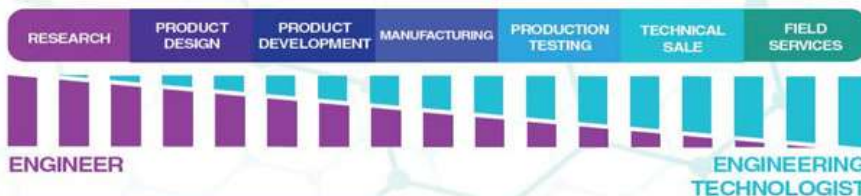
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UNIVERSITI MALAYSIA PAHANG

PROGRAMME SYNOPSIS

Bachelor of Mechanical Engineering Technology (Petroleum) will enable students to acquire substantial knowledge and comprehensive understanding in a combination of chemical and petroleum disciplines to equip graduates with broad expertise that can be applied in industry, as well as equip students with professional skills to enhance employability. This course contains chemical and petroleum engineering technology contents with the main emphasis on fluid mechanic and thermodynamic, engineering economy and management, geosciences, reservoir, well drilling and completion, production and petroleum process technology.

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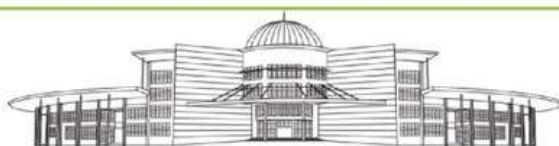
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CAREER OPPORTUNITIES

- Pipeline Integrity Technologist
- Operation Technologist
- Reservoir Technologist
- Petroleum Process Technologist
- Drilling Technologist
- Production Technologists
- Process Technologist
- Research & development
- Government services



UNIVERSITI MALAYSIA PAHANG (UMP)

APPLY NOW

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BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS

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- Plant Engineer
- Production/ Process/ Operation Engineer
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- Environmental Engineer
- Quality Assurance Engineer
- Consultant
- Researcher
- Academician
- Entrepreneur

ACCREDITATION

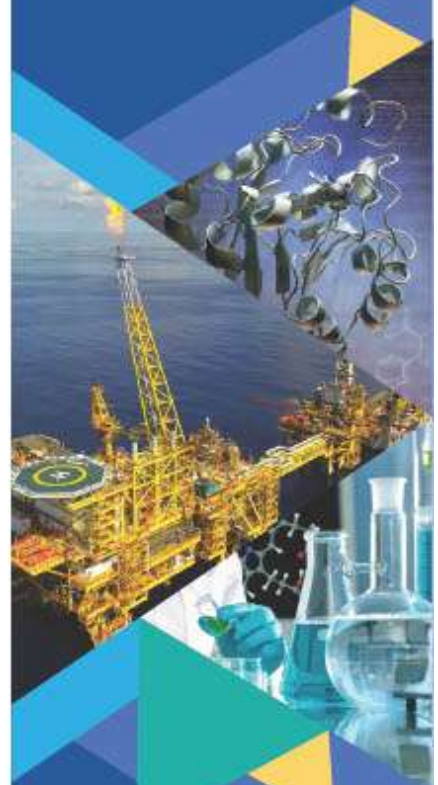
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MASTER BY COURSEWORK IN FTKKP

Universiti Malaysia PAHANG

MASTER OF SCIENCE IN MINING WITH MINERAL TECHNOLOGY (MQA/PA 9579)

'Towards Safe and Environmentally Sustainable Mining'

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Faculty of Chemical & Process Engineering Technology, UMP

Universiti Malaysia PAHANG **AMBA** **STARS** **MyMoheS**

5 **MURR**

MASTER IN CHEMICAL ENGINEERING WITH ENTREPRENEURSHIP (BY COURSEWORK)

MASTER IN MINING AND MINERAL TECHNOLOGY (BY COURSEWORK)

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- PEO 1** To produce graduates with advanced knowledge of relevant skills and tools for modern technologies in mining and mineral field.
- PEO 2** To produce graduates with the capability of solving industrial problems toward growth and competitiveness of their respective companies.
- PEO 3** To prepare the graduates to apply the technical, social and economical aspects of the job requirements in working field with their subordinates, peers and superiors effectively with high communication and management skills.
- PEO 4** To prepare graduates to have professional and responsibility towards society and the environment, and exhibit the life-long learning spirit.

PROGRAM LEARNING OUTCOMES (PLO)

PLO1 (Knowledge of Discipline Areas): Demonstrate mastery of advanced knowledge in the mining and mineral technology field and have the capability to further develop or use them in new situations or multi-disciplinary contexts.

PLO2 (Practical Skills): Evaluate business plan comprehensively based on the qualified commercial opportunities.

PLO3 (Problem Solving and Scientific Skills): Develop creative and innovative solution for the problems related to business and chemical engineering.

PLO4 (Communication Skills): Demonstrate good communication skills by verbal, written and visual means with a variety of audiences.

PLO5 (Social Skills and Responsibility) | Entrepreneurship and Management Skills: Work as an effective member of an interdisciplinary team, assuming leadership and other specialist roles as required.

PLO6 (Managerial and Entrepreneurial Skills): Demonstrate the understanding on the effect of entrepreneurship solution and the concept of sustainability in global, environmental and social perspectives.

PLO7 (Leadership Skills): Function effectively as an individual and in a group with the capacity to be a leader or manager.

MASTER IN PROCESS PLANT OPERATION (BY COURSEWORK)

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- PEO 1** To prepare graduates who can apply their knowledge and experience in process plant operation, management and supporting tasks.
- PEO 2** To prepare the graduates to apply the latest technology in the workplace through learning and research.
- PEO 3** To prepare graduates with strong communication capabilities.
- PEO 4** To prepare graduates who show professionalism and responsibility towards society and the environment.

PROGRAM LEARNING OUTCOMES (PLO)

PLO1 (Knowledge of Discipline Areas) | Practical Skills: Graduate will be able to show concepts and knowledge in-depth process plant and has the ability to build or use knowledge in new situations in the context of multi-discipline.

PLO2 (Problem Solving and Scientific Skills): Graduate will be able to analyze and solve problems in the critical plant processes with limited information and provide solutions through the application of appropriate tools and techniques.

PLO3 (Practical Skills) | Social Skills and Responsibility: Graduate will be able to exchange and information with the staff, social issues and price through research and apply to the context of engineering.

PLO4 (Communication, Leadership and Team Skills) | Values, Attitudes and Professionalism: Graduate will be able to show leadership values through communication and collaboration with members of the organization in a professional, ethical and responsible manner.

PLO5 (Entrepreneurship Management and Lifelong Learning): Graduate will be able to manage sustainability science careers and professional development self development.

MASTER IN CHEMICAL ENGINEERING WITH ENTREPRENEURSHIP (BY COURSEWORK)

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- PEO 1** Theory-practice application: Graduates are able to transfer their knowledge and experience from classroom to real-life case and vice versa.
- PEO 2** Managerial capabilities: Graduate achieves the managerial competencies as targeted by employer.
- PEO 3** Career development: Graduate achieves their career objectives.

PROGRAM LEARNING OUTCOMES (PLO)

PLO1 (Knowledge of Discipline Areas): Apply the knowledge of chemical engineering, economics, business management and entrepreneurship.

PLO2 (Practical Skills): Evaluate business plan comprehensively based on the qualified commercial opportunities.

PLO3 (Problem Solving and Scientific Skills): Develop creative and innovative solution for the problems related to business and chemical engineering.

PLO4 (Communication Skills): Demonstrate good communication skills by verbal, written and visual means with a variety of audiences.

PLO5 (Social Skills and Responsibility): Work as an effective member of an interdisciplinary team, assuming leadership and other specialist roles as required.

PLO6 (Managerial and Entrepreneurial Skills): Demonstrate the understanding on the effect of entrepreneurship solution and the concept of sustainability in global, environmental and social perspectives.

PLO7 (Leadership Skills): Function effectively as an individual and in a group with the capacity to be a leader or manager.

Come and join us!