

HI-LIGHT

FAKULTI KEJURUTERAAN ELEKTRIK



EDISI 2021



**Recording for Official
Videos of Laboratory
Facility in FKE UTeM**

**Sorotan E-Beca
di FKE**

**FKE Innovation and
Commercialization NEW**

**FKE Strategic
Initiatives**

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Hak cipta terpelihara. Tiada bahagian daripada terbitan ini boleh diterbitkan semula, disimpan untuk pengeluaran atau ditukarkan dalam sebarang bentuk menggunakan sebarang alat sama ada dengan cara elektronik, gambar serta rakaman dan sebagainya tanpa kebenaran bertulis daripada pihak Fakulti Kejuruteraan Elektrik (FKE), Universiti Teknikal Malaysia Melaka.

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Tinta Ketua Editor

Assalamualaikum WBT dan Salam Sejahtera,

Ucapan setinggi-tinggi kesyukuran ke hadirat ilahi kerana dengan izin-Nya, HI-LIGHT FKE edisi 2021 telah diterbitkan untuk menemui pembaca khusus warga FKE dan warga UTeM secara amnya. Saya selaku ketua editor, merakamkan jutaan terima kasih, kepada semua pihak sama ada dari Jawatankuasa Penerbitan FKE dan penyumbang artikel, yang telah bersama-sama berusaha dalam mengumpul dan menghasilkan majalah yang memberi kenangan manis buat warga fakulti. Cabaran di zaman pandemik Covid-19 dapat di atasi dengan usaha keras dan semangat yang kental untuk majalah yang julung-julung kali diterbitkan.

Majalah ini dihasilkan adalah untuk memberi ruang kepada semua warga fakulti bagi mengabadikan segala aktiviti sepanjang tahun 2021 agar dapat dipaparkan dan dapat disimpan sebagai kenangan pada masa hadapan. Majalah ini juga, secara tidak langsung memberi pengiktirafan kepada warga fakulti yang telah mengharumkan nama fakulti sehingga di peringkat antarabangsa.

Saya mewakili Sidang Redaksi Majalah HI-LIGHT FKE edisi 2021 memohon ampun dan maaf andai terdapat kelemahan dan kekurangan di dalam kandungan majalah ini. Semoga penambahbaikan yang berterusan dapat menjadikan majalah HI-LIGHT FKE satu majalah yang dinanti-nantikan pada setiap keluaran oleh semua warga fakulti.

Sekian, terima kasih
Ir. Dr. Zamani Md Sani



FKE VIRTUAL FUN RUN 2021

Oleh: Mohamad Riduwan Md. Nawawi dan Jawatankuasa Kebajikan dan Pembangunan Staf FKE

Bersempena Sambutan Bulan Kemerdekaan bagi Tahun 2021, Jawatankuasa Kebajikan dan Pembangunan Staf FKE telah menganjurkan program FKE Virtual Fun Run 2021. Program ini telah berlangsung dari 30 Ogos sehingga 14 September 2021. Peserta yang menyertai acara larian ini diwajibkan melengkapkan larian penuh sejauh 5 KM dan layak menerima cenderahati berupa T-shirt FKE Virtual Fun Run 2021.

Sebanyak empat kategori yang dipertandingkan iaitu;

- Veteran lelaki (berumur ≥ 40 tahun)
- Lelaki (berumur bawah 40 tahun)
- Veteran wanita (berumur ≥ 40 tahun)
- Wanita (berumur bawah 40 tahun)

Peserta dikehendaki membuktikan masa dan jarak larian melalui tangkap layar daripada sebarang aplikasi larian yang berupaya merekodkan jarak dan masa seperti Strava, Garmin, Google Fit, Runkeeper dan sebagainya. Pemenang bagi setiap kategori ditentukan berdasarkan jumlah terkumpul jarak larian dan masa yang dilakukan. Seramai 55 orang staf FKE telah mengambil bahagian dalam program riadah ini.

Walaupun negara masih dalam fasa pandemik Covid-19, namun ianya tetap tidak melemahkan semangat juang warga FKE untuk kekal cergas serta aktif dengan mengamalkan SOP yang telah ditetapkan kerajaan Malaysia. Ini juga membuktikan bahawa dalam tempoh lockdown, amalan riadah dan budaya gaya hidup sihat boleh dilaksanakan dengan mengikut ketetapan norma baharu yang telah digariskan oleh pihak kerajaan.

Tahniah diucapkan kepada semua pemenang dan peserta FKE Virtual Fun Run 2021. Jutaan terima kasih juga kepada urus setia program dan semua Ahli Jawatankuasa Kebajikan dan Pembangunan Staf FKE. Pemenang bagi setiap kategori adalah seperti berikut;

Kategori Lelaki

No.	Nama Pemenang	Jarak Larian
1.	Dr. Mohd Hafiz bin Jali	171.32 KM
2.	En. Mohd Arif bin Mohd Nor	170.20 KM
3.	Dr. Mohd Rusdy bin Yaacob	168.90 KM
4.	En. Ahamad Fuad bin Jaapar	66.00 KM
5.	Ir. Dr. Anuar bin Mohamed Kassim	58.21 KM

Kategori Wanita

No.	Nama Pemenang	Jarak Larian
1.	Pn. Irma Wani binti Jamaludin	73.84 KM
2.	Dr. Rahifa binti Ranom	42.12 KM
3.	Dr. Norafizah binti Abas	39.00 KM
4.	Dr. Junainah binti Sardi	24.20 KM
5.	Dr. Aziah binti Khamis	22.80 KM

Kategori Lelaki Veteran

No.	Nama Pemenang	Jarak Larian
1.	PM. Dr. Mohd Shahrieel bin Mohd Aras	133.41 KM
2.	Ir. Dr. Fariz bin Ali @ Ibrahim	124.80 KM
3.	En. Abdul Aziz bin Abu Bakar	115.40 KM
4.	Dr. Zulhani bin Rasin	103.09 KM
5.	Ir. Alias bin Khamis	93.25 KM

Kategori Wanita Veteran

No.	Nama Pemenang	Jarak Larian
1.	Dr. Azrita binti Alias	50.00 KM
2.	PM. Dr. Mariam binti Md Ghazaly	26.17 KM
3.	Pn. Azliani binti Md Ngari	21.20 KM
4.	Pn. Anis Niza binti Ramani	18.20 KM
5.	Dr. Ainain Nur binti Hanafi	17.00 KM





Pertandingan Fotografi FKE@Merdeka 2021

Oleh: Mohamad Riduwan Md. Nawawi dan Jawatankuasa Kebajikan dan Pembangunan Staf FKE

Tema 'Malaysia Prihatin' telah diangkat sekali lagi sebagai penyatuan semangat juang warga Malaysia dalam menyambut Bulan Kemerdekaan untuk Tahun 2021. Seajar dengan nilai murni serta iltizam tema sambutan Hari Kebangsaan Malaysia, Jawatankuasa Kebajikan dan Pembangunan Staf FKE telah menganjurkan pertandingan Fotografi FKE@Merdeka 2021. Program yang julung-julung kalinya diadakan ini telah berlangsung dari 30 Ogos sehingga 14 September 2021.

Objektif pertandingan ini adalah untuk mencungkil bakat dan kreativiti di kalangan staf FKE dalam berkarya melalui seni fotografi. Di samping itu, ianya dapat menyuburkan semangat patriotisme serta menterjemah keprihatinan kita melalui sebuah foto. Terdapat dua kategori yang dipertandingkan iaitu; Kategori Utama dan Kategori Khas.

Bagi naskhah Kategori Utama, peserta perlu menghantar gambar bertemakan 'Malaysia Prihatin'. Lima hadiah ditawarkan dan pemenang ditentukan melalui penilaian panel juri yang telah dilantik. Manakala tema untuk Kategori Khas adalah bebas. Peserta dikehendaki

memuat naik gambar di laman Facebook dan dimestikan meletakkan tanda pagar #pertandinganfotografifke2021 serta memastikan foto dalam tatapan umum. Sebanyak tiga hadiah ditawarkan dan penentuan pemenang adalah berdasarkan jumlah like tertinggi sepanjang tempoh pertandingan berlangsung.

Sebanyak 19 buah foto diterima dalam penyertaan Kategori Utama dan seramai 17 orang telah menyahut cabaran mengambil bahagian dalam Kategori Khas. Terdapat empat kriteria untuk menilai foto terbaik iaitu kualiti foto (30%), komposisi (30%), penghayatan tema (20%) dan persembahan (20%). Pihak penganjur telah melantik dua orang juri berpengalaman dari luar FKE iaitu;

- En. Md. Nor bin Mohamad Saleh, Jurufotografi Kanan PPPK UTEM
- Dr. Sani Irwan bin Salim, Pensyarah Kanan FKEKK

Senarai pemenang adalah seperti berikut;

Kategori Utama Fotografi FKE@Merdeka 2021

No.	Nama Pemenang	Kedudukan
1.	Dr. Nur Hakimah binti Ab Aziz	Pertama
2.	Pn. Atikah binti Razi	Kedua
3.	Dr. Ainain Nur binti Hanafi	Ketiga
4.	Pn. Siti Fatimah binti Kamarudin	Saguhati
5.	Pn. Normalisza binti Mustapa	Saguhati

Kategori Khas Fotografi FKE@Merdeka 2021

No.	Nama Pemenang	Undian Like
1.	Ir. Dr. Aida Fazliana binti Abdul Kadir	277
2.	Pn. Atikah binti Razi	275
3.	Ir. Dr. Fariz bin Ali @ Ibrahim	233

Dapatan daripada gambar-gambar yang menyertai pertandingan ini jelas dapat menzahirkan penghayatan aspirasi 'Malaysia Prihatin' dalam jiwa warga FKE. Secara tidak langsung ianya mempamerkan keampuhan semangat kemerdekaan dikalangan Keluarga Malaysia umumnya, tidak pernah luntur sungguhpun negara dalam misi mendepani pandemik Covid-19. Pihak urus setia juga menyediakan pautan laman Youtube untuk melayari video Photobook penyertaan Pertandingan Fotografi FKE@Merdeka 2021. <https://youtu.be/qFivi8IrvY8>

Syabas diucapkan kepada semua pemenang dan peserta Pertandingan Fotografi FKE@Merdeka 2021. Jutaan terima kasih juga kepada urus setia kecil pertandingan, panel juri dan semua Ahli Jawatankuasa Kebajikan dan Pembangunan Staf FKE untuk program-program sambutan Hari Kebangsaan Malaysia peringkat fakulti Tahun 2021.



FKE Bersama Misi Bantuan Sumbangan Barangan Mangsa Banjir

Oleh: Mohamad Riduwan Md. Nawawi, Suhana Ariffin dan Jawatankuasa Kebajikan dan Pembangunan Staf FKE

Dengan penuh iltizam #UTeMPrihatin dan semangat Jom menyumbang!; warga FKE turut serta dalam usaha mengumpulkan barangan keperluan untuk disalurkan kepada Misi Bantuan Sumbangan Barangan Mangsa Banjir yang dikelolai oleh Pusat Kolaborasi Industri & Masyarakat, Pejabat Naib Canselor (Jaringan Industri & Masyarakat) UTeM.

Inisiatif murni ini dimulai dengan pengumpulan dana sumbangan dari seluruh Warga FKE melalui Tabung Kelab FEESTAC. Hasil dana tersebut digunakan untuk membeli barang-barang keperluan oleh Jawatankuasa Kebajikan & Pembangunan Staf FKE. Antara barang yang menjadi keutamaan adalah seperti bekalan makanan, lampin bayi serta kanak-kanak 1-3 tahun, air minuman, barang pengurusan diri dan susu.

Penyerahan barangan telah dibuat kepada wakil PNCJIM yang bertugas iaitu En. Ahmad Hafiz Mohd Puad pada 22 Disember 2021. Bantuan sumbangan yang dikumpulkan dari seluruh warga kampus ini akan disalurkan kepada mangsa-mangsa banjir seperti di Lubuk China, Jelebu, Shah Alam, Hulu Langat dan Pahang.

Pihak Jawatankuasa Kebajikan dan Pembangunan Staf FKE ingin mengucapkan jutaan terima kasih kepada semua pihak yang telah menyumbang dana untuk membantu mangsa banjir. Semoga dengan sumbangan ini dapat memberi khabar gembira buat mereka yang sedang diuji dengan cabaran ini. Didoakan semoga usaha murni dan kebaikan yang dilakukan ini mendapat rahmat dari Allah SWT dan dilimpahkan rezeki yang berlipat ganda.

Sekalung penghargaan juga kepada urus setia yang telah membeli barang-barang sumbangan yang diketuai oleh Puan Suhana bersama, Encik Aziz, Encik Fuad dan Puan Normalisa. Diharapkan agar semua warga FKE akan sentisa dengan semangat #UTeMPrihatin untuk terus berbakti kepada agama, bangsa dan pertiwi.

e-Teaching Portfolio Workshop (1/2021)

By: Assoc. Prof. Dr. Mariam Md Ghazaly,
FKE Academic Portfolio Committee 2021 (Member)

Go Green! Go Paperless! An e-Teaching Portfolio Workshop was held at CLEAR room FKE on 24 April 2021 for 2 ½ hours. The workshop was organized by FKE Academic Portfolio Committee 2021. About twenty (20) FKE academic staffs attended the workshop and was led by Dr. Rahifa Ranum, the Head of FKE Academic Portfolio Committee 2021. Hands-on session was also held to expedite in the development of the e-Teaching Portfolio. This workshop provides an excellent platform for the academic staffs to create their own online teaching portfolio. It also aims to identify and select potential candidates for Innovative Teaching & Learning Research Day 2021 (InTReD'21), Track 6: e-Teaching Portfolio and for applying the Anugerah Akademik Universiti (AAU) 2021.





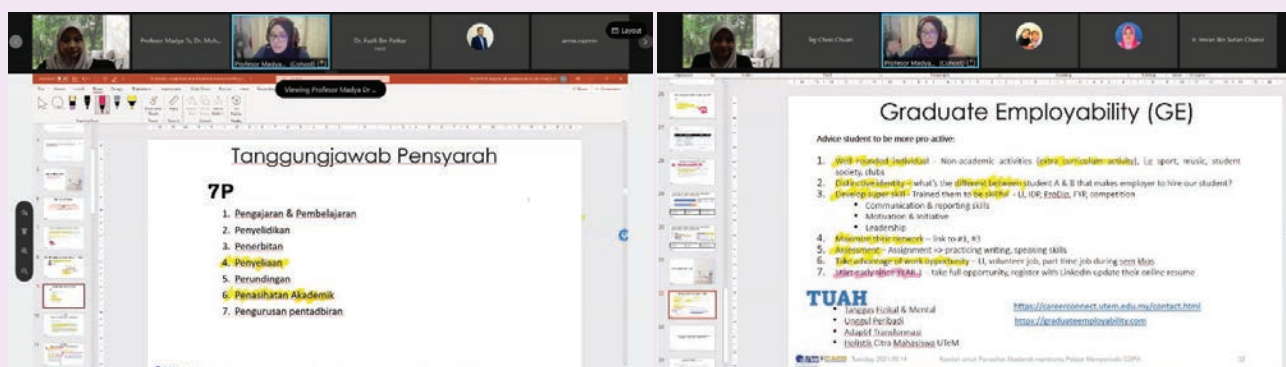
Methods for Academic Advisors to Help Students Improve CGPA

By: Atikah Razi, FKE Academic Advisor Committee 2021 (Member)

Empower the Academic Advisors!

A Webinar entitled "Methods for Academic Advisors to Help Students Improve CGPA Pointer" was held on 14 September 2021 for two and a half hours was led by the invited speaker, Assoc. Prof. Dr. Mariam Md Ghazaly, also a member of FKE Academic Advisors Committee 2021. The workshop was organized by FKE Academic Advisors Committee 2021 with full support from the Deputy Dean (Student Development)

of FKE, Ts. Dr. Hazriq Izzuan Jaafar and the Dean of FKE, Assoc. Prof. Ts. Dr. Muhammad Fahmi Miskon. About forty (40) FKE academic staffs attended the webinar. A hands-on session was also held to practice participant's understanding as an academic advisor by using a systematic method in assisting students to improve their Cumulative Grade Point Average (CGPA) especially for a student with CGPA below 2.3. Academic staff also were exposed to the challenges and issues for Graduate Employability (GE) of FKE students. This webinar provided an excellent platform to empower our academic advisor. Consequently, empowered our students, in accordance with TUAH UTeM.



Empower the Academic Advisors!

OBE Awareness Briefing (1/2021) - Knowledge Sharing Activities

By: Ts. Dr. Mohd Shahril Ahmad Khair, FKE Academic Portfolio Committee 2021 (Secretary)

An OBE Awareness Briefing Session was organized by FKE Academic Portfolio Committee on 5 May 2021. The two-hour briefing was given by Ir. Dr. Norazhar Abu Bakar. The main purpose of this briefing was to provide a better understanding (particularly to FKE academic staffs who had just come back from study leave) on the Outcome-Based Education.

A short quiz was given to all FKE academic staffs at the end of the session in order to evaluate their understanding related to OBE. The winner of this quiz is Dr. Nurdiana Nordin which bagged 15 points (full marks) followed by Puan Arfah Syahida Mohd Nor and Mr. Mohd Fairus Abdollah both scored 14 marks.

PROGRAM FKE SEPANJANG TAHUN 2021



TAJUK PROGRAM: KELESTARIAN ALAM SEKITAR MENUJU KAMPUS PINTAR

TARIKH: 20 OGOS 2021 (JUMAAT)

PLATFORM: FB KPKA UTeM

MASA: 9.30 PAGI – 11.30 PAGI

PAUTAN: <https://web.facebook.com/pkpautem/>

MODERATOR: Ts. Dr. MOHAMAD FANI SULAIMA (PENGURUS TENAGA UTEM)

PANEL:

1. PROF. MADYA Ts. JUHARI AB RAZAK (PENGARAH KPKA)
2. PROF. MADYA Dr. MUSTAHFAH MOHD TAHIT (TIMBALAN PENGARAH KPKA)
3. PUAN SITI ROHANA OMAR (PENGURUS AMALAN HIJAU)



TAJUK PROGRAM: DEVELOPMENT AND SIMULATION

OF BLDC MOTOR DRIVES USING MATLAB

TARIKH: 24 OGOS 2021 (JUMAAT)

PLATFORM: MICROSOFT TEAMS

MASA: 8.00 PAGI – 5.00 PETANG



TAJUK PROGRAM: MENCARI MALAM

LAILATUL QADAR YANG TERAGUNG

TARIKH: 29 APRIL 2021 (KHAMIS)

PLATFORM: BILIK MESYUARAT DAN

SECARA ATAS TALIAN WEBEX

MASA: 2.30 PETANG – 4.00 PETANG

PENCERAMAH: USTAZ MUHAMMAD

ISKANDAR SHAH BIN AB HAMID

PENGANJUR: JK KEBAJIKAN &

PEMBANGUNAN STAF, FKE



TAJUK PROGRAM: MODELLING OF

UNDERWATER REMOTELY OPERATED

VEHICLE FOR DEPTH CONTROL

TARIKH: 6 MEI 2021 (KHAMIS)

PLATFORM: FB FKE

MASA: 10.00 PAGI

PENCERAMAH: PROF. MADYA Dr. MOHD

SHAHRIEL BIN MOHD ARAS



TAJUK PROGRAM: SIX SIGMA: STATISTICS IS

NOT JUST ABOUT THEORY

TARIKH: 9 JUN 2021 (RABU)

PLATFORM: FB FKE UTEM

MASA: 2.30 PAGI – 4.00 PETANG

PAUTAN: <https://www.facebook.com/FKEUTeMMelaka>

PENCERAMAH: EN. NORAZMAN BIN ISMAIL

TAJUK PROGRAM: ETHICS AT
WORKPLACE
TARIKH: 25 JUN 2021 (JUMAAT)
PLATFORM: FB FKE UTEM
MASA: 3.15 PETANG – 4.45 PETANG
PAUTAN: <https://www.facebook.com/FKEUTeMMelaka>
PENCERAMAH: EN. AHMAD FAIZUL BIN
MOHD SAYUTI
PENGANJUR: SAFEER FAKULTI
KEJURUTERAAN ELEKTRIK, UTeM



TAJUK PROGRAM: TRANSFORMING

JAPANESE COMPANIES WITH

INDUSTRY 4.0 TECHNOLOGY

TARIKH: 7 APRIL 2021 (RABU)

PLATFORM: FB FKE

MASA: 2.00 PETANG – 4.30 PETANG

PAUTAN: <https://www.facebook.com/FKEUTeMMelaka>

MODERATOR: PROF. MADYA Ts. Dr. MUHAMMAD FAHMI BIN MISKON

(DEKAN FKE / EXCOM IEEE RAS MALAYSIA CHAPTER)

PANEL:

1. MR. MAHATHIR BIN MUHAMMAD RAFIE (CEO AIBOT SDN BHD)
2. MR. HAZI BIN HUSSEIN (OPERATIONAL DELIVERY MANAGER OF JAPAN HUB ENTERSERV SDN BHD)) PENGANJUR: FAKULTI KEJURUTERAAN ELEKTRIK, UTeM



TAJUK PROGRAM: MENTAL HEALTH TALK

TARIKH: 19 JUNE 2021

PLATFORM: GOOGLE MEET

MASA: 2.00 PETANG – 4.00 PETANG

PAUTAN: <https://meet.google.com/xcc-suqq-ixn>

PENCERAMAH: MS. KATHLEEYA NARISHAS

RICHARD

PENGANJUR: SAFEER FAKULTI

KEJURUTERAAN ELEKTRIK, UTeM



PROGRAM CHIT-CHAT RAMADAN

Oleh: Exco Kebajikan dan Kerohanian, SAFEE

Penganjuran Program Chit Chat Ramadan ini merangkumi tiga sesi perkongsian yang berbeza terdiri daripada tiga penceramah mengikut tarikh dan masa yang ditetapkan. Program Chit Chat Ramadan ini sejajar dengan satu aspek di dalam 8 Dimensi MyHEP iaitu Dimensi 2: Etika dan Rohani.

Sesi 1

Tajuk: Fadhilat Bulan Ramadan

Tarikh: 24 April 2021

Penceramah: Saudara Adhwa' bin Mohd Radhi (Pelajar FKE, UTeM)

Sesi 2

Tajuk: The Power of Tahajjud

Tarikh: 1 Mei 2021

Penceramah: Saudari Intan Najiha Akhmar binti Saharuddin (Pelajar Sarjana, UMP)

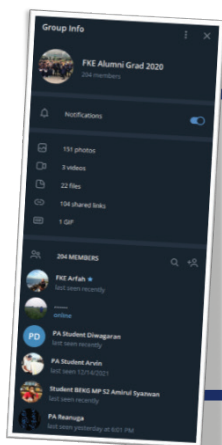
Sesi 3

Tajuk: Pecutan Akhir Ramadan

Tarikh: 8 Mei 2021

Penceramah: Ustaz Muhammad Syakirin bin Yuslam (Penceramah Motivasi)

Keunikan program ini adalah dua daripada penceramah berkenaan terdiri daripada pelajar sendiri. Ini secara tidak langsung dapat mewujudkan perkongsian dari pelajar kepada pelajar dan membuka ruang serta peluang kepada seluruh pelajar bagi menyertai aktiviti-aktiviti anjuran Exco Kebajikan dan Kerohanian, SAFEE. Program seperti ini dapat mengisi masa terluang bagi meningkatkan tahap kefahaman pelajar terhadap fadhilat Ramadan yang mampu memberi kebaikan dalam memupuk sifat sahsiah ke arah kebaikan serta membudayakan penghayatan sepanjang bulan Ramadan.



Telegram Graduan UTeM 2021

Kumpulan Telegram bagi Graduan tahun akhir, UTeM yang bakal bergraduasi pada tahun 2021 telah diwujudkan oleh UTeM bagi menangani isu kualiti dan pengangguhan Graduan. Pihak UTeM MEWAJIBKAN semua pelajar tahun akhir yang bakal bergraduasi untuk menyertai kumpulan telegram ini bagi memaklumkan kepada graduan berkaitan peluang kerjaya, pengesanan Graduan dan isu-isu kerjaya yang berkaitan.

Basic Hydraulics Technology Certification Training for Semester 2 2020/2021 Students

By: Mohd Rusdy Yaacob,
JK Penajaan Pendapatan FKE 2021

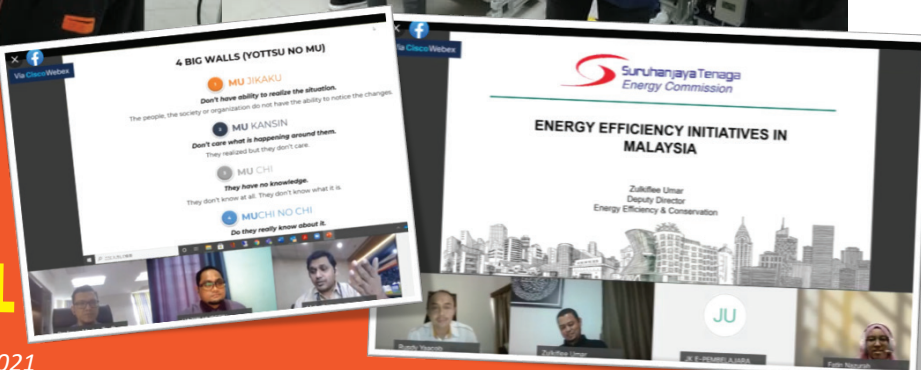
Following a long hiatus due to the Movement Control Order, FKE was back at conducting 4 series of Basic Hydraulics Technology certification training (BEKG 4710) throughout Semester 2 2020/2021. As usual, these trainings were held at the Bosch Rexroth's Licenced Training Center, located in Block E. A total of 80 students, comprising the third year BEKG and fourth year BEKM students have successfully attended the training. Being organized during the Recovery Movement Control Order (RMCO), each training session was conducted by adhering to strict guidelines and standard operating procedure (SOP) laid out by UTeM.

To recall, this training is one of the certification programs offered in UTeM, as an initiative in equipping future graduates with professional competencies, as an added value when entering the employment market. The training usually runs for 3 days, from Friday to Sunday, and is instructed by three certified trainers cum lecturers from FKE, i.e., Profesor Madya Dr. Rozaimi Ghazali, Dr. Muhammad Nizam Kamarudin and Dr. Mohd Rusdy Yaacob. The training consists of 13 modules with a well balance between the theoretical and practical knowledge. Participants who fully attend and complete all the tasks assigned will be awarded a certificate of competence, which is fully recognized by the Drive & Control Academy, Bosch Rexroth AG (Germany). Together with the Programmable Logic Controller (PLC) Level 1 & 2 (BEEE 3210), this training will be continuously conducted to serve the needs of FKE students having interest in PLC and hydraulics, respectively, prior to their graduation.



FKE Siri Webminar Industri 2021

Oleh: Mohd Rusdy Yaacob,
JK Khidmat Industri & Masyarakat FKE 2021



Buat julung kalinya FKE telah menganjurkan FKE Industrial Webinar Series 2021 pada Semester 2 2020/21. Program ini menampilkan LAPAN (8) siri webinar yang disampaikan oleh penceramah jemputan terdiri daripada Industrial Advisory Panel (IAP) Fakulti serta beberapa pengamal industri lain. Syarikat yang terlibat adalah Petronas, TNB, Aibots Sdn. Bhd., Ansell N.P Sdn. Bhd., TC Management Services Corporation Sdn Bhd, Medivest Sdn. Bhd., Suruhanjaya Tenaga Malaysia dan Penghantaran Hab Jepun, Objektif utama program adalah untuk memberi pendedahan secara mendalam kepada para pelajar mengenai teknologi terkini yang digunakan di industri melalui perkongsian pengalaman oleh pengamal industri, waima dalam situasi pandemik COVID-19 yang melanda. Selain itu, webinar ini juga bertujuan untuk meningkatkan kompetensi dan pengetahuan pelajar dalam menghubungkan teori yang dipelajari dengan aplikasi terkini yang terdapat di industri, serta mengukuhkan libatsama pihak industri termasuk IAP dalam aktiviti pengajaran dan pembelajaran di Fakulti. Setiap webinar yang dianjurkan turut dipetakan kepada beberapa matapelajaran di peringkat Diploma, Sarjana Muda dan Sarjana FKE. Webinar yang dipancarkan secara langsung menerusi laman rasmi Facebook FKE ini telah dihadiri oleh lebih 1300 peserta yang terdiri daripada para pelajar dan juga staf UTeM. Kesemua rakaman webinar juga masih boleh ditonton di laman Facebook yang sama. Program webinar ini dianjurkan oleh Jawatankuasa Khidmat Industri & Masyarakat FKE dengan kerjasama Persatuan Pelajar Fakulti Kejuruteraan Elektrik (SAFEF).



Innovative Competition Exhibition 2021 (ICE 2021)

Oleh: Jabatan Pengajian Diploma (DEK) FKE 2021

Buat pertama kalinya, Jabatan Pengajian Diploma Fakulti Kejuruteraan Elektrik (FKE), Universiti Teknikal Malaysia Melaka (UTeM) telah menganjurkan pertandingan Innovative Competition Exhibition 2021 (ICE 2021) untuk pelajar Tahun Satu Diploma Kejuruteraan Elektrik (DEK) bagi semester 2-2020/2021 yang telah mendaftar subjek Kemahiran Asas Elektrik (DEKP 1111). Pertandingan ini telah dikelolakan oleh tenaga pengajar yang mengajar subjek ini terdiri daripada Pn. Arfah Syahida Mohd Nor, Ts. Dr. Wan Mohd Bukhari Wan Daud, Dr. Aine Izzati Tarmizi, En. Musa Yusup Lada, Pn. Nurliyana Baharin, En. Mohamad Faizal Baharom dan Dr. Sazuan Nazrah Mohd Azam selaku penasihat bagi program tersebut. Pertandingan ini telah diadakan secara atas talian melalui platform Microsoft Teams pada 26 Jun 2021. Pertandingan ini merupakan salah satu instrumen penilaian yang digunapakai dalam mengetengahkan dan mencungkil kreativiti dan inovasi pelajar. Semasa proses penilaian, kemahiran insaniah pelajar, keberhasilan projek dan impak kepada industri dan masyarakat telah dinilai. Panel penilai dari kalangan Panel Penasihat Industri (IAP) FKE telah dijemput bagi menilai pertandingan ICE 2021, yang terdiri daripada Ir. Azizi Ahmad, En. Ghafar Jenal dan Ir. Effendi Muhamad@ Muhamad Yasin. Tujuan utama perlaksanaan pertandingan ICE 2021 adalah bertujuan untuk memenuhi instrumen penilaian yang sejajar dengan piawaian akreditasi dari Engineering Technology Accreditation Council (ETAC) iaitu penglibatan panel industri dalam aktiviti pembelajaran dan pengajaran, selain daripada pengukuhan elemen amalan terhadap kursus Asas Kemahiran Elektrik (DEKP 1111). Selain daripada mendapatkan proses penilaian yang lebih telus, lantikan panel dari kalangan IAP FKE adalah bertujuan bagi mendapatkan lebih banyak maklumat dan cadangan diatas keberhasilan projek pelajar. Setiap kumpulan terdiri daripada 2 orang pelajar dan para pemenang diberikan ganjaran hadiah dalam bentuk wang tunai serta sijil penyertaan. Hadiah tempat pertama adalah berupa wang tunai RM 150 , kedua RM100, ketiga RM70 dan semua pelajar yang terlibat diberikan sijil penyertaan untuk meningkatkan kompetensi pelajar. Jabatan Pengajian Diploma berharap pertandingan ini akan menjadi acara tahunan untuk pelajar diploma yang mengambil subjek DEKP 1111.

1st Place

Group ICE 02

Nama : Danial Hakim bin Pidrul Rosli
Matriks : D012010115
Kelas : 1 DEK S2-G1

Nama : Abdul Rahim bin Abdul Rahman
Matriks : D012010095
Kelas : 1 DEK S2-G1

2nd Place

GROUP = ICE 08

2nd Prize

3rd Place

GROUP ICE 10

MUHAMMAD AZRUL SHAFIQ BIN ZAMIL (D012010039)

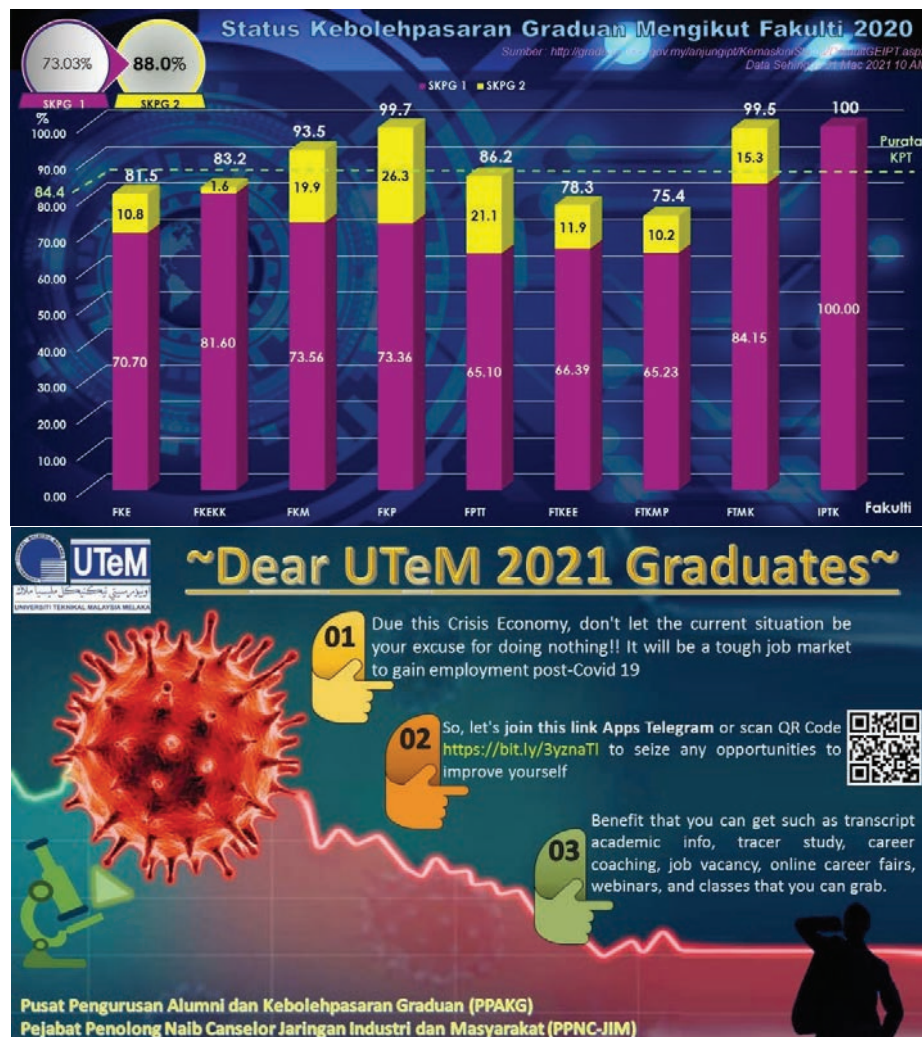
MUHAMMAD AMEER FIRDAUS BIN ROSLE (D012010004)

3rd Prize

Sistem Kajian Pengesanan Graduan (SKPG 1) Kementerian Pengajian Tinggi (KPT)

PJIM dan JK Alumni FKE telah berusaha untuk memastikan para graduan kita (pra dan pascasiswazah) mengisi Sistem Kajian Pengesanan Graduan (SKPG 1) KPT bagi mengkaji kebolehpasaran graduan UTeM. Tahun ini merupakan kali pertama pihak universiti/fakulti terpaksa memantau serta memastikan para graduan mengisi Kajian Pengesanan ini secara atas talian dan ia agak mencabar serta memerlukan komitmen yang tinggi.

Walau bagaimanapun, daripada 380 bakal graduan FKE, hanya 8 orang sahaja yang masih belum mengisi kajian ini. Setakat ini, dapatan Kajian Pengesanan Graduan yang telah dikumpulkan menunjukkan peratus kebolehpasaran graduan atau Graduate Employability (GE) pelajar FKE adalah 81.5%, melebihi daripada sasaran FKE.



SISTEM KAJIAN PENGESANAN GRADUAN UTeM SKPG 1 + SKPG 2 2020											
	FKE	FKEKK	FKM	FKP	FPTT	FTKEE	FTKMP	FTMK	IPTK	JUMLAH	%
Jumlah Graduan	380	263	382	305	384	369	325	568	3	2979	
Bekerja	199	117	228	198	306	237	213	461	3	1962	66.55
Melanjutkan Pengajian	72	81	98	79	10	19	7	84	0	450	15.26
Meningkatkan Kemahiran	14	2	16	10	2	9	9	7	0	69	2.34
Menunggu Penempatan	18	8	15	16	13	17	16	13	0	116	3.93
Jumlah GE	303	208	357	303	331	282	245	565	3	2597	87.97
Belum Bekerja	69	44	25	1	53	80	80	3	0	355	12.03
Jumlah telah respon	372	250	382	304	384	360	325	568	3	2948	98.96
% telah respon	97.89	95.06	100.00	99.67	100.00	97.56	100.00	100.00	100.00	98.96	
Sedang & Belum respon	8	13	0	1	0	9	0	0	0	31	1.04
% belum respon	2.11	4.94	0.00	0.33	0.00	2.44	0.00	0.00	0.00	1.04	
PENCAPAIAN % GE FAKULTI	81.5	83.2	93.5	99.7	86.2	78.3	75.4	99.5	100.0		
PENCAPAIAN % GE UTeM SKPG 1.0 + SKPG 2.0	88.0										

Pusat Pengurusan Alumni dan Kebolehpasaran Graduan (PPAKG) PPNCJIM - Sumber : Anjung IPT (01 Mac 2021) 10 AM

Kajian Pasaran Penawaran Pensijilan Pembelajaran Mendalam (Deep Learning)

Satu borang kajian pasaran penawaran Pensijilan Pembelajaran Mendalam (Deep Learning) dalam Penglihatan Komputer (Machine Vision) dengan Kerjasama pihak Skymind Malaysia, telah diedarkan untuk siswazah yang mengikuti Program Ijazah Sarjana Muda Kejuruteraan Mekatronik (BEKM). Pelajar akan didedahkan kepada dua subjek elektif iaitu Penglihatan Mesin (Machine Vision) dan Kepintaran Buatan (Artificial Intelligence) yang akan diambil dalam dua semester. Selepas pensijilan, pelajar akan dapat menerangkan prinsip asas pembelajaran dalaman (deep learning) di dalam penglihatan mesin (machine vision). Pelajar juga akan dapat menyelesaikan masalah berkaitan aplikasi pembelajaran dalaman (deep learning) dengan menggunakan perisian yang berkaitan dengan lapangan penglihatan mesin (machine vision).

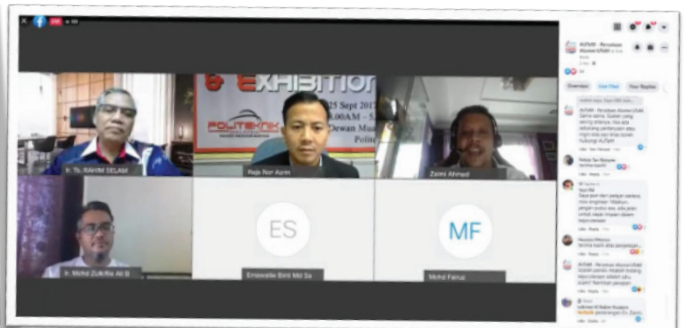
Kajian Pasaran ini dijalankan bagi mendapatkan maklum balas daripada pihak berkepentingan berkaitan kebolehpasaran pelajar yang mengambil pensijilan ini. Selain itu, menerusi kajian ini peluang dan kebaikan program pensijilan yang akan diperkenalkan kepada siswazah yang mengikuti Program BEKM di FKE, UTeM dapat dinilai.



Kejuruteraan Kerjaya Pilihan Saya

Satu program pendedahan berkaitan laluan serta peluang kerjaya kepada bakal graduan kejuruteraan telah diadakan pada 7 Ogos 2021 secara langsung di Facebook Alumni UTeM platform. Sesi perkongsian pengalaman dan kepakaran dari alumni FKE dan FKEKK ini adalah anjuran Persatuan Alumni UTeM (AUTeM), Pusat Pengurusan Alumni dan Kebolehasaran Graduan dengan kerjasama Pusat Jaringan Industri & Masyarakat (PJIM), Jabatan Pendidikan Negeri Melaka (JPN) dan GPMS Negeri Melaka.

Program ini bertujuan untuk mendapatkan tips dan nasihat berkaitan kerjaya dalam bidang kejuruteraan di antaranya ialah kelebihan graduan kejuruteraan serta cetusan daya fikir extraordinari ke arah global/glokal. Selain itu, para panel juga turut berkongsi manfaat hakiki apabila menjadi graduan kejuruteraan.

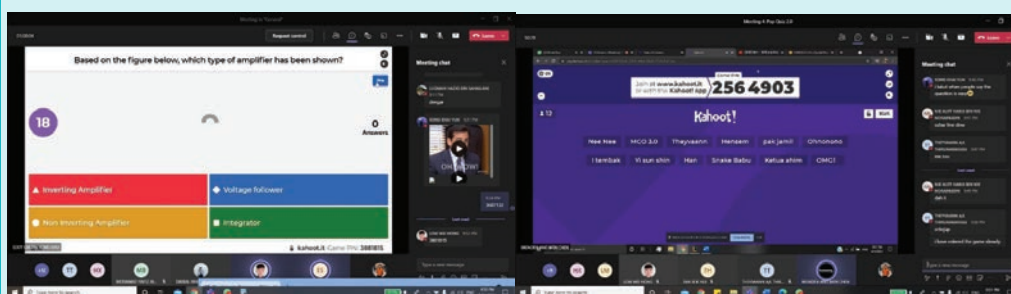


FKE Buddies (Mentor-Mentee Program)

Oleh: Exco Akademik dan Hal Ehwal Fakulti, SAFEE

Program FKE Buddies atau dikenali sebagai Mentor Mentee merupakan program yang dianjurkan julung-julung kali oleh Exco Akademik dan Hal Ehwal Fakulti, SAFEE dengan kerjasama Jawatan Kuasa Penasihat Akademik (JKPA) dan Majlis Perwakilan Pelajar (MPP) FKE kepada pelajar FKE UTeM. Program ini telah dirasmikan oleh Prof. Madya Ts. Dr. Muhammad Fahmi Miskon selaku Dekan FKE pada 21 April 2021. Program ini telah dijalankan sepanjang

Semester 2 Sesi 2020/21 dengan melibatkan seramai 207 pelajar FKE di mana 38 pelajar dilantik sebagai mentor dan 169 pelajar sebagai mentee. Penganjuran Program FKE Buddies ini menerapkan konsep satu (1) Mentor dan lima (5) Mentee, di mana kumpulan sasar Pelajar Tahun 1 Sesi 2020/2021 dibahagikan kepada beberapa kumpulan (Mentee) yang dipantau oleh sekumpulan Pelajar Tahun 2 yang dilantik sebagai Mentor. Pelaksanaan program ini adalah bersifat fleksibel tanpa mengganggu sebarang waktu perkuliahan. FKE Buddies menggunakan masa terluang untuk mewujudkan suasana pembelajaran yang sihat serta memupuk hubungan yang baik dikalangan pelajar "senior" dan "junior". Pertemuan dan perkongsian maklumat antara Mentor dan Mentee dijalankan secara atas talian menerusi pelbagai saluran yang sesuai seperti Microsoft Teams, Discord atau Webex mengikut keselesaan kumpulan FKE Buddies tersebut. Para FKE Buddies juga diberikan senarai aktiviti sepanjang semester dijalankan iaitu sesi "Ice Breaking", Perkongsian tips dan teknik menjawab soalan dari mentor, Perkongsian nota/soalan peperiksaan akhir kepada mentee, "Pop Quiz", dan tips untuk persiapan peperiksaan akhir. Program ini telah mendapat sambutan dan akan diteruskan pada sesi 2021/21.



Webinar Ethics at Workplace - Insight Sharing from HR Company to Potential Internship Students

By: Nur Ilyana Anwar Apendi, JK Latihan Industri (LI) FKE 2021 bersama FKE UTeM



If you think your lecturer is worse, wait until you meet your boss from the company, they might be worst!

A webinar entitled "Ethics at the workplace" was held on 25 June 2021. The speaker for this webinar is Mr. Ahmad Faizul

Ahmad Shayuti. He is the senior manager, Employee Services & General Affairs, Human Resources from Samsung SDI Energy Malaysia Sdn. Bhd. The host for this webinar is JKLI FKE 2021, in collaboration with the SAFEE team. The emcee for this webinar is Nur Syakirin Nizar. The platform for speaker and host is via Webex JK e-Learning & ICT FKE, while the webinar can be viewed by students via Facebook FKE UTeM Melaka.

This webinar aims to expose FKE students to the necessary code of ethics or procedures before undergoing their Industrial Training starting this July 2021. In this seminar, Mr. Ahmad Faizul emphasis that all internship students need to always ensure a code of ethics for always work with complete dedication, honesty, and trust in performing any tasks that have been directed. All internship students are supposed to benefit from their industrial training to improve interaction and communication skills.

Moreover, students are advised to leverage this industrial training experience and knowledge in choosing suitable employment after graduation later.

Participation consisted of Year 3 students from the BEKG and BEKM programs and students Year 2 for the DEK, which is a total of 371 students. The recorded version for this webinar can be watched again here: <https://www.facebook.com/FKEUTeMMelaka/videos/886286188897353>

High Impact Publications. CONGRATULATIONS to the writers!



Jenis Pengiktirafan: Published Buku (Publication)

Tajuk Buku: Real-Time Control Design and Simulation with Matlab/Simulink using Terasoft Electro-Mechanical Engineering Control System (EMECS)

Tarikh penerbitan: Ogos 2021

Penulis Buku:

- Prof. Madya Dr. Chong Shin Horng
- Prof. Madya Dr. Mariam Md Ghazaly
- Norhaslinda Hasim

Sinopsis Buku:

This book covers the data acquisition system and real-time application of control theory with MATLAB/Simulink. Content includes simulation and real-time experiments in the topics of open-loop system, closed-loop system, controller design, system identification and fuzzy logic. This book targets the student who is learning a control system engineering course or doing final year project research or postgraduate research. Even an experienced engineer, this practical and hands-on application guided will give you the confidence to troubleshoot a system or set up a new system. This book offers control theory and hands-on laboratories activities that are useful for them to start their control engineering experiences. Through this book, the reader will relate control theory and its applications to industry-relevant systems.





Recording of Official Videos for Laboratory Facility in Faculty of Electrical Engineering (FKE), UTeM by Department of Diploma Studies

By: Atikah Razi, Department of Diploma Studies, FKE 2021

Department of Diploma Studies successfully recorded, edited, and published few official videos of laboratory facility in Faculty of Electrical Engineering in conjunction with the Virtual Accreditation Visit by Engineering Technology Accreditation Council (ETAC) on 19-20 May 2021. Behind the scenes of the video recording was led by the Head of Department of Diploma Studies, Dr. Sazuan Nazrah Mohd Azam, hosted by Atikah Razi, Lecturer from Department of Diploma Studies and edited by Dr. Mohamad Faizal Baharom, Senior Lecturer from Department of Diploma Studies.

As for the Standard of Procedure for laboratory implementation due to the Recovery Movement Control Order (RMCO) in April 2021, only half from the total number of the workstation can be occupied. This is to ensure the safety of the laboratory users by allowing more space for social distancing between each student during the laboratory session. Each laboratory provides the QR code for MySejahtera apps and complete with a body temperature scanner, a bottle of hand sanitizer, signage for non-occupied station for social distancing, arrow signs on the floor to indicate the IN and OUT direction, an emergency kit, and a fire extinguisher.

The selected laboratory for the official videos recording process were Pneumatic & Hydraulic Laboratory and Energy Efficiency Laboratory, led by Assistant Engineer, Mr. Mohd Syakrani Akhbar, Programmable Logic Controller (PLC) and Control Processing Laboratory, led by Assistant Engineer, Mr. Norhisham Abu Seman, Power Electronics Laboratory, led by Assistant Engineer, Mr. Mohd Fadhil Ibrahim and lastly Electrical and Electronic 1 Laboratory, led by Assistant Engineer, Mr. Syed Aliff Syed Ariffin.

Virtual Online Visit (VAV) by Engineering Technology Accreditation Council (ETAC) for Diploma in Electrical Engineering Programme

By: Atikah Razi, Department of Diploma Studies, FKE 2021



Virtual Accreditation Visit (VAV) by Engineering Technology Accreditation Council (ETAC) was successfully conducted by Department of Diploma Studies for the Diploma of Electrical Engineering Programme. This accreditation exercise was fully supported by Pusat Pengurusan Strategik, Kualiti & Risiko (PPSKR) UTeM. The VAV ETAC was held on 19 and 20 May 2021, started with Opening Ceremony by the Top Management of UTeM, Opening Ceremony at the Faculty by the Dean of FKE, Assoc. Prof. Ts. Dr. Muhammad Fahmi Miskon and Head of Department of Diploma Studies, Dr. Sazuan Nazrah Mohd Azam.

Accreditation panels assigned for the programme were Assoc. Prof. Ir. Dr. Mohd. Khairil Rahmat from UniKL, Assoc. Prof. Dr. Mohd Azrik Roslan from UNIMAP and Ir. Jeewa. The visit involved the overview of the faculty and to evaluate the programme, including the course files and laboratory implementation during COVID-19, interview session with students, administrative and technical staffs, academic staffs, stakeholders and safety officer.

Supporting accreditation committee was established among the academic staffs of Department of Diploma Studies, administrative staffs and led by the Head of Department of Diploma Studies, Dr. Sazuan Nazrah Mohd Azam for a continuous process of gathering documents around 1 and half year (1 ½ years) period. Under this supporting committee, several supporting teams such as Filing Team, Technical Team, Administrative Team, Slide Presentation Team, Video Laboratory Team and Curriculum Structure Team were established to successfully delivered all nine (9) criterions requested by the ETAC standards. The criterions were General Information, Programme Objectives, Programme Outcomes, Academic Curriculum, Students, Academic and Supporting Staff, Facilities, Quality Management Systems and List of Appendices.

Advancement of Technology Toward Digital Agriculture

By: Ir. Dr. Anuar bin Mohamed Kassim

Addressing food security issues in light the rapid population growth is an increasingly important global challenge. More food needs to be produced in the next 50 years that has been over the past 10,000 years (2008 UN sustainable development forum). There is evidence from the Qur'an and Hadith regarding farming. When a person does agricultural activities, it will make him better understand the true nature of trusting in Allah SWT who has the power to turn on and off. If Allah SWT destined a plant to live, the plant will live and not disappoint the farmer. However, if Allah wants the opposite, then that is Allah SWT's destiny for the farmer.

That is the power of Allah SWT as He said:

Meaning: *"And it is He who sends down rain from the sky, and We produce thereby the growth of all things. We produce from it greenery from which We produce grains arranged in layers. And from the palm trees – of its emerging fruit are clusters hanging low. And [We produce] gardens of grapevines and olives and pomegranates, similar yet varied. Look at [each of] its fruit when it yields and [at] it's ripening. Indeed in that are signs for a people who believe."*

(Surah al-An'am: 99)

Anas bin Malik RA said that the Prophet SAW said:

Meaning: *"Any Muslim who cultivates then eats from it birds, humans or animals none other than for him as alms."*

In the era of the industrial revolution (IR) 4.0, the agricultural sector could not be stand-alone by the expert of the agricultural studies. The engineers, farmers, agronomists, IT developers, policymakers should be work together to ensure the sustainability of the food for the future. Based on the 17's Sustainable Development Goals established by the United Nations, agriculture plays a big role to achieve a better and more sustainable future for all. It also support by the priority areas set by many ministries such as Ministry of Agriculture and Food Industries, Ministry of Higher Education, Ministry of Science, Technology, and Innovation of Malaysia.

The traditional method of farm management is using higher labor, cost, time, and not environmentally friendly. The soil samples are taken manually at 1 to 3 hectares per sample. The conventional practice for decision making is only based on soil laboratory analysis with very delicate and sensitive devices.

The soil variabilities such as soil micronutrients, soil moisture, soil compaction, crop diseases, growth, etc are key parameters that change short term variabilities that can change within a season and between season shown in Fig. 1.



Fig. 1 Managing variability in the agricultural field

Therefore, the farm management techniques by using precision agriculture are proposed. Precision agriculture is a relatively new approach in crop production that relays on advanced technologies to manage within-field variability by applying the right amount of farm input in the right place and time. It has been proven to increase crop production sustainably and to improve food quality while reducing environmental contamination and waste.

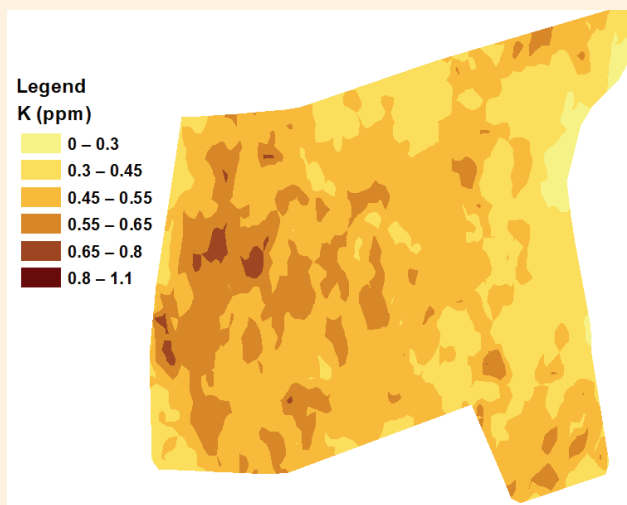
A novel measurement system by using a combination of multi-sensors that can be used to measure the soil and crop condition is expected to be developed and can be used at the offline and online systems. The effectiveness and accuracy of the soil and crop data that will be collected and measured could make better farm management and secure the farm outputs. There are some studies made in Belgium to measure the micronutrients such as available potassium, K in soil by using the passive gamma-ray spectrometer and visible NIR spectrophotometer to measure the moisture content and the phosphorous (P) shown in Fig. 2. The system is developed by using the proximal soil sensing system with the load and depth sensor to measure the key physical parameters along with the data acquisition system and the DGPS.



Fig. 2 Experiment done by using a passive gamma-ray spectrometer and visible NIR spectrophotometer to measure the micronutrients in soil

Two calibration models to predict Ka cross the field were developed and compared. First, a simple third-order polynomial function (3DPF) was established

between the sensor reading of Ka and laboratory-measured Ka with $R^2 = 0.69$. Second, a partial least squares regression (PLSR) model linking gamma-ray spectra and laboratory-measured Ka. The collection of soil samples for laboratory chemical analyses followed the W-shape scheme. Although a relatively small number of samples (45 samples) were used for the development of the PLSR calibration model, the cross-validation analyses have resulted in a very good performance with R^2 of 0.85, residual prediction deviation (RPD) of 2.67, and root mean square error of cross-validation (RMSECV) of 2.29 (mg/100g). Maps of Ka comparing between the 3DPF and PLSR show great similarity and with the map developed using the data of the laboratory analysis. The calculated variable rate fertilizer showed the 3DPF and PLSR to reduce the amount of K₂O fertilizer applied by 15 kg/field and by 2 kg/field, compared to the laboratory chemical soil analyses.



a) Online measurement



b) Soil analysis in the laboratory

Fig. 3 Result of the available potassium, K in soil by using a passive gamma-ray spectrometer

This research also can be applied in the agriculture industry in Malaysia for example in paddy, palm oil, rubber, chili peppers, fresh fruits, etc. Figure 4 shows the soil nutrient measurement with MARDI in Seberang Perak has been done in the paddy field. The application of drones and the robotic system also has great potential to be used in the agricultural field. Besides, the application of precision technology in high tech agriculture in Malaysia will reduce the usage of the inputs while increasing farm production yields. At the same time, it can reduce the burden of the farmer and also can encourage the youth to venture into the agricultural industry.



Fig. 4 Soil nutrient measurement with MARDI in Seberang Perak

ELEKTRIK BECA (eBECA) - INOVASI PENYELIDIKAN UTeM KE ARAH PENGKOMERSILAN DAN MEMACU SEKTOR PELANCONGAN (RnD)

1.0 INTRO/GABUNGAN

eBeca mula di bangunkan pada tahun 2016 di makmal ADSP, Fakulti Kejuruteraan Elektrik (FKE) oleh sekumpulan penyelidik REAT, CeRIA yang di ketuai oleh Prof. Madya Ir. TS. Dr. Abdul Rahim Abdullah. EBeca yang di dihasilkan itu telah mendapat tempat di hati Tuan Yang Terutama (TYT) Tun Datuk Seri Utama Dr. Mohd Khalil bin Yaakob sekali gus melancarkan perasmian eBeca semasa Majlis Konvokesyen ke-12 UTeM, yang telah mendapat liputan meluas bukan sahaja media masa dan arus elektronik, malahan telah menjadi buah mulut di kalangan warga universiti dan komuniti setempat.

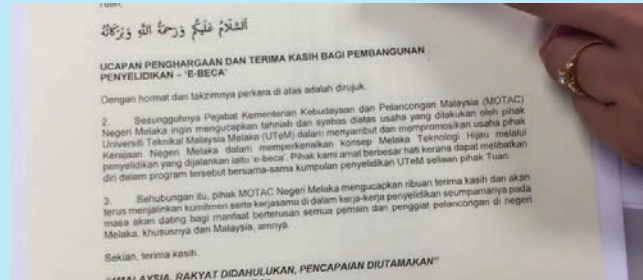


Tuan Yang Terutama (TYT) Tun Datuk Seri Utama Dr. Mohd Khalil bin Yaakob menandatangani secara rasmi pelancaran Beca Elektrik UTeM pada tahun 2016



Pelancaran Beca Elektrik UTeM di Melaka Hari Ini (2016)

Menyedari kepentingan membina model perniagaan yang komprehensif dan perancangan pengkomersilan yang menyeluruh bagi memantapkan hasil penyelidikan ini dan menyalurkan sumbangan kepada komuniti, kumpulan penyelidikan ini telah bergabung dengan penyelidik daripada Fakulti Pengurusan Teknologi dan Teknousahawanan, yang di ketuai oleh Prof. Madya Dr. Haslinda Musa. Bermula gabungan tersebut, kumpulan penyelidikan ini terus mengorak langkah dengan jalinan hubungan pelbagai agensi dan NGOs tempatan, serta mendapat penghargaan dan pengiktirafan termasuk Kementerian Sains, Teknologi dan Inovasi (MOSTI), Kementerian Pelancongan dan Kebudayaan (MOTAC), Tourism Malaysia, Yayasan Inovasi Malaysia (YIM), Pusat Sains & Kreativiti Terengganu (PSKT) dan banyak lagi melibatkan pelbagai aktiviti peringkat negeri dan nasional.



Surat Penghargaan Kementerian Pelancongan dan Kebudayaan Malaysia (MOTAC) Negeri Melaka kepada Beca Elektrik UTeM

Idea untuk menarik taraf beca sedia ada telah dicetuskan dalam usaha memartabatkan beca sebagai pengangkutan awam di negeri Melaka yang banyak membantu dari sektor pelancongan khususnya sejak dari dahulu lagi. Untuk itu, universiti yang sentiasa menerajui penyelidikan dalam pelbagai bidang turut tidak ketinggalan dalam pembangunan sektor pelancongan dan kebudayaan Malaysia amnya dan negeri Melaka khususnya.

2.0 OBJEKTIF DAN FUNGSI

Antara Objektif utama penghasilan eBeca selain mampu memberikan nilai tambah teknologi baru kepada konvensional beca sedia, juga mengetengahkan inovasi pencipta muda di UTeM menggunakan sistem yang lebih efektif dengan kuasa solar dan elektrik selain menyokong Tema Negeri Melaka Bandaraya Hijau dengan menjanjikan persekitaran yang lebih bersih. EBeca ini mampu membuka lebih banyak pilihan pengangkutan bagi pelancongan ke Negeri Melaka, selain memudahkan operasi mengayuh beca dan memberikan lebih banyak peluang pekerjaan dan perniagaan kepada pengusaha beca negeri Melaka.

Beberapa kelebihan utama eBeca ini terletak pada struktur, kawalan, teknologi dan juga sistem sokongan/selenggaraan. Dari segi Struktur, eBeca ini dibina di makmal penyelidikan di UTeM menggunakan teknologi kerangka yang lebih ringan tetapi kukuh dengan kandungan utama keluli dan aluminium komposit. Dari segi kawalan pula, kelebihan eBeca ini terletak pada sistem solar yang berupaya menukar kuasa solar kepada kuasa motor elektrik.

EBeca ini juga menawarkan sistem paparan LED yang berfungsi sebagai medium penyampaian maklumat, pemasaran dan pengiklanan. Pengguna eBeca juga ditawarkan dengan kelebihan pesanan melalui sistem aplikasi langganan eBeca, dan ditawarkan kepada persatuan beca dan kelab beca negeri Melaka samada melalui sewaan atau belian, dimana pengusaha beca

boleh memilih untuk tambahbaik beca sedia ada mereka mahupun pembelian eBeca baru dengan semua spesifikasi pilihan yang ditawarkan pada harga yang paling minimum dan mampu milik. Selain itu, sistem sokongan dan selenggaraan eBeca juga di tawarkan kepada semua pelanggannya.

Diharapkan hasil penyelidikan dan pengkomersilan eBeca yang diketengahkan dapat memberikan impak yang besar kepada semua pihak terutama masyarakat di negeri Melaka yang bersejarah ini.

3.0 AKTIVITI PROMOSI

Di awal pengkomersilannya, iaitu pada Oktober 2017, kumpulan penyelidik ini telah membawa eBeca menyusuri bandaraya Melaka bermula dari bangunan Stadthuys sehingga A'Famosa dalam usaha memperkenalkannya kepada komuniti setempat dan pelancong. Turut serta dalam usaha ini adalah wakil pegawai daripada Kementerian Pelancongan dan Kebudayaan Malaysia (MOTAC) dan pengusaha-pengusaha beca negeri Melaka. Rata-rata pengusaha beca menyambut baik dan menyokong peningkatan teknologi ke atas beca konvensional mereka yang telah sekian lama diusahakan secara tradisional. UTeM yang sentiasa menerajui penyelidikan dalam pelbagai bidang, turut menyumbang melalui projek eBeca ini dalam pembangunan pelancongan dan kebudayaan Malaysia amnya, dan negeri Melaka khususnya.

Semarak sektor pelancongan
Beca elektrik ciptan UTeM guna tenaga solar

DORIAN TUNGGAL di Dis. - Universiti Teknikal Malaysia Melaka (UTeM) dalam usaha memperkenalkan beca elektrik menggunakan tenaga solar kepada komuniti setempat dan pelancong.

Usaha itu dibantu oleh Menteri Pusat Kewangan UTeM (COE) dan Prof. Datuk Ir. Dr. Abu Abdullah bersama sekumpulan penyelidik yang telah menyertai Bazar Melaka bagi tujuan usaha tersebut.

Beca elektrik berjenis solar telah dibina sebagai e-beca yang mampu meningkatkan taraf beca sedia ada di Melaka. Beca ini dibina dengan menggunakan tenaga solar dan tenaga elektrik yang dihasilkan oleh panel solar.

Prof. Datuk Ir. Dr. Abu Abdullah berkata, beca elektrik ini akan membantu meningkatkan taraf beca sedia ada di Melaka. Beca ini juga akan membantu meningkatkan taraf beca sedia ada di Melaka.

Prof. Datuk Ir. Dr. Abu Abdullah berkata, beca elektrik ini akan membantu meningkatkan taraf beca sedia ada di Melaka. Beca ini juga akan membantu meningkatkan taraf beca sedia ada di Melaka.

Hasil penyelidikan UTeM
E-beca tingkatkan taraf hidup pengayuh beca seluruh negara

DORIAN TUNGGAL di April - Kumpulan Penyelidik eBeca UTeM (UTeM) telah melancarkan eBeca di seluruh negara. Beca ini akan membantu meningkatkan taraf hidup pengayuh beca di seluruh negara.

Prof. Datuk Ir. Dr. Abu Abdullah berkata, eBeca ini akan membantu meningkatkan taraf hidup pengayuh beca di seluruh negara. Beca ini juga akan membantu meningkatkan taraf hidup pengayuh beca di seluruh negara.

Prof. Datuk Ir. Dr. Abu Abdullah berkata, eBeca ini akan membantu meningkatkan taraf hidup pengayuh beca di seluruh negara. Beca ini juga akan membantu meningkatkan taraf hidup pengayuh beca di seluruh negara.

EBea UTeM sekali lagi muncul di dada akhbar apabila sumabangan kepada komuniti Becu di Kuala Terengganu mendapat sambutan

Kumpulan ini juga pernah dijemput bersiaran di Selamat Pagi Malaysia di saluran TV1 pada 21 Mei 2018 (Isnin) jam 8.00 pagi. Slot ini menampilkan Prof. Datuk Ir. Dr. Mohd Jailani Mohd Nor, mantan Timbalan Naib Canselor (Penyelidikan & Inovasi) serta Prof. Dato' Abu Abdullah, mantan Ketua Pusat Kecemerlangan pada masa tersebut, membincangkan "eBeca UTeM menaiktaraf Ekonomi Penarik Becu Seluruh Negara". Pada 23 Mei 2018 pula, satu slot temubual secara langsung menerusi telefon bersama Prof. Datuk Dr. Abu telah ke udara pada jam 11.30 pagi di radio Negeri FM 92.6.

UtEM
Saksikan spm@tv1
Nadi Seri Pagi
21 Mei 2018
8.00 Pagi

BERSAMA PANEL
YBhg. Prof. Datuk Ir. Dr. Mohd Jailani bin Mohd Nor
Timbalan Naib Canselor, Penyelidikan & Inovasi
Prof. Dato' Dr. Abu bin Abdullah
Ketua Centre of Excellent UTeM

BAGI MENGULAS LANJUT
E BECA UTeM MENAIK TARAF EKONOMI PENARIK BECA SELURUH NEGARA

Beca Elektrik UTeM bersiaran di Selamat Pagi Malaysia pada 21 Mei 2018



Beca Elektrik UTeM dikunjungi oleh Exco Perumahan Kerajaan Tempatan & Alam Sekitar, Kerajaan Negeri Melaka, Datuk AR Haji Ismail Othman pada April 2018

Beca Elektrik UTeM sentiasa muncul di dada akhbar sepanjang tahun 2017 dan 2018

Susulan kejayaan menaiktaraf sebuah beca elektrik (eBeca) di negeri Melaka, team eBeca UTeM melangkah setapak lagi membantu komuniti beca di negeri Terengganu. Dengan kerjasama Kementerian Pelancongan dan Kebudayaan (MOTAC) Terengganu, seorang penarik beca bernama Abdullah Bin Muhamad yang berusia 62 tahun, telah menerima sumbangan penyerahan eBeca UTeM yang dinaiktaraf drp beca tradisional kepunyaan beliau, pada 5 April 2018 disaksikan oleh beberapa penarik beca sekitar Kuala Terengganu.





Beca Elektrik UTeM juga di jadikan kenderaan membawa KSU semasa Majlis Penutup UTeMEX 2018

Elektrik Beca (eBeca) sekali lagi menjadi kebanggaan Universiti Teknikal Malaysia Melaka (UTeM) hasil penyelidikan berimpak tinggi. Selepas sumbangan menaiktaraf sebuah beca elektrik di Kuala Terengganu pada tahun 2018, pasukan penyelidik ini diberikan penghormatan mempamerkan hasil penyelidikan mereka atas jemputan Yayasan Penyelidikan Antartika Sultan Mizan (YPASM) di bawah Kementerian Tenaga, Sains, Teknologi, Alam Sekitar dan perubahan iklim (MESTECC) dan Kerajaan Negeri Terengganu, sempena Minggu Sains Negara berlangsung di Pusat Sains dan Kreativiti Terengganu (PSKT) bermula 7-9 April 2019. Ekspo Sains peringkat Negeri Terengganu yang berlangsung selama 3 hari di PSKT ini telah mencuit hati peminatnya di Kuala Terengganu. Pengunjung berpusu-pusu mengambil giliran mencuba merasai kayuhan eBeca dan tidak kurang menjadi penumpang. Turut sama merasai keunikan eBeca UTeM adalah Yang Berhormat Ahmad Shah Muhamed, ADUN Bandar Negeri Terengganu. Kumpulan penyelidik ini telah ditemuramah oleh SENILAM TV PSS SMK SERI NILAM dan disiarkan di saluran promosi mereka.

4.0 AWARD/ GERAN

Kemuncak kejayaan beserta anugerah geran telah diperolehi oleh pasukan ini, di mana pada 21 hingga 23 Dec 2020, PERTANDINGAN BECA ELEKTRIK TERENGGANU telah berlangsung di negeri itu. Hasil persembahan kumpulan ini di jayakan oleh Prof. Madya Ir. Ts. Dr. Abdul Rahim Abdullah (FKE), Prof. Madya Dr. Haslinda Musa (FPTT), En. Mohd Bazli Bahar (FKE), En. Mohd Yusri Jamil (FKE), dan En. Shamsudin Ithnin (Penerbit), berjaya merangkul Johan Pertandingan Inovasi Beca Terengganu dan menerima Geran Pembangunan Inovasi Program Berimpak Tinggi 6 berjumlah RM90,000.00 - Inovasi Inklusif daripada Yayasan Inovasi Malaysia dengan kerjasama SME Corp Malaysia.



Kumpulan Projek Solar Powered Electric Trishaw (eBeca UTeM) yang menggondol tempat pertama (JOHAN) Pertandingan Inovasi Beca Terengganu

Projek Solar Powered Electric Trishaw (eBeca Pok Loh) Terengganu ini kemudiannya telah dijemput bersiaran langsung di Radio GEGAR / THR Gegar, bersama DJ Shah dan Mek Zura.

Kumpulan ini sekarang akan melangkah setapak lagi ke hadapan apabila mendapat penghormatan Kerajaan Negeri Terengganu Bersama MOSTI dan Yayasan Inovasi Malaysia (YIM) bagi menjayakan Program Pendigitalan Bandar Terengganu, termasuk kelestarian penggunaan eBeca di negeri tersebut.

FKE Strategic Initiatives

Structured CDP and FIE

UTeM has the aspiration to have the Technology at University Advancing Industry and Society (T.U.N.A.I). The realization of UTeM's T.U.N.A.I aspiration very much depend on the capabilities of the human capital at UTeM and what they do.

For this reason, the Faculty of Electrical Engineering (FKE) focuses on the Structured Competency Development Program and Field and Industrial Exploration Program. Figure 1 shows a model of FKE Innovation Ecosystem. At the core of the ecosystem is Competency Development and Field Exploration. Competency Development Program has the objective to systematically increase the number of competent human resources among staff and students to fulfil the university and industrial needs. The competency of the staff and students is continually increased until they become competent people, hence are capable to contribute.

“Competency is having the knowledge, skills and ability to perform a task successfully.”

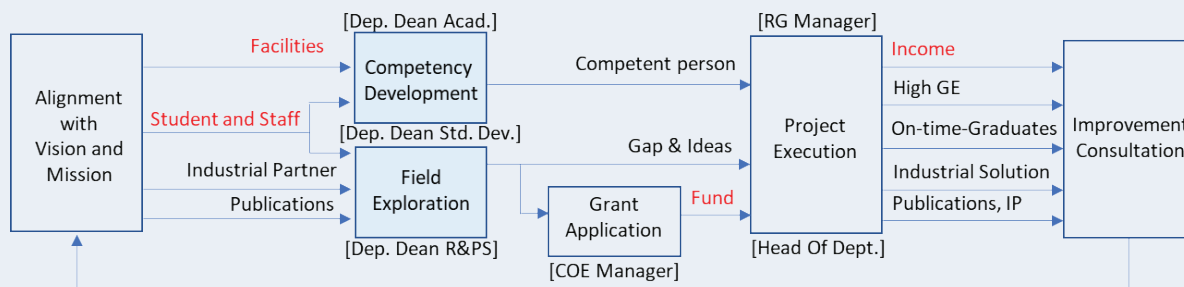


Figure 1: FKE Innovation Ecosystem

Field refers to the area of discipline related to FKE and industry refers to a group of manufacturers or businesses that produce a particular kind of goods or services. Field and Industrial Exploration Program has the objective to systematically explore the extent of challenges and solutions in related fields and industry. Strategic alliances will be formed to work together in analysing and documenting the gap in existing knowledge and practice. Through the program, a gap of knowledge and ideas that are impactful to the industry and society will be produced and is useful for getting a high impact grant.

Impactful ideas, competent personnel and the fund from the grant are the core element of executing a successful industrial and societal project. Such a project, in the form of a research project or consultancy project, has the impact of providing income to the faculty, increasing graduate employability, ensuring students graduate on time, solving an industrial and societal problem, as well as producing high impact publication and intellectual properties.

These outputs should be the indicator for improvement of the program, so the Innovation ecosystem will continually improve from time to time and is ensured to be aligned with UTeM's vision and mission. Not only this is important to uphold UTeM's purpose, but also so that with the one aligned effort, we can fulfil our responsibility in research and development, teaching and learning, as well as consultancy (RDTC). For example, the industrial or community project is aligned with the title of the final year project or postgraduate research project, becomes assignment and examination questions for related courses, increase the value of the student who participates in the project, provide industrial placement and many others.

Some of the main principles that will drive the success of the program are the following points. Perhaps it would be best to keep the brevity of this article and discuss these points in detail in other opportunities.

Principles:

1. Must uphold value-based leadership based on Ihsan (excellence) as narrated in the hadith by prophet SAW (Muhammad, 570-632)
2. Instill good habits by changing identity and not by targeting to achieve KPIs as discussed in Atomic Habits (James Clear, 2018)
3. Constantly change for better as suggested in Kaizen (Misaaki Imai, 1985)
4. Maintain focus by removing distractions as suggested in You already know how to be great (Alan Fine, 2010)
5. Explore uncontested market space, by offering high value (by Raising and Creating something) at a low cost (by Eliminating and Reducing something) as discussed in Blue Ocean Strategy (Kim, Mauborgne, 2004)
6. Take time to sharpen the saw as suggested in the 7 habits of Highly Effective People (Stephen Covey, 1989)

It is hoped that this humble strategy will steadily but surely bring the best out of FKE.

Associate Professor Ts. Dr. Muhammad Fahmi Bin Miskon
6th of September 2021

FKE Innovation and Commercialization 2021 (Achievements)

By: Ir. Ts. Dr. Anuar bin Mohamed Kassim, Head of JK Inovasi dan Pertandingan FKE

Along with teaching and learning activities and research activities carried out by the staff and students in the Faculty of Electrical Engineering (FKE) of Universiti Teknikal Malaysia Melaka (UTeM), all staff and students are encouraged to participate in innovation and commercialization activities. By the involvement of staff and students in exhibitions and competitions, the visibility of FKE along with UTeM will be increased, thus will be the global prominent university in the world. Since January 2021, various exhibitions and competitions have been held nationally and internationally. Table 1 shows the summary of the achievement that has been participated by staff and students from the Faculty of Electrical Engineering (FKE, UTeM) in the exhibition and competition from January to July 2021.

Table 1: Achievement of staffs and students from January to July 2021

N o.	COMPETITION / EXHIBITION	LEVEL	AWARD
1	Malaysia Technology Expo (MTE) 2021	International	1 Special Foreign Award by International Federation of Inventors' Association (IFIA) 2 Gold award
2	Creation, Innovation, Technology & Research Exposition (CITREX) 2021	National	1 EE Best Innovation Award 1 Gold award 3 Silver award
3	Malaysia Social Innovation Accelerator Program (MYSIAP)	National	3 pre-commercialization grant RM40000 to each awardee
4	Innovate Malaysia Design Challenge 2021	National	Winner (Sarawak Energy Design Challenge) Second prize (Keysight Track Challenge) Consolation (CREST Design Challenge) Consolation (Microsoft Track Challenge)
5	Innovation And Invention Competition Through Exhibition iCOMPEX (National)	National	1 Gold award
6	1st Technology and Research Exhibition (TREX) 2021	National	Best Poster Award Best Video Award Gold Award

The Malaysia Technology Expo (MTE) 2021 is a prominent and global recognized competition that has been held every year. In 2021, the exhibition has been held in 22nd to 26th March 2021 through virtual platform by PROTEMP due to spreading of pandemic CoVID-19. The Commercialization Center of UTeM has selected 20 award winning projects through Jejak Inovasi UTeM in December 2020 to participate in this prestigious exhibition. Overall achievement of UTeM, we got 2 Special awards from Special Foreign Award by International Federation of Inventors' Association (IFIA) and Best Category Award, 9 Gold awards, 9 Silver awards and 2 Bronze awards. From the list, there are 2 projects are selected from FKE which both of the project has been awarded gold medal for their inventions and one special award. Table 2 shows the awardees and the inventions from MTE 2021.

Table 2: Awardees and the inventions from MTE 2021

No.	Researcher	Innovation Title	Award
1	Ir.Ts. Dr. Anuar bin Mohamed Kassim	Intelligent Wearable Device For Blind Person	Gold Award Special Foreign Award by International Federation of Inventors' Association (IFIA)
2	Ts. Dr. Mohamad Fani bin Sulaima	OptiDr-Simulator	Gold Award

On the other hand, the FKE researcher also participated in the Creation, Innovation, Technology & Research Exposition (CITREX) 2021. This exhibition is organized by Universiti Malaysia Pahang which held virtually on 1 March 2021- 7 April 2021. A total of twenty-four (24) innovation product entries from UTeM were submitted and UTeM achieved 100% victory with 2 special awards, 10 gold medals, 11 silver medals and 3 bronze medals. From this list, FKE researchers had awarded 1 special award, 1 gold award and 3 silver award. Table 3 shows the awardees and the inventions from CITREX 2021.

Table 3: Achievement in CITREX 2021

No.	Researcher	Innovation Title	Award
1	Ir. Ts. Dr. Anuar bin Mohamed Kassim	Intelligent Wearable Device For Blind Person	Gold Award EE Best Innovation Award
2	Dr. Maaspaliza binti Azri	School Bell System	Silver Award
3	Ir. Ts. Dr. Anuar bin Mohamed Kassim	Intelligent Trash Sorting System (I-BIN)	Silver Award
4	Ir. Ts. Dr. Anuar bin Mohamed Kassim	Intelligent Fire Alarm System (IFAST)	Silver Award

Besides, the annual event Innovate Malaysia 2021 organized by Dreamcatcher Sdn. Bhd. also one of the big event that can be involved. Innovate Malaysia Design Competition is an engineering design competition open to all final year degree engineering, computer science, and science/mathematics students in Malaysia. From FKE, there are 25 teams from UTeM have been registered which consists almost 50 students applied for the competition. From the registration, there are 9 teams which are registered in the Technology track challenge including Keysight, Silterra, Intel, and Microsoft tracks. Meanwhile, there are 17 teams are registered in CREST Design Challenge including Smart City, Digital Healthcare and Precision Farming challenges. There are also 3 teams registered in Sarawak Energy design challenges. From this registration, there are selection process by the panels to select the selected teams to be participated in the Innovate Malaysia 2021.

From the selection, there are 10 teams which are selected in various track and design challenges to be carried on the challenges until the end of Grand Final Challenge conducted in the August 2021. From the selected teams, there are 2 teams that has been awarded The Great Lab (TGL) Project Funding which amount of RM 1500.00 each to develop the prototype for project lead by Muhammad Hafez Aziz and Syazlianti Said. After all the challenges done, the Grand Final Challenges has been participated by 5 teams which are in various challenges such as Keysight, Microsoft, CREST and Sarawak Energy. From the Grand Final Challenges, UTeM and FKE has won various challenges as per stated in Table 4.

Table 4: Awardees of Innovate Malaysia Design Challenge 2021

Track/Design Challenge	Title	Researcher	Award
Sarawak Energy Design Challenge	Distribution Line Fault Alert System (DLFAS)	Ng Chi Yuan / Wong Chee Oon / Soon Wei Sheng. Advisor(s): Assoc. Prof. Dr. Hidayat Zainuddin / Assoc. Prof. Dr. Sharifah Sakinah Syed Ahmad	Winner
Keysight	Development of Myoelectric Muscle Sensor with IoT Technology for Continuous Prediction of User Motion Intention	Lee Leong Jin / Chan Hwa Sheng. Advisor(s): Dr. Norafizah Abas / Assoc. Prof. Dr. Mohd Shahrieel Mohd Aras	Second Prize
Microsoft	Distribution Line Fault Alert System (DLFAS)	Ng Chi Yuan / Wong Chee Oon / Soon Wei Sheng. Advisor(s): Assoc. Prof. Dr. Hidayat Zainuddin / Assoc. Prof. Dr. Sharifah Sakinah Syed Ahmad	Consolation
CREST	Design and development of on-the-go soil fertility measurement by using ATV	Tan Wei Chian / Muhamad Afiq Shahmi Shamsul Izran / Muhammad Muslim Mohd Rashidin. Advisor(s): Ir. Dr. Anuar Mohamed Kassim	Consolation

Table 5: Awardess of the Malaysia Social Innovation Accelerator Program (MYSIAP) 2021

		
Ahmad Ikhwan bin Mohd Rozmizi	Sahrul bin Sahak	Tan Wei Chian
Design and Development of Intelligent Wearable Travel Aid Device for Blind Person	Intelligent Fire Alarm System (I-FAST)	Development and Analysis of Data Fusion Multi Soil sensor System with IoT Platform for Smart Farming

On the other hand, the Innovation and Invention Competition through Exhibition (i-CompEx 2021) has been organized on 17 May 2021 to 27 July 2021. This is an annual event organized by the Sultan Abdul Halim Mu'adzam Shah Polytechnic (POLIMAS) Jitra, Kedah since 2013. The organization of iCompEx has the full cooperation of the Polytechnic Education Department (JPP) and the Kedah State Government. The organization of iCompEx in 2015 has managed to attract the most entries and was recognized by "The Malaysia Book of Records for Organizing the Largest Participation in an Innovation and Invention Competition." In this exhibition, one participation from FKE has been made as in table 6.

Table 6: Awardess of Innovation and Invention Competition through Exhibition (i-CompEx 2021)

Researcher	Title	Award
Assoc. Prof. Dr. Mariam binti Md Ghazaly (Leader), Dr. Zulkeflee bin Abdullah, Dr. Nurdiana binti Nordin, Ts. Dr. Norharyati binti Harum, Dr. Isa bin Halim, Muhsin Kamil bin AbdulNazar	V4Fisio (I-VPPosture)	Gold award

Finally, the 1st Technology and Research Exhibition (TRex 2021) in conjunction with The 1st International Convention on Applied Science and Humanities (CASH) 2021 that has been organized by Universiti Malaysia Perlis (UniMAP) from 12-13 July 2021 also has been participated by staff and student from Faculty of Electrical Engineering UTeM. In this exhibition, one product which is Solar-based Melaka River Cruise has been registered. This product has been awarded some awards such as in Table 7.

Table 7: Awardess of 1st Technology and Research Exhibition (TRex 2021)

Researcher	Title	Award
Ahmad Zakwan bin Mohs Asri, Muhamad Izuan Yusoff, Atikah Razi	Solar-based Melaka River Cruise	Best Poster Award Best Video Award Gold Award

The video and the description of the innovation product from the staffs and students can be viewed from the following link.

- Intelligent Wearable Device for Blind Person
<https://www.youtube.com/watch?v=L0gZlIfQe3k>
- OptiDR-Simulator
<https://youtu.be/8YLN8XoERiw>
- Intelligent Trash Sorting System (I-BIN)
<https://www.youtube.com/watch?v=Beikq1pw3vk>
- Intelligent Fire Alarm System (IFAST)
<https://www.youtube.com/watch?v=Ojrh9dFij7Y>
- IMDC2021 MY245 - Distribution Line Fault Alert System (DLFAS)
<https://www.youtube.com/watch?v=BTwoNhKdRYo>
- IMDC 2021 MY110: Development of a myoelectric detection circuit with IoT applications
<https://www.youtube.com/watch?v=eRvqtHVShHU>
- IMDC 2021 MY125: Design and Development of on-the-go Soil Fertility Measurement by using ATV
<https://www.youtube.com/watch?v=8zIKJ8Kuqxo>
- iCompEx2021: V4fisio (I-VPPosture)
<https://www.youtube.com/watch?v=ENcOtfJk4PA>
- Solar-based Melaka River Cruise
<https://www.youtube.com/watch?v=pKObdzBF6Gk>

Ts. Dr. Mohd Shahril Ahmad Khiar is Elected as The Executive Member for IEEE Dielectrics and Electrical Insulation Society (DEIS) Malaysia Chapter 2021

By: Mohd Shahril Ahmad Khiar

Past Chair  Associate Professor Ir. Dr. Mohamad Kamarol Mohd Jamil Universiti Sains Malaysia (USM)	Chair  Ir. Dr. Nor Asiah Muhamad Universiti Teknologi Brunei (UTB)	
Vice Chair  Associate Professor Ir. Dr. Hazlee Azil Illias University of Malaya (UM)	Secretary  Ir. Ts. Dr. Wong Jee Keen Raymond University of Malaya (UM)	Treasurer  Dr. Amir Izzani Mohamed Universiti Malaysia Pahang (UMP)
Executive Committee  Dr. Zulkamain Bin Ahmad Noorden Universiti Teknologi Malaysia (UTM)	Executive Committee  Dr. Wooi Chin Leong Universiti Malaysia Perlis (UniMAP)	Executive Committee  Associate Professor Dr. Norhafiz Azis Universiti Putra Malaysia (UPM)
Executive Committee  Ts. Dr. Mohd Shahril Ahmad Khiar Universiti Teknikal Malaysia Melaka (UTeM)	Executive Committee  Associate Professor Ir. Ts. Dr. Azrul Mohd Ariffin Universiti Tenaga Nasional (UNITEN)	

“My main aim as the Executive Member (Industrial Relation), will be to work closely with the members of the Society to tighten the relationship between academia and industry, locally and internationally through several activities such as Industrial Webinar and Industrial Visit. The ultimate objective is to further enhance the number of society membership and to continuously keep the visibility of the DEIS to be one of the relevant technical society for the dielectrics and electrical insulation area” – Ts. Dr. Mohd Shahril.

The Institute of Electrical and Electronics Engineers (IEEE) is the world’s largest technical professional association specializing in Electrical and Electronics Engineering. Until the early of this decade, IEEE has approximately 395,000 members throughout 160 different countries including Malaysia. IEEE Malaysia Session has 26 Technical Societies including Dielectrics and Electrical Insulation Society (DEIS) Malaysia Chapter. In 2021, DEIS Malaysia Chapter is led by 10 Executive Members who are among the academicians from different universities within Malaysia.

<http://deis.ieeemy.org/committee/>

Innovation Competitions

Congratulations for the researchers at the, Innovation and Invention Competition through Exhibition i-Complex 2021 on 17th May – 27th July 2021 (V4FISIO) and Malaysia Technology Expo (MTE2021) on 22nd – 26th March 2021, Lead by Assoc. Prof. Dr. Mariam Md Ghazaly.



Product Synopsis V4FISIO:

- Assist users to correct poor sitting posture.
- Assist users to maintain good sitting posture.
- Assist patients with slipped disk to recover fast.
- User will receive notification when poor posture is detected.

Product Synopsis Lightweight Flexible Wearable Exoskeleton to Minimize Ergonomic Injuries Cases Among Industrial Workers



- Assist workers to prolonged standing using a flexible wearable sit-stand passive exoskeleton.
- Assist workers to minimize stress on leg muscle due to prolonged standing.
- Assist workers to avoid or reduce body fatigue, body pain, lower back pain & upper back pain.

Tahniah diucapkan kepada puan Atikah Razi yang telah memenangi pingat emas di pertandingan Technology and Research Exhibition (TReX 2021), UniMAP (recognition) pada 12 & 13 Julai 2021 dengan projek yang bertajuk Solar-based Melaka River Cruise.



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