

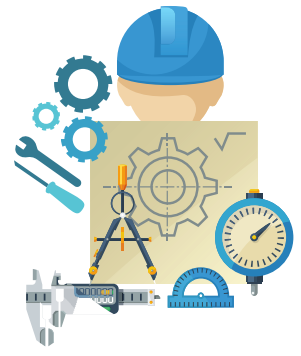


2022

FACULTY OF
**ENGINEERING and
TECHNOLOGY**

Undergraduate Programmes

The **Faculty of Engineering and Technology (FOET)** began as the School of Technology of Tunku Abdul Rahman College in 1972 with programmes that simultaneously prepared students to sit for internationally recognised professional examinations. With the upgrading of Tunku Abdul Rahman College to Tunku Abdul Rahman University College, the Faculty of Engineering and Built Environment was set up in 2013 offering both Bachelor and Diploma programmes. Due to rapid growth and academic restructuring, it was decided to split the Faculty in 2017 and the Faculty of Engineering and Technology was set up to focus on the existing range of professionally and internationally recognised Bachelor of Engineering programmes accredited by the Engineering Accreditation Council, Board of Engineers Malaysia.



With over 49 years of experience in engineering education, the Faculty of Engineering and Technology is poised to grow from strength to strength, offering programmes that meet the quality standards of the engineering profession. We invite you to join us in the pursuit of academic excellence leading to great opportunities in your future. We are confident that you will find your time with us both enjoyable and rewarding. Our aim is to **ENGINEER YOUR PATHWAY TO SUCCESS**, equipping you with knowledge, skills and attributes to prepare you for a brighter future.

What Our Graduates Say



FOO CHI WEI

Technical, analytical and problem-solving skills are important in engineering and I have acquired these important skills as a TAR UC student. The modern and well-equipped facilities have enhanced my hands-on learning process and experience. In addition, the various clubs and societies on campus have also helped me to enhance my soft skills which are very useful for me at work, especially for team projects. Overall, the holistic experience at TAR UC has helped me acquire valuable hard and soft skills and this gives me the flexibility in my future employment.

Bachelor of Electrical and Electronics Engineering with Honours - TAR UC (2021)
Diploma in Technology (Electronic Engineering) - TAR UC (2018)

1. President's List, 2018 & 2019
2. Dean's List, 2019 & 2021
3. Book Prize Winner, 2017/18



NEO CHOON HUI

What makes TAR UC's engineering programme valuable is the programme structure and contents which are delivered by experienced and knowledgeable lecturers. Besides strengthening students' academic knowledge, TAR UC also focuses on helping us build important skills to prepare us for employment such as multitasking, teamwork, communication and problem solving. All these are further enhanced with the vibrant campus environment which certainly enriches our learning experience and campus lifestyle.

Bachelor of Mechatronics Engineering with Honours- TAR UC (2021)
Diploma in Technology (Mechatronics)- TAR UC (2018)

1. Dean's List, 2021
2. Champion of ProDEX 2021 under category Final Year Project (FYP) Group A
3. First runner up of Design Contest 2019 by TAR UC and IMechE



ONG KEVIN

The programme contents are related to industry requirements and this has helped many students secure employment even before graduation. The institution's focus on helping students develop important soft skills helps to prepare us to be team players and leaders at our work places. Besides this, with the support from my lecturers, I managed to complete my degree with First Class Honours and also received a Gold Medal Award from the Institution of Engineers Malaysia ('IEM') for my final year project. I am very grateful to TAR UC for not only giving me the opportunity to pursue a qualification of my interest but also offering me the merit scholarship which allows me to study without financial worry.

Bachelor of Mechanical Engineering with Honours - TAR UC (2020)

1. Merit Scholarship Holder, 2016 & 2019
2. Book Prize winner, 2016 & 2019
3. President Award, 2019
4. IEM Gold Medal Award, 2019

Professionally accredited engineering programmes by the **Board of Engineers Malaysia** and **globally recognised** through Malaysia's signatory membership with the Washington Accord.

Strong industrial links and **exposure** with engineering site visits, guest lectures, and curriculum design with input from industry advisors and successful alumni.

Work on real world **industry-funded projects** and receive **mentorship** from experienced academic staff and practising engineers.

Graduates are **highly sought after** by engineering firms and students may take advantage of career fairs and onsite interviews to **secure employment upon graduation**.

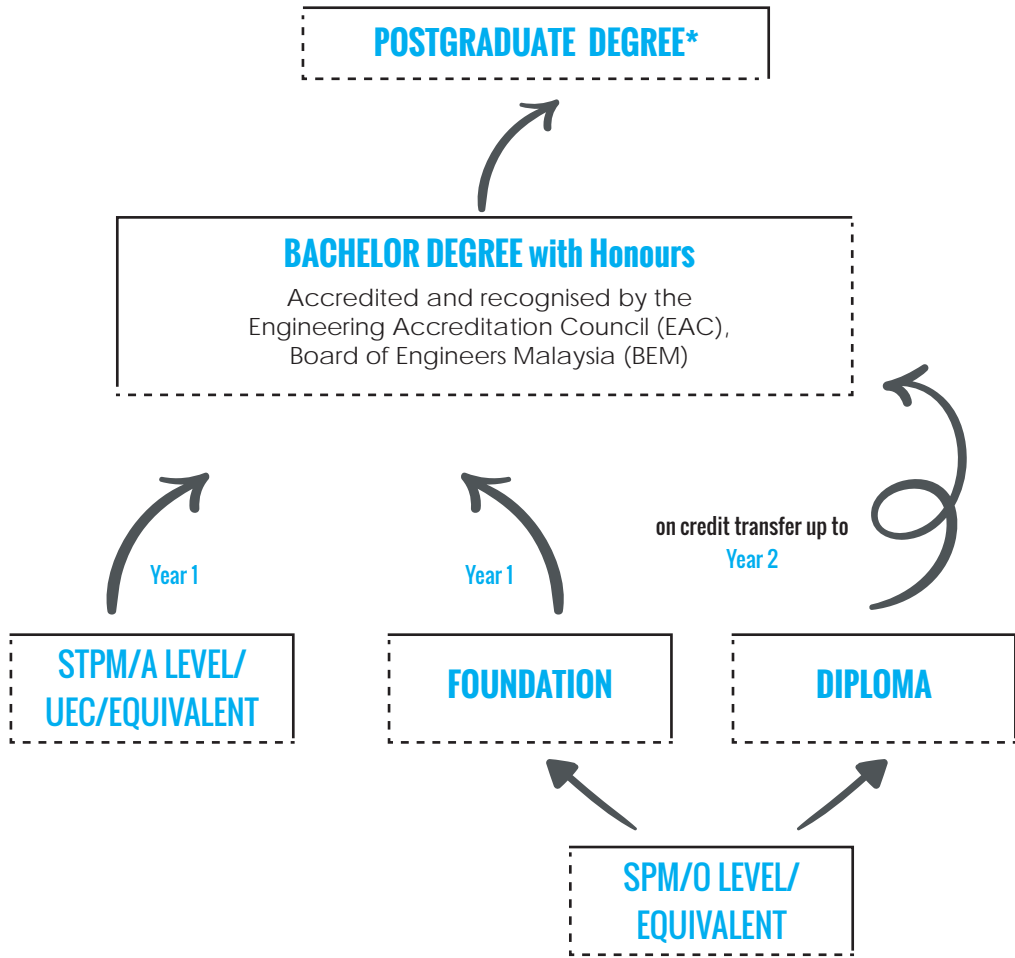
Why study at the
**FACULTY OF
ENGINEERING
AND
TECHNOLOGY**

Engineering education excellence with a strong emphasis on **innovative teaching** and **student centric learning experience**.

Passionate and highly qualified academic staff dedicated to inculcate the significance and key values of research in line with industry driven technological growth.

Opportunities to participate in **national and international competitions** that **challenges** the application of in depth engineering knowledge, practical skills, teamwork and leadership skills.

GENERAL PROGRESSION ROUTE



* The Faculty of Engineering and Technology offers the following postgraduate programme:

• **Master of Engineering Science**
(N/520/7/0111)(04/25)(MQA/PA9396)

• **Doctor of Philosophy in Engineering**
(N/520/8/0110)(07/28)(MQA/PA14730)

2022 INTAKES

JANUARY/FEBRUARY

COMMENCEMENT DATE:

- Selected Bachelor Degree/
Diploma programmes | 17/01/2022
- Foundation | 07/02/2022

JUNE

COMMENCEMENT DATE:

- Foundation | 24/06/2022
- Bachelor Degree & Diploma | 27/06/2022

OCTOBER/NOVEMBER

COMMENCEMENT DATE:

- Foundation | 14/10/2022
- Selected Bachelor Degree/
Diploma programmes | 18/11/2022

PROGRAMMES OFFERED

Foundation (1 Year)



Bachelor Degree (4 Years)

➤ Foundation in Engineering **KL/PG**

➤ Bachelor of Electrical and Electronics Engineering with Honours **KL**

➤ Bachelor of Mechanical Engineering with Honours **KL**

➤ Bachelor of Mechatronics Engineering with Honours **KL**

Diploma (2 Years 6 Months)

on credit transfer up to
Year 2



Bachelor Degree (4 Years)

Engineering Track

➤ Diploma of Electronic Engineering **KL/PG**

➤ Bachelor of Electrical and Electronics Engineering with Honours **KL**

➤ Diploma of Mechanical Engineering **KL**

➤ Bachelor of Mechanical Engineering with Honours **KL**

➤ Diploma of Mechatronic Engineering **KL**

➤ Bachelor of Mechatronics Engineering with Honours **KL**

Diploma (2 Years 4 Months)

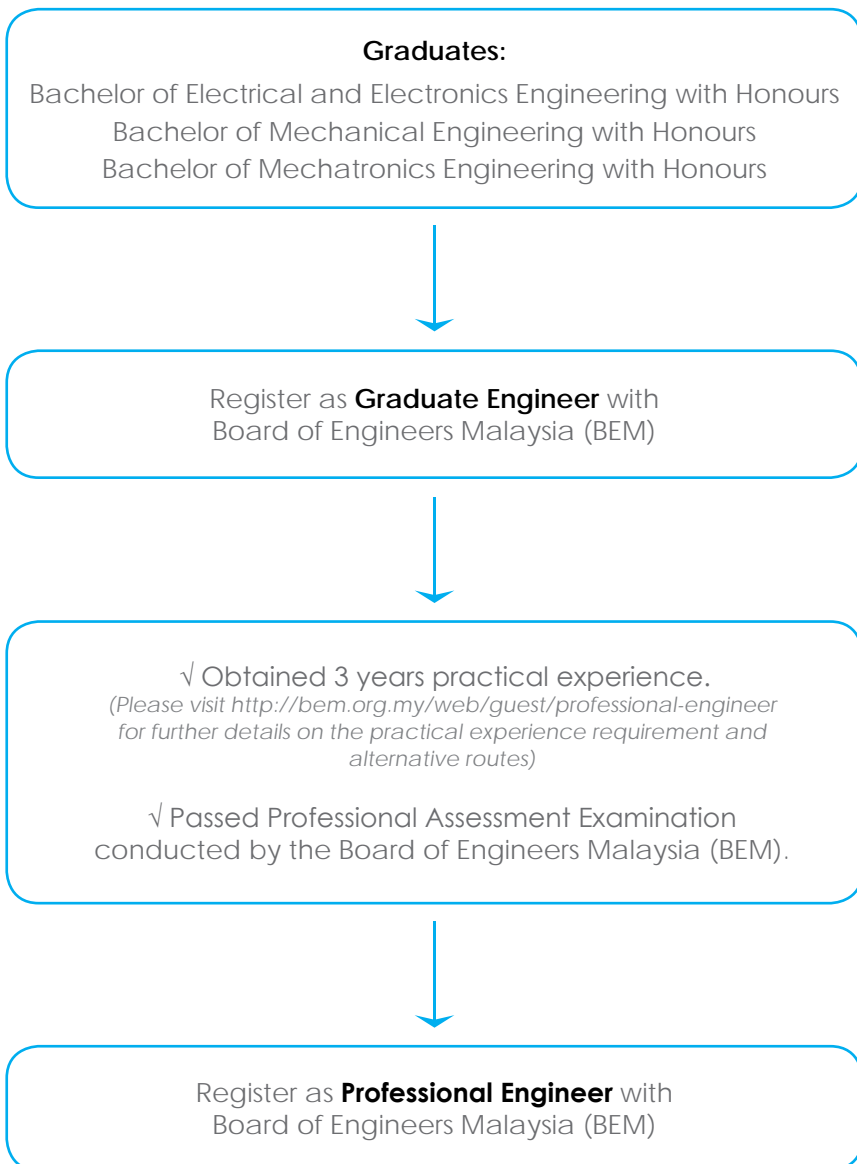
Technologist Track

➤ Diploma in Product Development Technology (**NEW**) **KL**

ACCREDITATION FROM ENGINEERING ACCREDITATION COUNCIL, BOARD OF ENGINEERS MALAYSIA (BEM)

Bachelor's Degree programmes (Bachelor of Electrical and Electronics Engineering with Honours, Bachelor of Mechanical Engineering with Honours and Bachelor of Mechatronics Engineering with Honours) have received accreditation from Engineering Accreditation Council, Board of Engineers Malaysia (BEM) since 2016.

An accredited Bachelor's Degree enable graduates to be eligible for the registration as Graduate Engineer (Grad.Eng.) and followed by Professional Engineer (Ir/ P.Eng) with Board of Engineers Malaysia (BEM).



MECHANICAL ENGINEERING

Mechanical engineering is the broadest among all engineering disciplines. Thus, most of the modern day inventions are due to knowledge and application of mechanical engineering. Ranging from simple machineries to supersonic jets and self-driving vehicles, mechanical engineers were always involved from the inception of an idea to the creation of market-ready product. Graduates trained under mechanical engineering will be equipped with the know-hows and skills to work in a wide spectrum of industries such as manufacturing, automotive, modern agriculture, bio-medical, building services and product design. They are well prepared to contribute to the modern world, fulfilling the needs of the Fourth Industrial Revolution (IR 4.0).

Career Prospects

Graduates with bachelor degree would find career opportunities as an engineer in various sectors, but not limited to mechanical, manufacturing, process and production, design and development, consultancy and also research and development (R&D). Employment opportunities as equipment or facilities engineer are on the rise nowadays, alongside quality assurance sector.

Graduates with diploma qualification are competent in working as assistant engineers or technicians in the above-mentioned fields and also in relevant sales or marketing sectors.

Level & Campus

Bachelor of Mechanical Engineering with Honours
- 4 years

- KL (R/521/6/0063)(10/25)(MQA/FA3884)

Diploma of Mechanical Engineering
- 2 years 6 months

- KL (R/521/4/0061)(08/23)(AA0045)



ELECTRICAL AND ELECTRONICS ENGINEERING

07

PROGRAMMES

Electrical and Electronics (E&E) Engineering is probably the most useful degree for you to gain insight on how all the bizarre technologies improves our life - from smart wearable, smart appliances to smart power grid, smart transportation and many more. The advanced technologies that we are enjoying right now as well as that to be enjoyed in the future are driven the brightest E&E engineers and scientists with strong fundamental knowledge in electricity, electronics and electromagnetism. E&E Engineering programme enables you to explore technical knowledge in variety broad areas - power and high voltage engineering, signal processing, integrated circuits, communications, control & instrumentations, renewable energy, computer architecture and data engineering - and become a competent engineer well equipped to meet the challenges of Fourth Industrial Revolution (IR 4.0). Emphasis of the programme is on sustainable design, development and commercialization of a wide range of electrical & electronic products and services.

Career Prospects

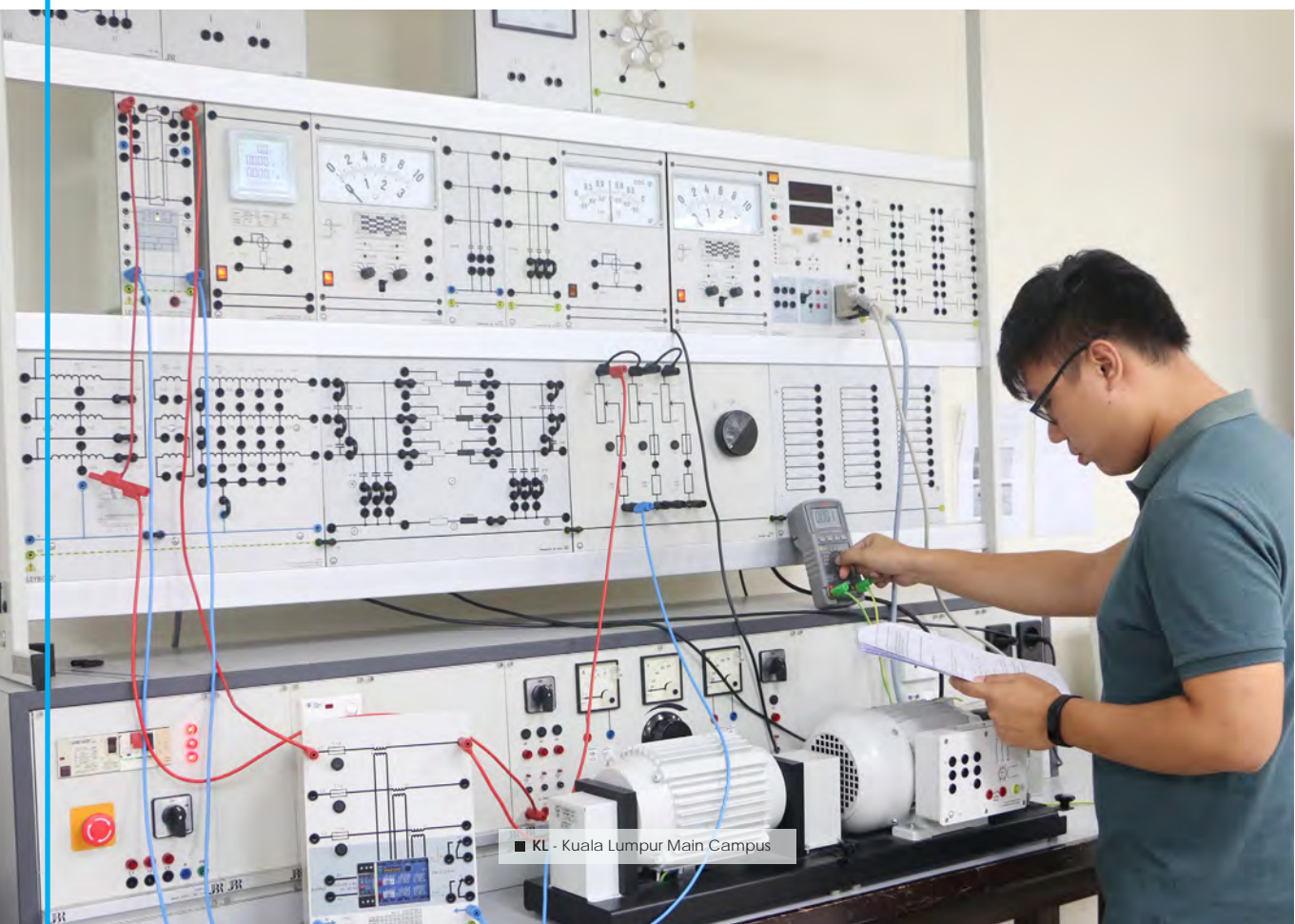
Graduates will find career opportunities in a wide range of sectors, including aerospace, communications, instrumentation & control, IT & computing, consumer & industrial electronics/microelectronics, electrical & power generation machinery & equipment, manufacturing, transport networks, power generation, transmission & distribution, public utilities, building services, scientific, medical and educational institutions, amongst others.

Job scopes may include developing solutions to problems using new or existing technologies, product design, research & development, test & verification, inspection and maintenance, marketing, sales & service, management/supervision of engineering projects & operations, systems installation & testing, ensuring projects meet electrical safety regulations and consultancy, amongst others.

Level & Campus

Bachelor of Electrical and Electronics Engineering with Honours - 4 years

- KL (R/523/6/0158)(10/25)(MQA/FA3882)



MECHATRONICS ENGINEERING

Mechatronics is a multidisciplinary engineering branch incorporating Mechanical, Electronics, Control, Networking and Software systems. The synergy of these systems are widely used in multiple industries which typically include automation and system integration. Graduates are therefore involved in almost all levels of various sectors, namely: design, development, applications, automation, manufacturing and advanced research.

Career Prospects

Encompassing mechanical, electronics and control aspects, graduates who were trained under mechatronics engineering would find job opportunities in automation, robotics, instrumentation & control and systems engineering sectors. Having a solid fundamental knowledge, graduates are also able to venture into design, research and development, engineering services, autonomous system engineering and/or jobs that are in-line with the Fourth Industrial Revolution (IR 4.0).

Esteemed diploma level graduates are eligible to contribute as assistant engineers or technicians in the above-mentioned fields and also in relevant sales or marketing sectors.

Level & Campus

Bachelor of Mechatronics Engineering with Honours

- 4 years

- **KL** (R/523/6/0159)(10/25)(MQA/FA3885)

Diploma of Mechatronic Engineering

- 2 years 6 months

- **KL** (R/523/4/0139)(08/23)(AA0047)

ELECTRONIC ENGINEERING

Electronic technologies form the foundation of modern society, making possible the devices and systems that we rely upon in our daily life such as mobile communications, computer networks, medical equipment, video and audio systems and industrial control and automation. Electronics is a broad engineering field, giving students enormous flexibility and wide ranging career options. The Diploma of Electronic Engineering emphasises on design of digital and analogue systems with a focus on applying basic concepts and skills to real world situations and developing broad-based knowledge with a curriculum that includes electronic devices, communications, automation and control, software engineering and embedded systems. The Diploma programme is designed to bridge the gap for school leavers for a successful university study in Electrical and Electronics Engineering.

Career Prospects

Graduates will find flexible and wide ranging of career options in the industries of aerospace, telecommunications, instrumentation & control, computing, consumer and industrial electronics with job scopes that may include product design, development & testing, maintenance, marketing, and sales & services.

Level & Campus

Diploma of Electronic Engineering - 2 years 6 months

- **KL** (R/523/4/0138)(08/23)(AA0044)
- **PG** (R/523/4/0126)(05/23)(AA0150)

PRODUCT DEVELOPMENT TECHNOLOGY (NEW)

Product Development is the process of conceptualising and designing products, either physical or digital, to provide end users with solutions that meet their needs. For the purpose of developing new products or improving an existing products, it is imperative that product development technologists identify company goals in conjunction with market opportunities, prior to applying well-defined principles and technologies in a creative way. Product development technologists also formulate manufacturing specifications and perform design analyses to ensure all products meet industry standards and guidelines for functionality. Graduates trained under product development technology programme are expected to be innovative, creative, and analytical with excellent working knowledge using 3D modelling software and other modern technology tools.

Career Prospects

Graduates of *Diploma in Product Development Technology* are *Manufacturing and Industrial Technologists* with broad technical, managerial and operational background within their profession. Graduates can build their career as an assistant engineer, technical associate, or technician in the field of *product research and development, product design and marketing, product testing and quality assurance, product manufacturing and production, mechanical and machineries design*, as well as *automation and control*. They are well prepared as a *technoprenuer* to fulfil the country's needs of the Fourth Industrial Revolution (IR 4.0). Graduates are also encouraged to further their study in the relevant Bachelor Degree Programme.

Level & Campus

Diploma in Product Development Technology - 2 years 4 months

- KL (N/521/4/0185)(MQA/PA 13347)(MBOT/PA/ME/0/01/0005)



BACHELOR DEGREE ENTRY REQUIREMENTS

	STPM	A Level	UEC	Other IHL	TAR UC
Bachelor of Electrical and Electronics Engineering with Honours	Grade C in Physics and one Mathematics subject	Grade D in Physics and Mathematics	5 Grade B in the relevant subjects which must include Physics and one Mathematics subject	Relevant Foundation/Diploma accredited by MQA	<ul style="list-style-type: none"> Foundation in Engineering
Bachelor of Mechanical Engineering with Honours					OR
Bachelor of Mechatronics Engineering with Honours					<ul style="list-style-type: none"> Relevant Diploma
AND					
SPM Credit/O Level Grade C/UEC Grade B in English Language and Bahasa Melayu/Malay Language					

Note:

a) TAR UC Diploma will be accepted on credit transfer into Bachelor Degree programmes.

b) Equivalent qualifications/qualifications from other Institution of Higher Learning (IHL) will be considered on a case-by-case basis.

c) Subject to the Ministry of Higher Education latest requirements.

DIPLOMA ENTRY REQUIREMENTS

	SPM	O Level	UEC	Certificate
Diploma of Electronic Engineering	4 Credits in the relevant subjects	4 Grade C in the relevant subjects	4 Grade B in the relevant subjects	<ul style="list-style-type: none"> Relevant Certificate accredited by MQA
Diploma of Mechanical Engineering				OR
Diploma of Mechatronic Engineering				<ul style="list-style-type: none"> Relevant Skilled/Technical/Vocational Certificate recognised by the Malaysian Government
Compulsory subjects:				
(i) SPM Credit/O Level Grade C in Mathematics/UEC Grade B in Advanced Mathematics (I)				
(ii) SPM Credit/O Level Grade C/UEC Grade B in Physics/Chemistry/Biology				
(iii) SPM Credit/O Level Grade C/UEC Grade B in English Language and Bahasa Melayu/Malay Language				
(iv) SPM Pass in Additional Mathematics <u>AND</u> Physics <u>OR</u> O Level Grade E (Pass) in Mathematics-Additional <u>AND</u> Physics <u>OR</u> UEC Grade C in Advanced Mathematics (II) <u>AND</u> Physics				

Note:

a) SPM holders from Year 2013 onwards must have at least a pass in Sejarah.

b) Equivalent qualifications/qualifications from other Institution of Higher Learning (IHL) will be considered on a case-by-case basis.

c) Subject to the Ministry of Higher Education latest requirements.

DIPLOMA ENTRY REQUIREMENTS

Diploma in Product Development Technology

SPM	O Level	UEC	Certificate
4 Credits in the relevant subjects	4 Grade C in the relevant subjects	4 Grade B in the relevant subjects	<ul style="list-style-type: none"> Relevant Certificate accredited by MQA
<p>Compulsory subjects:</p> <p>(i) SPM Credit/O Level Grade C in Mathematics/UEC Grade B in one Mathematics subject</p> <p>(ii) SPM Credit/O Level Grade C/UEC Grade B in Science/ Technical/ Vocational subject</p> <p>(iii) SPM Credit/O Level Grade C/UEC Grade B in English Language and Bahasa Melayu/Malay Language</p>			<p>OR</p> <ul style="list-style-type: none"> Relevant Skilled/ Technical/ Vocational Certificate recognised by the Malaysian Government

Note:

- a) SPM holders from Year 2013 onwards must have at least a pass in Sejarah.
 b) Equivalent qualifications/qualifications from other Institution of Higher Learning (IHL) will be considered on a case-by-case basis.
 c) Subject to the Ministry of Higher Education latest requirements.

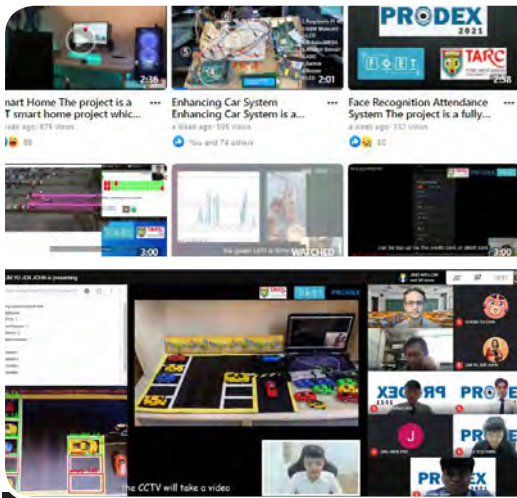
FOUNDATION ENTRY REQUIREMENTS

BACHELOR DEGREE	FOUNDATION	ENTRY REQUIREMENTS		
		SPM	O LEVEL	UEC
Bachelor of Electrical and Electronics Engineering with Honours Bachelor of Mechanical Engineering with Honours Bachelor of Mechatronics Engineering with Honours	Foundation in Engineering	5 Credits in the relevant subjects which must include,	5 Grade C in the relevant subjects which must include,	4 Grade B in the relevant subjects which must include,
		<p>SPM Credit in Mathematics AND Additional Mathematics/O Level Grade C in Mathematics AND Mathematics-Additional/UEC Grade B in Advanced Mathematics (I or II) AND Grade C in Advanced Mathematics II</p> <p>AND</p> <p>SPM Credit/O Level Grade C/UEC Grade B in Physics, English Language and Bahasa Melayu/Malay Language</p> <p>AND</p> <p>SPM Pass/O Level Grade E (Pass)/UEC Grade C in Chemistry</p>		

Note:

- a) SPM holders from Year 2013 onwards must have at least a pass in Sejarah.
 b) Equivalent qualifications other than the above will be considered on a case-by-case basis.
 c) Subject to the Ministry of Higher Education latest requirements.

STUDENT ACTIVITIES



Faculty of Engineering and Technology, TAR UC was live.

Posted by Johnny Tan
21 Apr · 🌐

The annual ProDEX event from TARUC Faculty of Engineering and Technology, showcasing works done by Year 3 and Year 4 engineering students from... See more



ProDEX 2021



Project Design Exhibition (ProDEX) is an annual exhibition which serves as a platform to showcase student's projects. All event activities including exhibition, project presentation, video competition, judging process, briefing and meeting were conducted virtually using online platforms. The various projects are also judged by panels from TAR UC as well as from industries where amongst the judging criteria are the viability of the project and its practicality in solving various industry challenges.

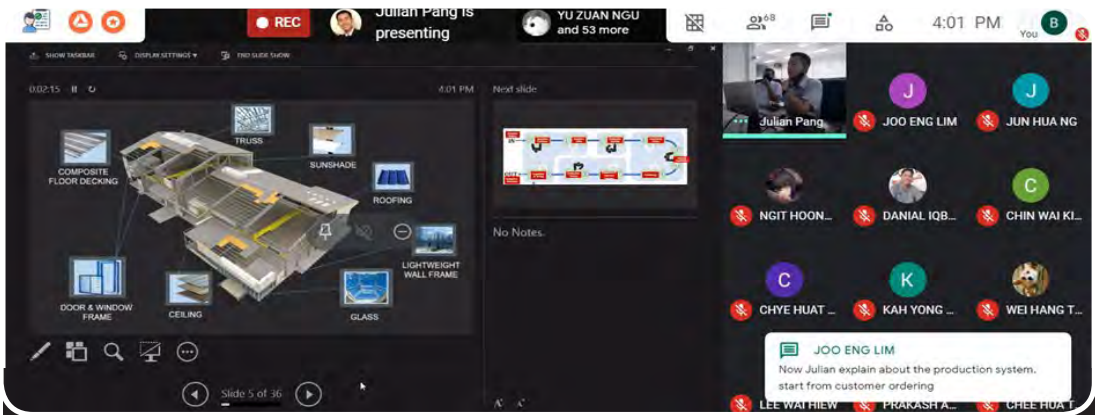


Machine Vision Training Program (22 & 29 July 2021)



The virtual trainings are specially sponsored by TMS Lite Sdn Bhd. The training enables students to learn on the operation and maintenance of the Vision Stations.

STUDENT ACTIVITIES



Virtual Industry Visit to Ajiya Roofing Industries Sdn Bhd (25 March 2021)



A live-stream session where the production processes were demonstrated, provided an insightful showcase of the materials, machinery, process flow and production layout. Students were exposed to the production planning and the quality aspect of the incoming, in-process and outgoing using the truss product as example.



Industrial Talk on Creativity in Engineering Design (8 March 2021)



This industry talk shared the importance, knowledge, tools and techniques of creativity in engineering design. It touched on two main aspects of creativity, namely the product and processes which are very relevant when creating new products. Real life examples were illustrated to demonstrate the novelty and effectiveness.

MERIT SCHOLARSHIP

Automatically offered upon admission



Diploma/Foundation Programmes

Entry Qualification	Criteria	Waiver of Tuition Fee
SPM O Level	Minimum 8A+/A Minimum 8As	100%
SPM O Level	8As* 7As	50%
SPM O Level	7As* 6As	25%
SPM	6As*	20% Foundation programmes only
SPM	5As*	15% Foundation programmes only

*SPM As : A+/A/A-

Bachelor Degree Programmes

Entry Qualification	Criteria	Waiver of Tuition Fee
STPM / A Level	3As	100%
Unified Examination Certificate (UEC)	8As	
*TAR UC Diploma / *TAR UC Foundation / Matriculation	CGPA \geq 3.8500	
South Australian Matriculation (SAM)/ Western Australian Certificate of Education (WACE)/ Higher School Certificate (HSC)	\geq ATAR 95	
Canadian Pre-University (CPU)	\geq 95%**	
STPM / A Level	2As	50%
Unified Examination Certificate (UEC)	7As	
*TAR UC Diploma / *TAR UC Foundation / Matriculation	CGPA \geq 3.7500	
South Australian Matriculation (SAM)/ Western Australian Certificate of Education (WACE)/ Higher School Certificate (HSC)	\geq ATAR 90	
Canadian Pre-University (CPU)	\geq 90%**	
Unified Examination Certificate (UEC)	6As	25%
Unified Examination Certificate (UEC)	5As	20%

Including A-

*Must have obtained straight passes in all courses (including co-curriculum courses for diploma)

**For all subjects with a minimum of 6 subjects

Only applicable for full-time programmes.

Terms & Conditions apply.

For further information, please contact:

Assistant Registrar

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Email: foet@tarc.edu.my

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Fax: (6) 05 466 0390

E-mail: perak@tarc.edu.my

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Fax: (6) 07 927 0802

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Fax: (6) 09 573 8100

E-mail: pahang@tarc.edu.my

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www.tarc.edu.my

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