

# Programme Educational Objectives (PEO) for Malaysian Engineering Graduates – Establishment, Assessment, Improvement

MOHD SYUHAIMI AB RAHMAN  
DIRECTOR  
ALUMNI RELATION CENTER  
UNIVERSITI KEBANGSAAN MALAYSIA





# AKTIVITI-AKTIVITI ALUMNI

ALUMNI PRIHATIN  
MISI BANTUAN KASIH  
KELANTAN



## SHARING RESOURCES (FACILITIES)



## SHARING RESOURCES (EXPERTISE)



ALUMNI PRIHATIN  
MISI BANTUAN KASIH  
PAHANG



ALUMNI PRIHATIN  
MISI BANTUAN KASIH  
SELANGOR





## AKTIVITI-AKTIVITI ALUMNI



**50th**

**ALUMNI**  
**UKM**



**KONVOKESTEN**  
**1963-2013**

# TRIBUT KEPADA PELITUP MUKA ALUMNI UKM KONVO 48

Pelitup Muka Alumni versi Konvo kesyean UKM ke-48 ini merupakan satu tanda penghargaan kepada seluruh alumni UKM atas pencapaian dalam bidang masing-masing yang secara tidak langsung menyekutkan nama UKM di pelbagai antarabangsa. Ia juga sebagai kartu tanda penghargaan di atas sumbangan alumni UKM yang selama ini memberi kepada kesyean UKM dalam keistimewaan alam mater. Pelitup muka ini bakal dipasangkan dengan Jubah UKM pasti menaikkan warna 3 jalur rasmi universiti pada wajah si pemakai. Semoga menawan!













**SOLIDARITI ALUMNI**

#KONVOUKM

[@palamnikan\\_official](#)   
 [@palamnikan](#)   
 [facebook.com/UKMAlumni](#)

**A L U M N I - U K M**

[www.ukm.my/alumni](http://www.ukm.my/alumni)





UNIVERSITI KEBANGSAAN  
MALAYSIA  
THE NATIONAL UNIVERSITY  
OF MALAYSIA



50  
YEARS  
1963-2013



KEMAJU  
BERKUALITI  
BERKUALITI

# FORUM ISU SEMASA

# COVID-19

## DI DALAM KAMPUS



LIVE

### SELASA

**8 JUN 2021 9:00 P.M**



**PANEL 1**

Prof. Madya Dr. Roslee Rajikan  
(Pengarah HEP UKM)



**PANEL 2**

Dr. Mohd Azman Bin Abbas  
(Pengarah Pusat Kajian dan  
Universiti)



**PANEL 3**

Muhammad Izzat Hakim Bin  
Mohd Nish  
(Ketua Jawatankuasa Pendidikan Khas  
Covid-19 KDO)



**MODERATOR**

Mohamed Muzie Bin  
Mohamed Sopi  
(TOP 2000000)

KESATUAN MAHASISWA UNIVERSITI KEBANGSAAN MALAYSIA (KUMKM)

**UNIVERSITI  
WATAN KITA**





# PENGHANTARAN UBAT TERUS KE RUMAH ANDA

**WAKTU :** ISNIN – JUMAAT  
**WAKTU :** 8.30 PAGI – 4.30 PETANG (PENDAFTARAN/PERTANYAAN)  
**NO. WA :** 018-9682218 (WHATSAPP SAHAJA)  
**WhatsApp akan dibalas dalam tempoh sewelut – lewatnya 5 hari bekerja.**  
**NO. TEL :** 03 – 91455398 (Pertanyaan ubat *Non-Formulary*)  
**Kadar kas kiriman ditanggung oleh pesakit bermula RM5.30 (tertakluk berat bungkusan & zon) dan dibayar secara tunai (COD) kepada wakil Poslaju.**  
**HCTM :** Perkhidmatan ini hanya untuk pesakit HCTM sahaja.

1. Semak baki ubat anda di rumah.
2. Sekiranya ubat tidak mencukupi, whatsapp farmasi minimum 14 hari sebelum bekalan ubat habis dan sertakan Nama Pesakit, Nombor Daftar (RN), dan Poskod alamat untuk saringan kelayakan.
3. Jika layak, ubat (kecuali *Non-Formulary* / ubat sejuk / injeksi) dihantar terus ke alamat yang telah ditetapkan untuk bekalan ubat 2 bulan.



**PERKHIDMATAN PENGHANTARAN UBAT MELALUI POS (UMP)**  
**JABATAN FARMASI, HCTM**



**ALUMNI-UKM**  
PUSAT PERHUBUNGAN ALUMNI  
CENTRE FOR ALUMNI RELATIONS



# AKTIVITI-AKTIVITI ALUMNI

**HEP-UKM**

## TABUNG BANTUAN KEBAJIKAN PELAJAR (KHS2)

Pihak HEP-UKM berterima kasih kepada banyak pihak yang ingin sama membantu pelajar UKM yang berada di kampus sepanjang Perintah Kawalan Pergerakan ini. Bagi menyelaraskan bantuan, anda boleh salurkan sumbangan anda ke Tabung Bantuan Kebajikan Pelajar (KHS2) seperti berikut:

**Universiti Kebangsaan Malaysia**  
**8002234307**  
**CIMB**  
 Tabung Bantuan Kebajikan Pelajar (KHS2)

Mohon sertakan resit bukti sumbangan kepada  
 pghhep@ukm.edu.my  
 bagi tujuan pengecualian cukai

facebook.com/ukmalumni | @ukmalumni | @ukmalumni\_official

**ALUMNI-UKM**

## TABUNG SUMBANGAN COVID-19

Bantuan makanan kepada para pelajar yang terkesan akibat daripada COVID-19 di Kolej Kediaman

**TABUNG KEBAJIKAN PELAJAR ALUMNI** (Universiti Kebangsaan Malaysia)  
**98945112002000**  
**CIMB BANK**  
 pghalumni@ukm.edu.my

Mohon sertakan resit pembelian sumbangan kepada Pusat Perhubungan Alumni (ALUMNI-UKM) bagi tujuan pengecualian cukai

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**50th ALUMNI-UKM**

## Terima Kasih ALUMNI

Setinggi penghargaan kepada alumni sekalian yang menyumbang kepada tabung COVID-19 UKM. Tidak lupa juga mereka yang menyumbang dalam bentuk lain seperti makanan, peralatan kesihatan dan keperluan asas yang lain kepada pelajar yang terjejas akibat wabak ini. Semoga sumbangan ini memudahkan pelajar-pelajar mengharungi kehidupan di kampus khususnya semasa perintah kawalan pergerakan dilaksanakan.

Salurkan bantuan anda melalui  
 Atas talian: Give2UKM.ukm.my (Tabung Sumbangan COVID19)  
 Universiti Kebangsaan Malaysia: 8002234307 CIMB Bank (COVID19)

Sila maklumkan sumbangan anda kepada:  
**Dr Lai (017-318 0369)**

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**50th ALUMNI-UKM**

## Projek PEK MAKANAN BERBUKA PUASA UNTUK PELAJAR

DIMAKLUMKAN PUSAT PERHUBUNGAN ALUMNI SEDANG MENGUMPUL DANA BAGI MEMBEKALKAN PEK MAKANAN BERBUKA PUASA KEPADA PELAJAR YANG BERADA DI KAMPUS SEMASA BULAN RAMADAN INI.

ALUMNI YANG INGIN MENYUMBANG BOLEH BERHUBUNG DENGAN PUSAT PERHUBUNGAN ALUMNI:  
**PUAN FARAH FARZANA : 03-8921 5163**  
**CIK ROHIDAYAH : 03-8921 4703**

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**50th ALUMNI-UKM**

## SUMBANGAN SARA HIDUP TABUNG KEBAJIKAN PELAJAR-ALUMNI Kepada PELAJAR LATIHAN INDUSTRI UKM

A collage of photos showing students and staff members participating in food distribution activities, including handing out food packs and preparing food items.

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**50th ALUMNI-UKM HEP-UKM**

## BANTUAN INSENTIF PERANTI UKM

Alumni Prihatin Sumbangan baucer **RM RM60,000** pembaikpulhan laptop untuk **120** pelajar UKM.

## Terima Kasih Alumni!

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**50th ALUMNI-UKM PUSAT ISLAM HEP-UKM**

## Projek BEKALAN TAMAR UNTUK PELAJAR

DIMAKLUMKAN PUSAT PERHUBUNGAN ALUMNI DENGAN KERJASAMA PUSAT ISLAM DAN PUSAT ILMU BUKU PELAJAR SEDANG MENGUMPUL DANA BAGI MEMBEKALKAN BUAH TAMAR KEPADA PELAJAR YANG BERADA DI KAMPUS SEMASA BULAN RAMADAN INI.

SUMBANGAN BUAH TAMAR JUGA BOLEH DIHANTAR KE PUSAT PERHUBUNGAN ALUMNI & PUSAT ISLAM

SUMBANGAN BOLEH DISALURKAN KE:  
 (UNIVERSITI KEBANGSAAN MALAYSIA)  
**98945112002000**  
**CIMB BANK**  
 alumni@ukm.edu.my

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**ALUMNI PRIHATIN**

## Terima Kasih Alumni UKM SUMBANGAN KEPADA PELAJAR FSK

Sumbangan daripada Pusat Perhubungan Alumni UKM melalui Tabung Kebajikan Pelajar Alumni kepada 45 orang pelajar Fakulti Sains Kesihatan UKM yang dikuarantin di Kolej Dato Onn dan Kolej Ungku Omar sebelum mereka memulakan latihan klinikal masing-masing. Terima kasih alumni yang menyumbang ke tabung ini!

A collage of photos showing students and staff members participating in food distribution activities, including handing out food packs and preparing food items.

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**ALUMNI-UKM**  
 PUSAT PERHUBUNGAN ALUMNI  
 CENTRE FOR ALUMNI RELATIONS



# ALUMNI CONTRIBUTION



MEDICAL EQUIPMENT HAND OVER CEREMONY  
30 September 2021

# Programme Educational Objectives (PEO) for Malaysia Engineering Graduates – Establishment, Assessment, Improvement

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UNIVERSITI KEBANGSAAN MALAYSIA





# INTRODUCTION

- The program Educational Objectives (PEOS) are statements that describe the intended quality and attributes of graduates upon completion of the programme and are in alignment with the mission and vision of IHL after a few years of graduation.
- They are (statements) particularly designed to ensure that the programme graduates are **well-equipped with a broad foundation** of theoretical and practical knowledge in various engineering areas of interest and to prepare them for the rapidly changing engineering setting.
- It must be developed through the **structured and systematic process** where internal and external requirement have been considered in identifying demanded attributes (the most well-known) in order to ensure the graduates are highly sought by the industries.
- The stakeholders must be aware about the PEOs through publication, briefing, workshops and meetings. Structured and systematic process by means of Involving of many parties which include internal committee, stakeholder and research to support the identification of most recommended attributes by current industrial demand.

# PANEL OBSERVATION

Under the criterion of Program Educational Objectives (PEO) the panel will look into the 3 segments: **Establishment, Assessment & Continuous Improvement (EAC)**. The PEO should cover all aspect as listed below:

## Key Points

1. Describing the intended quality and attributes of graduates upon completion of the program
2. It must be aligned with the mission and vision of IHL after a few years of graduation in which the gained attributes are blended with the experience from the working field.
3. Develop by systematic and structured process where the internal and external requirement are been considered in identifying the attributes.
4. Research sometimes can be carried out to investigate the attributes from the other universities (benchmarking)
5. It must be published on board as well as in virtual platform.



# THREE (3) SEGMENTS OF EAC PANEL EXPECTATION

## Establishment

The attributes must be in **aligned with internal and external requirement**. The panel will seek for the processes and also evidences. How do the attributes been formularized based on the structured and systematic process such as meeting, surveys, research and so on. The attributes and statement of PEO will distinguish the IHL graduates and those who graduate from the other universities.

## Assessment

Method of assessment whether the IHL uses the direct or indirect or both and these processes should be correlated to perform some goals such as assessing the academic curriculum structure, competency of graduates, achievement of M&V and CQI plan.

## CQI

How the results are made used to improve the program including the effort and strategy to achieve the objective. The final impact will be on the students themselves.

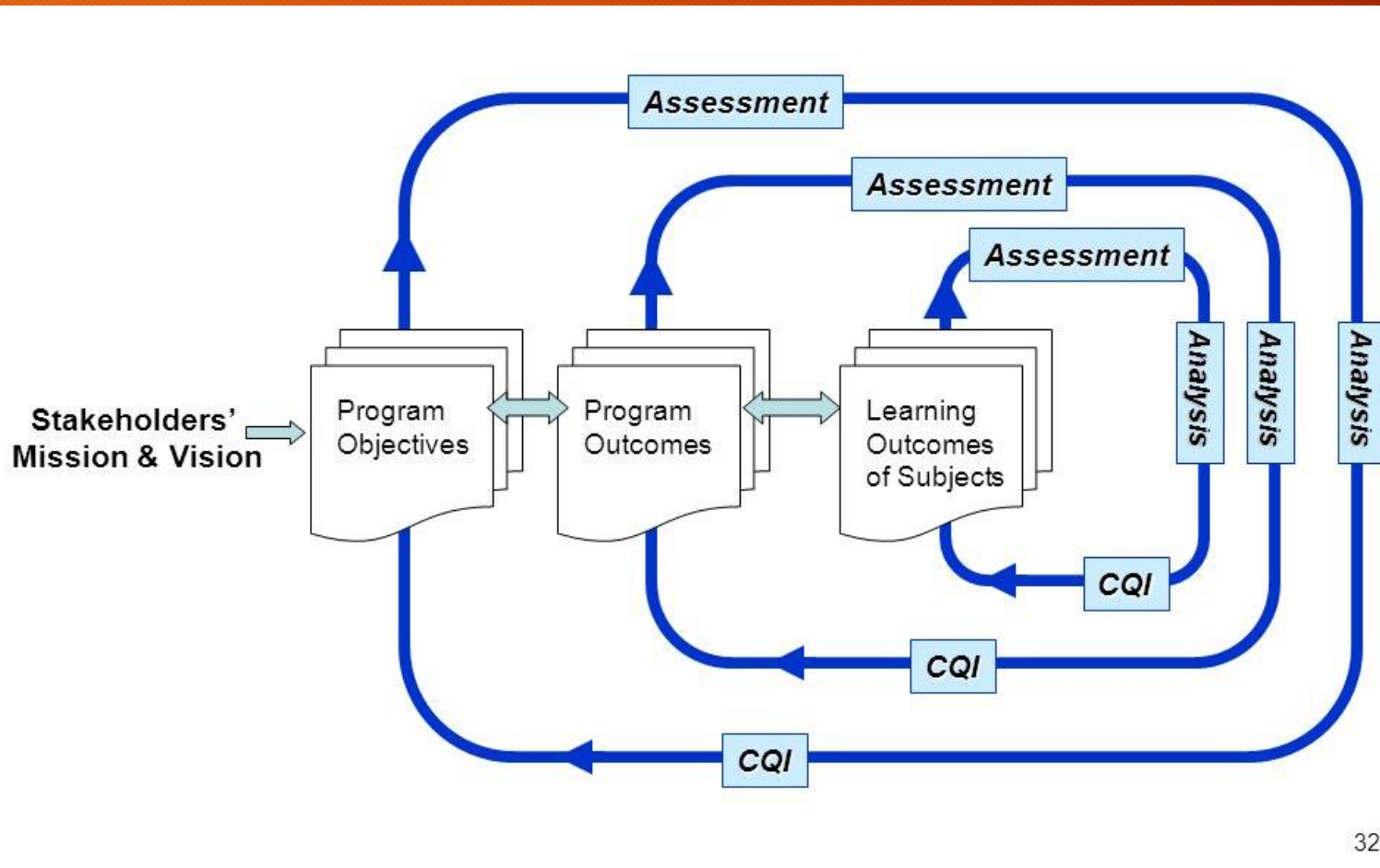


# THE QUESTIONS TIE WITH THE PEO ATTRIBUTES

1. How does the overall process of PEO establishment taken place in the program?
2. What are the attributes deemed to be embedded among the students after few years of time of graduation?
3. How does the info disseminate to the member across the department? How they utilised the PEO to the learning process?
4. What are the methods used to assess the attainment of PEO? Are the performance indicator and target achievement used to assist the analysis of the attainment?
5. How does the PEO assessment result contribute to the improvement of the program?
6. Does the info disseminate to the member in the department?
7. How do they tackle the input for the improvement of their teaching and learning?



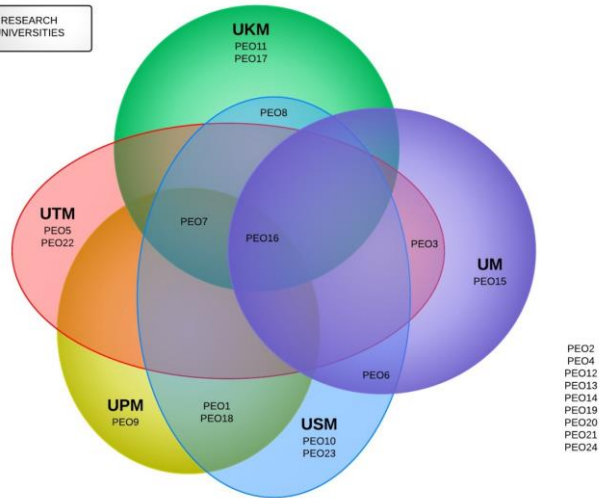
# ESTABLISHMENT





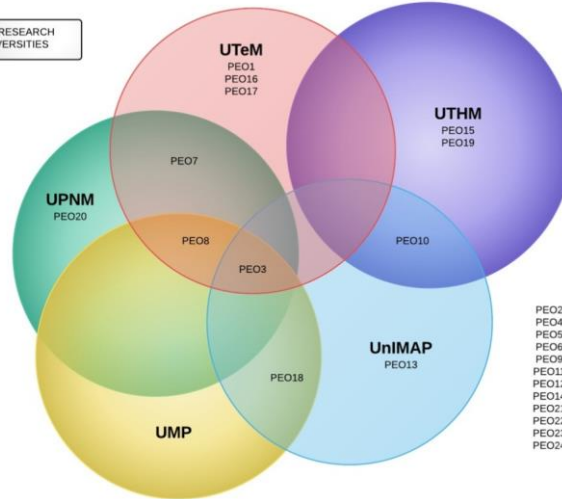
# ESTABLISHMENT

RESEARCH  
UNIVERSITIES



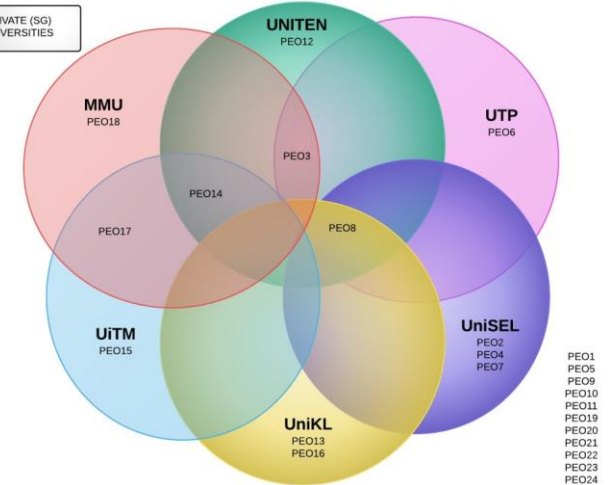
Research University

NON-RESEARCH  
UNIVERSITIES



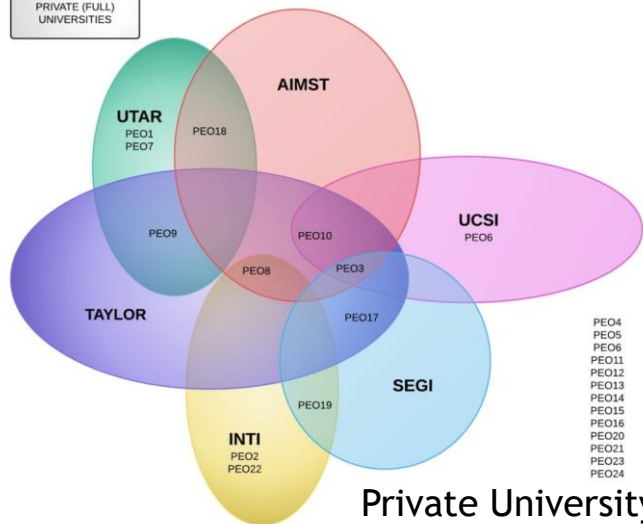
Non-Research University

PRIVATE (SG)  
UNIVERSITIES



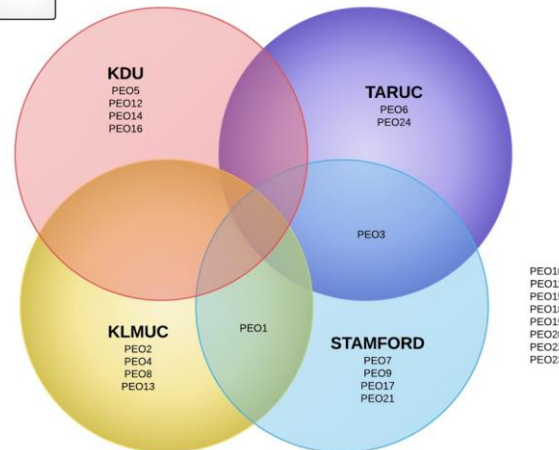
Semi Gov University

PRIVATE (FULL)  
UNIVERSITIES



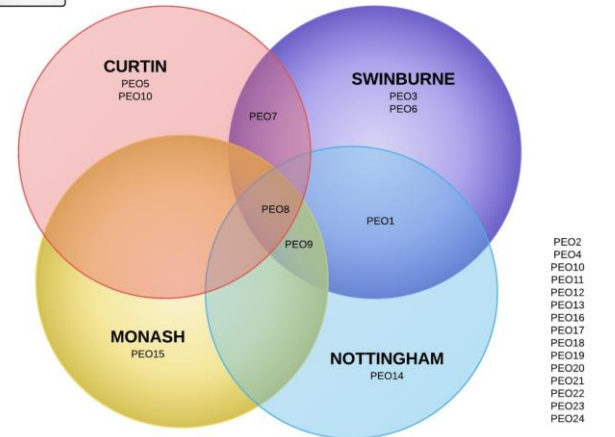
Private University

COLLEGE  
UNIVERSITIES



College University

FOREIGN BRANCH  
UNIVERSITIES



Foreign Branch University



# PEO STATEMENT

## PEO1

*Engineer/Architect who has character and ethics, as well as high professionalism and contributes to the National Aspirations*

## PEO2

*Engineer/Architect who is competent in respective engineering practices that meets current and future needs.*

## PEO3

*Engineer/Architect who has a creative and innovative, entrepreneurial and leadership qualities that are glocal.*



ETIKA & PROFESIONAL

“KREATIF & INOVASI” 05

06 KEUSAHAWANAN  
KEPIMPINAN

ASPIRASI  
KEBANGSAAN

“KOMPETEN” 03

# 6TONGGAK UTAMA FKAB



ALUMNI  
UKM



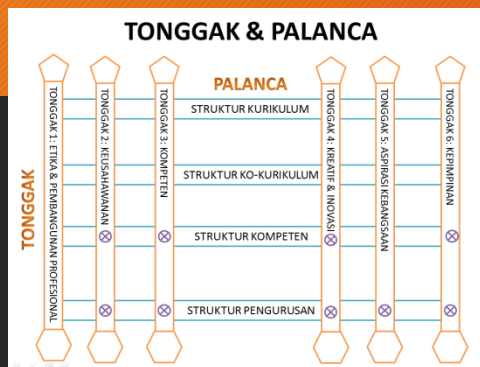












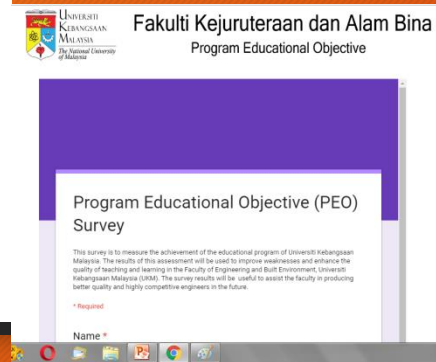
Sistem Pengurusan Akademik



100% Sijil Profesional



Poster Day



Alumni Survey



50 Pelajar Setahun UKM-UDE



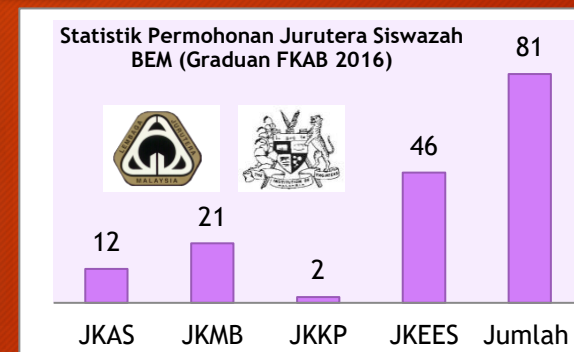
Innovation Day



Port-folio



CSR



100% Registrasi



100% Competition





MoU dengan BEM



Profesor ke Desa



Mobiliti



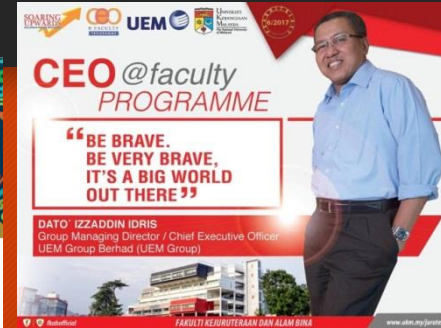
Math Day & Klinik Matematik



Piawai Penilaian



Bijak Matematik



CEO@faculty



Ceramah Industri



External Reviewer



Minggu Pembelajaran Kreatif & Inovatif





## Bulan Matematik

## Pamphlet Baru FKAB

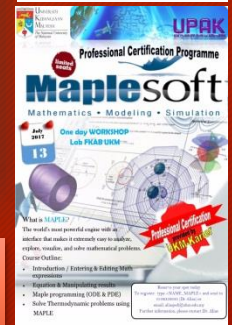


## Math Clinic

## Klinik Matematik



## 50 Peng 2018



## Professional Certification Programme



# PEO ASSESSMENT

**ALUMNI**  
**UKM**



## Fakulti Kejuruteraan dan Alam Bina Program Educational Objective



### Program Educational Objective (PEO) Survey

This survey is to measure the achievement of the educational program of Universiti Kebangsaan Malaysia. The results of this assessment will be used to improve weaknesses and enhance the quality of teaching and learning in the Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia (UKM). The survey results will be useful to assist the faculty in producing better quality and highly competitive engineers in the future.

\* Required

<http://www.ukm.my/peo>



PEO 3: Engineer with creative and innovative skills that posses entrepreneurship and leadership ability for global environment

Attribute: Leadership

## PO3: LEADERSHIP

How can you categorize your employer ? \*

Bagaimana anda kategorikan majikan anda

- ☐ Local (Tempatan)
- ☐ Multinational (Antarabangsa)

Do you have any staff working under your supervision ? \*

Adakah anda mempunyai kakitangan yang bekerja di bawah penyeliaan anda ?

- ☐ Yes (Ya)
- ☐ No (Tidak)

If you are pursuing or have pursued postgraduate study, please state the institution's name

Jika anda sedang atau telah melanjutkan pengajian pascasiswazah, sila nyatakan nama institusi pengajian anda

Your answer \_\_\_\_\_

If yes, how many of them are under your supervision ?

Jika ya, berapakan bilangan pekerja dibawah seliaan anda ?

- ☐ Less than 10 (Kurang dari 10)
- ☐ Between 11 and 20 (antara 11 hingga 20 orang)
- ☐ More than 21 (lebih dari 21 orang)

Are you a leader in any committee in your company ? \*

Adakah anda mengetuai sebarang jawatankuasa di tempat anda bekerja ?

- ☐ Yes (Ya)
- ☐ No (Tidak)

If yes, please describe your responsibilities.

Jika ya, nyatakan tanggungjawab anda.

Your answer \_\_\_\_\_



PEO 2: Engineer that competent in his/her engineering field that is appropriate to current and future needs.

Attribute: Competency

## PO2: COMPETENCY

Have you received any awards/recognition/appreciation from employer/companies/professional bodies within and outside the country?

☐ Yes

☐ No

If yes, please give the name of the awards/recognition/appreciation (example: Professional Engineer, Sr, Ceng, Excellent Employee Award, IEEE Senior Member/Fellow etc)

Your answer

Have you being invited/appointed to present a technical report/paper/training module/workshops at any conferences/symposiums/seminars to represent your employer/company/professional body within and outside the country?

☐ Yes

☐ No

If yes, please name the conference, year and venue

Your answer

Have you involved as an advisor/consultant in any technical or non-technical project?

☐ Yes

☐ No

If yes, please name the project

Your answer

Have you (articles/thoughts/quotation) ever been featured in mass media or popular media?

☐ Yes

☐ No

If yes, please name the media.

Your answer



# PERFORMANCE INDICATOR

Pernyataan PEO	Atribut	Soalan yang Berkaitan	Penunjuk Prestasi	Penentuan Keputusan	Formula Pengiraan	Peratus & Sasaran pencapaian
Jurutera/Arkitek yang mempunyai sahsiah dan etika, serta profesionalisma yang tinggi dan menyumbang kepada Aspirasi Kebangsaan.	Etika	Pernakah anda dikenakan tindakan disiplin? ( $\Delta$ )	Graduan tidak pernah dikenakan tindakan disiplin	Mempunyai $\Delta$ dan $\Phi$ dan $\Omega$  <b>Rational:</b> Graduan UKM tidak dikenakan tindakan disiplin dan faham tentang etika dan kepentingan dalam sesebuah organisasi	<b>Formula:</b> (Bilangan graduan yang tidak dikenakan tindakan disiplin) – (Bilangan graduan yang tidak memahami dan mempraktikkan etika dalam amalan kerja)  <b>(Positif <math>\Delta</math> – Negatif <math>\Phi</math> <math>\Omega</math>)</b>	Semua Kohort: <b>100%</b>  Kohort Selepas 5 Tahun: <b>100%</b>  <b>Sasaran Pencapaian:</b> <b>100%</b>  <b>Justifikasi:</b> Fakulti memandang serius tentang tindakan disiplin dan tidak beretika dan seharusnya semua graduan FKAB adalah beretika dan berdisiplin
		Jika pembekal ingin membelanja anda makan tengahari atau malam, anda menganggapnya sebagai: Biasa, Rasuah, Hadiah	Graduan berketahanan (tidak terpengaruh) dengan perkara yang tidak bermoral.			
		Berdasarkan soalan sebelum ini, adakah tindakan vendor itu mempengaruhi keputusan anda ( $\Phi$ )				
		Yang manakah merupakan prinsip atau etika anda? ( $\Omega$ )	Graduan faham maksud etika dan menjadikannya satu amalan dalam kehidupan mereka			

Profesionalisma	Adakah anda menganggotai sebarang badan profesional berkaitan kejuruteraan ? ( $\Delta$ )	Graduan menganggotai mana-mana badan profesional dan sentiasa bergiat aktif	<p>Mempunyai <math>\Delta</math> atau <math>\Phi</math></p> <p><b>Rational:</b> Graduan faham tentang kepentingan profesionalisma dengan menganggotai mana-mana badan profesional atau sentiasa meningkat profesionalisma melalui latihan dan kursus.</p>	<p><b>Formula:</b> (Graduan yang menganggotai badan) + (Graduan yang menghadiri latifan/bengkel profesional sahaja)</p> <p>(Positif <math>\Delta</math> + Positif <math>\Phi</math> + Positif <math>\Delta</math> <math>\Phi</math>)</p> <p>(Bilangan responden – negatif <math>\Delta</math> <math>\Phi</math>)</p>	<p>Semua Kohort: <b>80%</b></p> <p>Kohort Selepas 5 Tahun: <b>91%</b></p> <p><b>Sasaran Pencapaian :</b> <b>80%</b></p> <p><b>Justifikasi:</b> Kerjaya sebagai jurutera merupakan bidang profesional dan memerlukan peningkatan dari segi pengetahuan dan kemahiran berterusan sebaya sentiasa kompetitif</p>
	Adakah anda pernah menghadiri kursus/latihan profesional ? Jika ya, sila pilih kategori kursus/latihan tersebut ( $\Phi$ )	Graduan meningkatkan profesionalisma menerusi kursus/latihan profesional			



# PERFORMANCE INDICATOR

## PEO1

*Engineer/Architect who has character and ethics, as well as high professionalism and contributes to the National Aspirations*

PI-1 : Have you ever been charged undisciplined?  $\Delta$

PI-2 : What is any suppliers/contactor invite you for lunch? Do you accept the invitation?  $\Phi$

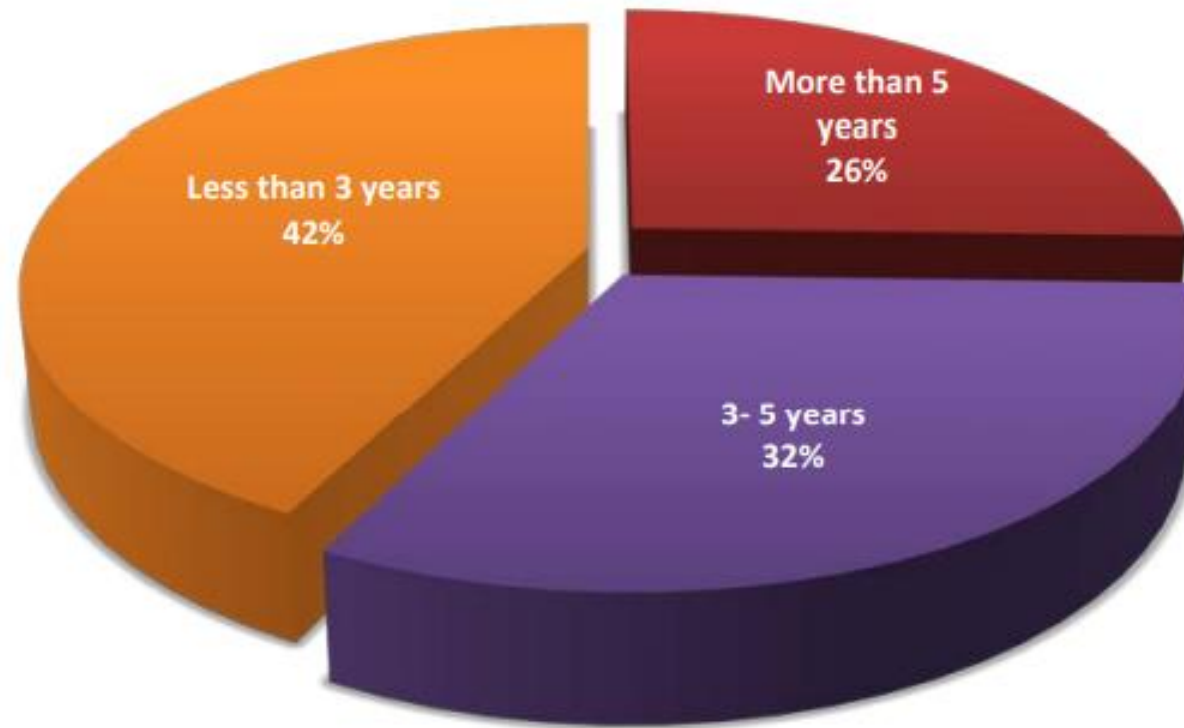
PI-3 : Which is your principle and ethics?  
(Punctuality, Honesty, Knowledge Sharing, Enviromentalism etc)  $\Omega$

PI Attainment =  $\Delta$  AND  $\Phi$  AND  $\Omega$  (Must Meet All)

Pernyataan PEO	Atribut	Soalan yang Berkaitan	Penunjuk Prestasi	Penentuan Keputusan	Formula Pengiraan	Peratus & Sasaran pencapaian
Jurutera/Arkitek yang mempunyai sahsiah dan etika, serta profesionalisma yang tinggi dan menyumbang kepada Aspirasi Kebangsaan.	Etika	Pernakah anda dikenakan tindakan disiplin? ( $\Delta$ ) (2 orang)	Graduan tidak pernah dikenakan tindakan disiplin	<p>Mempunyai <math>\Delta</math> dan <math>\Phi</math> dan <math>\Omega</math></p> <p><b>Rational:</b> Graduan UKM tidak dikenakan tindakan disiplin dan faham tentang etika dan kepentingan dalam sesebuah organisasi</p>	<p><b>Formula:</b> (Bilangan graduan yang tidak dikenakan tindakan disiplin) – (Bilangan graduan yang tidak memahami dan mempraktiskan etika dalam amalan kerja)</p> <p><b>(Positif <math>\Delta</math> – Negatif <math>\Phi</math> <math>\Omega</math>)</b></p>	<p>Semua Kohort: <b>89%</b></p> <p>Kohort Selepas 5 Tahun: <b>85%</b></p> <p><b>Sasaran Pencapaian: 100%</b></p> <p><b>Justifikasi:</b> Fakulti memandang serius tentang tindakan disiplin dan tidak beretika dan seharusnya semua graduan FKAB adalah beretika dan berdisiplin</p>
		Jika pembekal ingin membelanja anda makan tengahari atau malam, anda menganggapnya sebagai: Biasa, Rasuah, Hadiah	Graduan berketahanan (tidak terpengaruh) dengan perkara yang tidak bermoral.			
		Berdasarkan soalan sebelum ini, adakah tindakan vendor itu mempengaruhi keputusan anda ( $\Phi$ )				
		Yang manakah merupakan prinsip atau etika anda? ( $\Omega$ )	Graduan faham maksud etika dan menjadikannya satu amalan dalam kehidupan mereka			



# PEO RESULT ANALYSIS

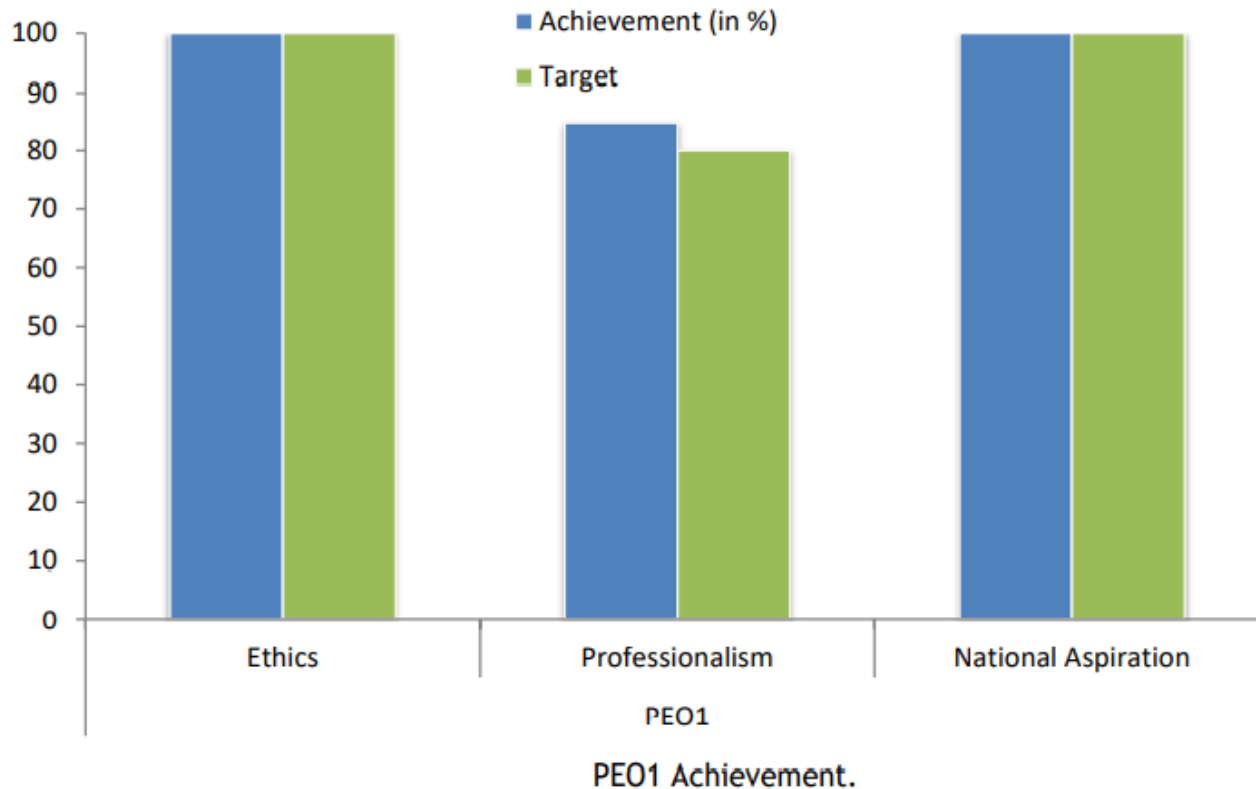


Survey respondent groups classified based on number of years after graduation.



# PEO1

## PEO1 Achievement



Performance Targets and Actual Achievement for PEO 1.

Performance Indicator	Performance Targets of Focus Group	Actual Achievement of Focus Group
Percentage of graduates (> 5 years) contribute towards national aspiration	100%	100%
Percentage of graduates (> 5 years) with ethics attribute	100%	100%
Percentage of graduates (> 5 years) with professional attribute	80%	85%

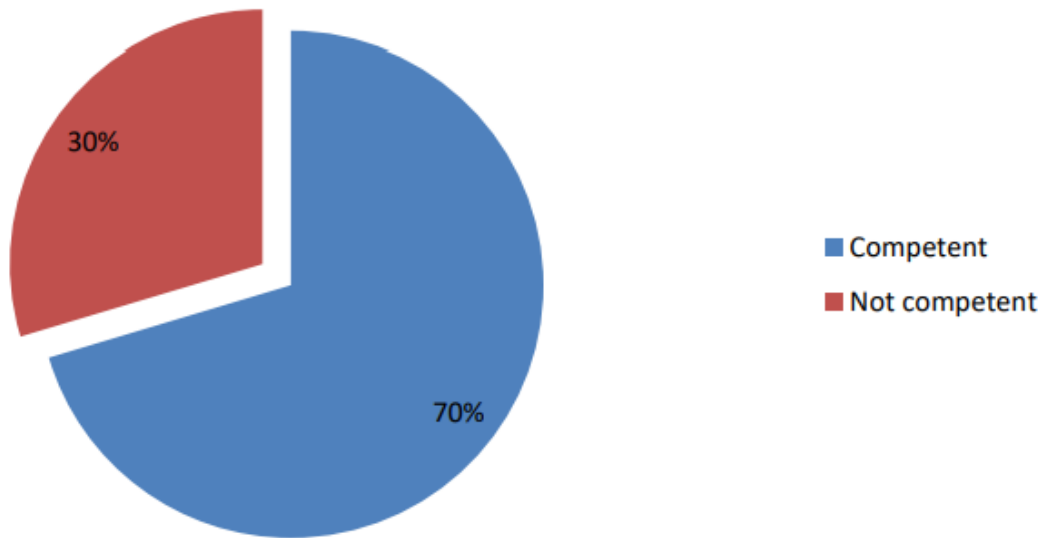
### PEO1

*Engineer/Architect who has **character and ethics**, as well as **high professionalism** and contributes to the **National Aspirations***



# PEO2

## Competency (>5 years)



PEO2 Achievement.

Performance Targets and Actual Achievement for PEO 2.

Performance Indicator	Performance Targets of Focus Group	Actual Achievement of Focus Group
Percentage of graduates (more than 5 years) with competency	50%	70%

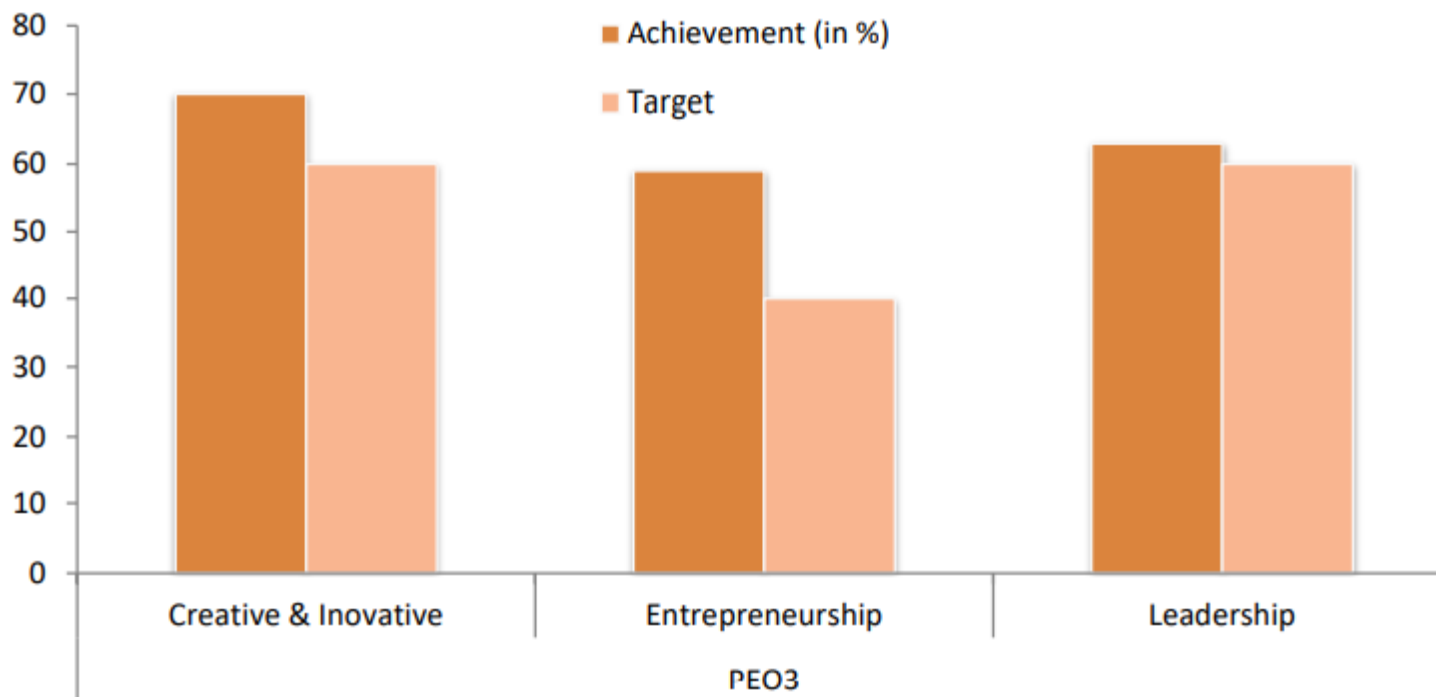
## PEO2

*Engineer/Architect who is **competent** in respective engineering practices that meets current and future needs.*



# PEO3

## PEO3 Achievement



PEO 3 achievement level.

Performance Targets and Actual Achievement for PEO 3.

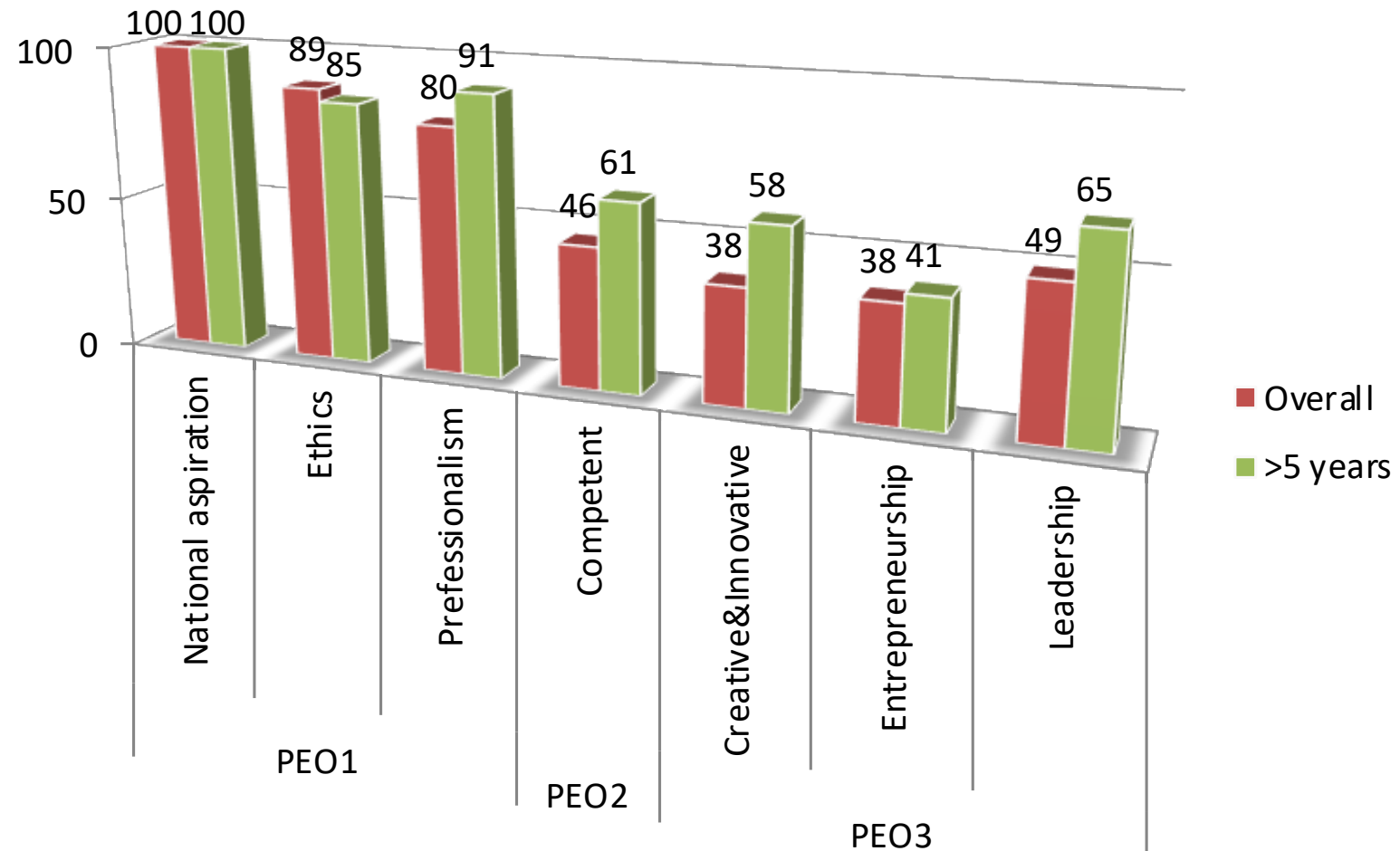
Performance Indicator	Performance Targets of Focus Group	Actual Achievement of Focus Group
Percentage of graduates (> 5 years) registered with leadership skills	60%	63%
Percentage of graduates (> 5 years) that innovative and creative	60%	70%
Percentage of graduates (> 5 years) that involve with entrepreneurship	40%	59%

## PEO3

*Engineer/Architect who has a creative and innovative, entrepreneurial and leadership qualities that are glocal.*

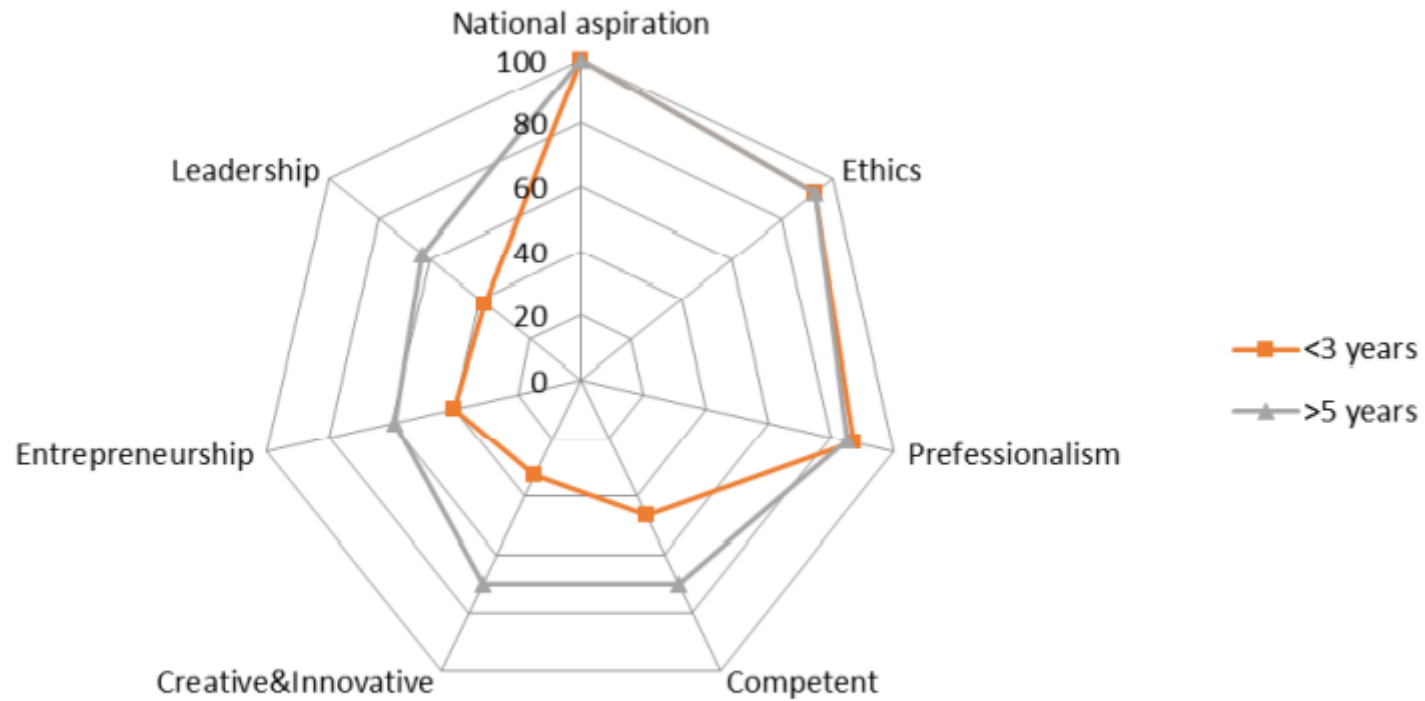


Attributes	National Aspiration	Ethics	Professionalism	Competent	Creative & Innovative	Entrepreneurship	Leadership
Target Achievement	100	100%	80%	50%	60%	30%	60%



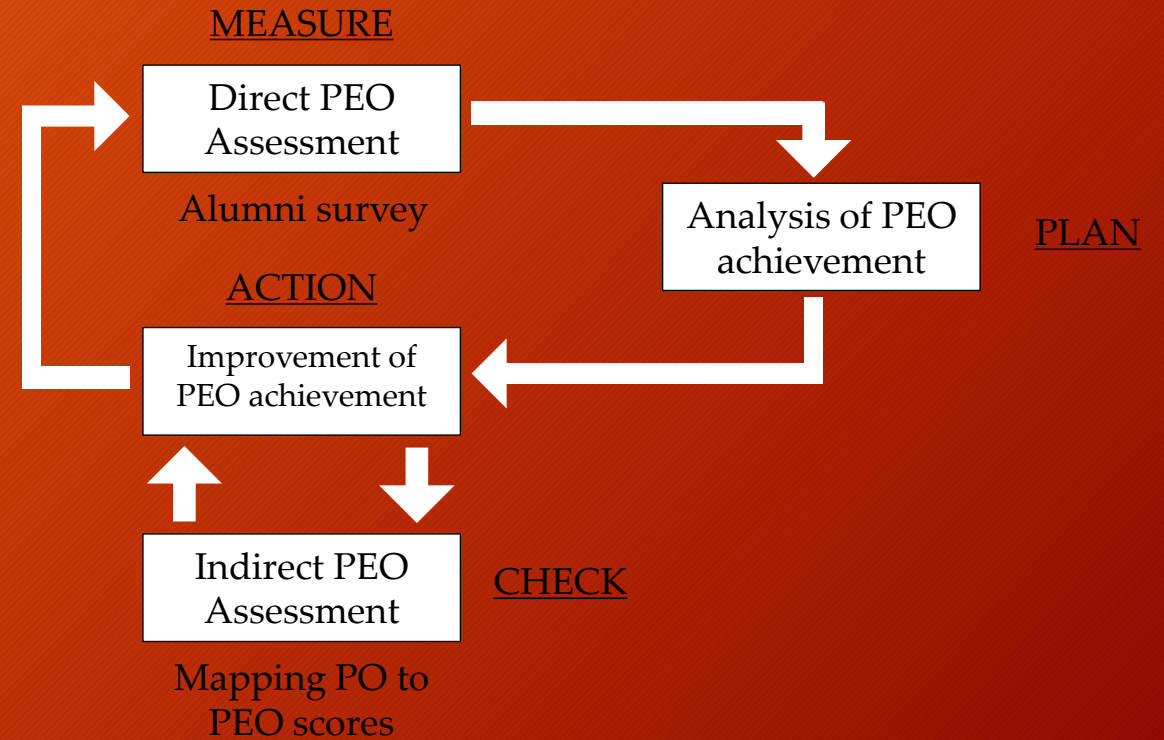
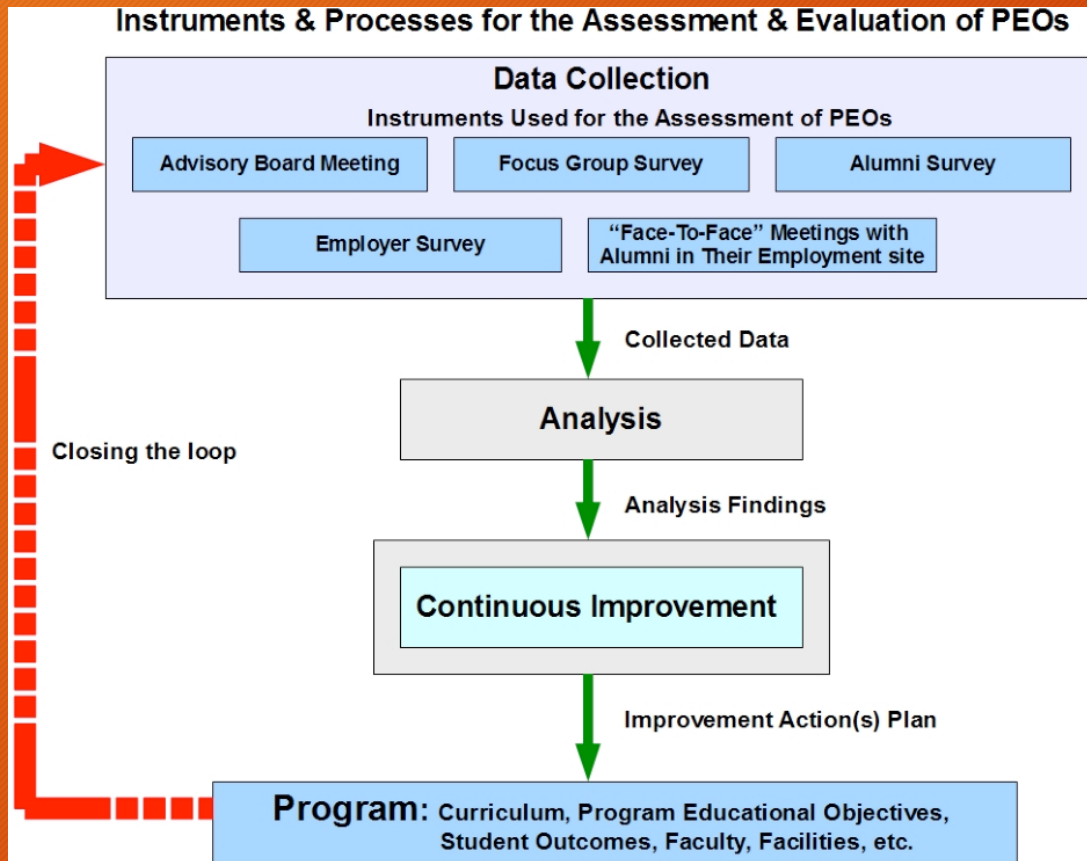


# PEO ATTAINMENT



PEO Achievement comparison between <3 years and >5 years.

# CQI CYCLE





# CONCLUSION

- An assessment and review PEO differences among Malaysian universities is one way to recognize the skills and attributes needed by electrical and electronics engineering graduates. Majority of EE engineering have at least three main domains identified throughout this research on public, private or foreign branch university in Malaysia.
  - First, these electrical and electronic engineers required to be professionally (PEO03) qualified with in-depth knowledge in their respected fields.
  - Secondly, employers needed talent engineers with leadership (PEO08) traits who can bring significant impact and changes to their organization.
  - Thirdly, the engineers are seen by most to in referring to many technical matters. It is, therefore, important for them to have high ethics and excellent professionalism (PEO07) in the professional background. All three qualities are attributes capable of building up the nation.
- The assessment of PEO can be organized directly and indirectly, the respondents are alumni and employer. The performance indicator must be set reflectively and logically, or other algorithm can be used to evaluate the PEO attainment.
- The PEO attainment useful to indicate the relevancy of the program and to evaluate the effectiveness of effort to strengthen the attributes among the students