

CASE STUDY (appendix D – manual 2019 ; F - 2016)

Instruction

In group of 3 persons study the following report and make necessary suggestion (*those in italic*) if you don't agree with opinion by the team of visiting panel.

All Groups

APPENDIX D

ENGINEERING TECHNOLOGY ACCREDITATION COUNCIL

Evaluation Panel Report

Name of IHL:

POLITEKNIK BANTING SELANGOR (PBS)

Programme for Accreditation:

DIPLOMA IN MECHANICAL ENGINEERING (MANUFACTURING)

General Remarks

To be filled during the end of the meeting/visit

Introduction about the IHL: **below is the sample (need to write the observation)**

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.....

..... has successfully obtained the Malaysia Qualification Agency (MQA) with programme code JPT/BPP/(N/523/6/0169) 06/19 MQA 9951. It is a 4-year full time programme conducted in English and Bahasa Malaysia. The first of batch of students has enrolled in the program in 2004.

The current full cycle accreditation exercise was conducted on 26th March 2018 and 27th March 2018 to cater for cohorts graduating in **2018 and onwards**.

A pre-visit, Day-1 meeting was held on the night of 25th March 2018 to go through panel findings based on the self-assessment report (SAR) submitted by the IHL, to identify areas that needed further triangulation and evidences, as well as to review the accreditation criteria as stipulated in the ETAC Manual 2016. This is a new cycle and the first ETAC accreditation for the programme.

Commitment by the top management was indicated by the presence of the Deputy President, Dean of the Faculty, Heads of Department, senior management team and the programme coordinators during the opening meeting on the 26th March 2018.

A QUALIFYING REQUIREMENTS

1	Minimum 90 SLT credit units of which 60 SLT credit units must be engineering technology subjects	YES
2	Final year project	YES
3	Industrial training	YES
4	Minimum of 8 full-time teaching staff	YES
5	Teaching Staff: student ratio of 1: 20 or better	YES
6	External examiner's report	YES
7	Programme Educational Objectives	YES
8	Programme Outcomes	YES

B ASSESSMENT

* Delete where applicable

Group 1

ASSESSMENT CRITERIA

1 CRITERION 1: PROGRAMME EDUCATIONAL OBJECTIVES

Comments/Remarks on Programme Educational Objectives: The Evaluation Panel shall comment on the appropriateness of the Programme Educational Objectives as required by Section 4.0 and 8.1 of the Manual.

1.1 General Observations:

The Programmes Objectives (PEOs) statements are defined. The programme has four (4) PEOs that are in line with the mission and vision of Department of Polytechnic Education (JPP) as well as stakeholder's (MoHE, students, lecturers, alumni and industry) expectations.

The PEOs can reflect the students' attributes 3-5 years after graduation. The linkage between PEO and PLO has been established through a relationship matrix. The PEOs state that the graduates are expected to competent in knowledge and skills in the field of mechanical and manufacturing engineering according to the industry requirements.

The graduates also expected to possess generic professional skills such as communication skills, leadership, team work, ethical and social responsible, entrepreneurship, lifelong learning in order to have a successful career advancement and able to adapt themselves with the new technological challenges in mechanical and manufacturing fields.

The attainment of the PEOs should reviewed to ensure that they are relevant and reflective of the intended program.

Only the PLOs (Programme Learning Outcomes) are clearly stated in the Curriculum Information Document Online System (CIDOS) platform, Student Study Guide as well as displayed at classroom pathways and workshop areas in Mechanical Engineering Department. Students are also aware of the PLOs from the beginning of their studies in Orientation Week during Head of Programme session. They are also reminded from time to time throughout the duration of study such as during the lecture session.

My proposal:

Propose if the PEOs can be published in the PBS's website and other strategic location throughout the campus as well as publication in politeknik programme booklets (academic handbook), staff handbook, programme brochures and other media such as prospectus and annual report.

Panel Opinion: U = Unsatisfactory, S = Satisfactory, G = Good

Your Opinion: U = Unsatisfactory, S = Satisfactory, G = Good

Symbol will be put in during the site visit (below only sample)

Performance Indicators	U	S	G
Statements are well defined, measurable and achievable		✓	
Statements are well published and publicised		✓	
Clear linkage between Programme Educational Objectives and Programme Outcomes		✓	
important stakeholders provide inputs in the process	✓		
A documented and effective process, involving programme stakeholders, for the periodic review and revision	✓		

2 CRITERION 2: PROGRAMME OUTCOMES

Comments/Remarks on Programme Outcomes: The Evaluation Panel shall comment on the appropriateness of the Programme Outcomes as well as the Processes and Results as required by Section 5.0 and 8.2 of the Manual.

2.1 Observation on Programme Outcomes:

The programme specifies 11 Programme Learning Outcomes (PLOs) covering 11 generic Programme Outcomes as required by Section 5.0 of the ETAC Manual 2016 and ETAC Manual 2019. Only PLO on Project Management and Finance was not stated in the DTP PLOs. The 11 Programme Learning Outcomes (PLOs) are mapped to 4 Programme Objectives (POs).

The Programme Learning Outcomes (PLOs) have been defined but do not properly followed the contents and sequence of engineering graduates required by the latest sequence of ETAC Manual 2016 and 2019. It should followed as per ETAC manual 2016 or 2019:

PLO1 – Knowledge
PLO2 - Problem analysis
PLO3 - Design/development of solutions
PLO4 - Investigation
PLO5 – Modern Tool Usage
PLO6 - The Engineer and Society
PLO7 - Environment and Sustainability
PLO8 - Ethics
PLO9 - Individual and team work
PLO10 – Communication
PLO11 – Project Management and Finance
PLO12 – Life Long Learning

The programme outcomes have been satisfactorily defined but do not properly followed the sequence of engineering graduates required by the latest sequence of ETAC Manual 2015. The Programme Outcomes (POs) are designed to support the achievement of the PEOs, and thus the mission and vision of the IHL.

There is an OBE system in place to assess the course outcomes however the CQI loop is not closed at the programme and course levels. There is also a system to assess the attainment of individual Programme Learning Outcome for an individual course conducted at the end of the semester for each course in the programme. The POs are published in the IHL website, university programme booklets (academic handbook), and displayed at various locations within the IHL.

2.2 Observation on Processes and Results:

The evaluation on the attainment of the Programme Outcomes is based on the Direct and Indirect measurement methods. It is evaluated using the grades of all assessments conducted. The assessment methods such as final examination, mid-term examinations, assignments, projects, presentations and laboratory reports are conducted for each course. All assessments, except the final examination, are conducted throughout the semester.

Every assessment undertaken by the students is mapped to the related Course Learning Outcomes. The mappings of the marks/grade obtained by the students are used to measure the attainment of the Course Learning Outcomes. For the evaluation of the course, average marks of the class are used. Once the evaluation of the Course Learning Outcomes has been performed, the attainment of the POs can be measured. This is performed using the Course learning Outcomes – POs matrix in the Course Evaluation Report (CER) developed at the end of the semester. The evaluation for each individual course is performed by the Subject Leader. The indirect assessment consists of Entry Survey, Exit Survey, Industry Survey, External Examiner Report and Industrial Advisory Board. These are regarded as indirect assessment as they are based on perception of the

respondents to a set of propositions.

The IHL under its Centre of Instructional Technology and Curriculum Development (CITC) has formulated the IHL Learning outcomes Attainment Measurement Systems (LOAMS) to measure the attainment of POs at course, student and programme level. The IHL Learning outcomes Attainment Measurement Systems (LOAMS) enables the IHL to measure the attainment of POs with respect to each CLOs of the course as stipulated in the Course Syllabus. The CLOs attainments are based on the assessment methods used for the course and the marks obtained represent the attainment for each CLO. Course Performance Indicator is set to indicate the attainment level of the course. CLOs attainments for the course are not analysed for the CQI improvement purpose and the CQI loops are not closed at the course levels.

For the POs attainment reporting, the information from Students' CLO attainment is used to indicate the POs achievement. POs attainment reporting indicates student achievement towards POs for the course, contributing to the overall programme attainment. However, the CQI loops are not closed at the programme levels. Overall, the panel found that the programme has not demonstrated the direct and explicit assessment of each of the 12 generic graduate attributes as stipulated in the ETAC Manual 2015 where the computational of CLOs to PLOs are done via averaging of assessment that lead to inaccurate reflection of CLOs and PLOs.

From the sampled files, it was observed that constructive alignment between the assessment and POs needs to be improved such that the results obtained truly reflect the attainment of the intended levels.

2.3 Observation on Stakeholder Involvement:

An established process of stakeholder involvement with systematic evaluation of continual quality improvement (CQI) within the IHL is in existence and is an on-going process. It is observed that the involvement of the stake holder is minimum in providing inputs to the establishment and reviewing the POs.

Panel Opinion: U = Unsatisfactory, ~~S = Satisfactory~~, G = Good

Your Opinion: U = Unsatisfactory, S = Satisfactory, G = Good

Performance Indicators	U	S	G
Statements are well defined, measurable and achievable		✓	
Statements are well published and publicised		✓	
A documented process for assessing and evaluating the extent to which the Programme Outcomes are being attained has been established		✓	
Results of these evaluations must be systematically utilized as input for the continuous improvement of the program	✓		
important stakeholders provide inputs in the process	✓		

Overall Comments/Remarks:

Category	Panel: *Unsatisfactory/Satisfactory/Good	Yours: <i>*Unsatisfactory/Satisfactory/Good (Tick if you agree or write your suggestion if you don't)</i>
Strength	-	
Weakness	-	
Concern	<ol style="list-style-type: none"> 1. CQI loops are not closed at the course and program levels. 2. The computational of CLOs to PLOs are done via averaging of assessment that lead to inaccurate reflection of CLOs and PLOs. 3. Constructive alignment between the assessment and POs needs to be improved. 	
Opportunity for Improvement	<ol style="list-style-type: none"> 1. The programme outcomes have been satisfactorily defined but do not properly followed the sequence of engineering graduates required by the latest sequence of ETAC Manual 2015. 	

Group 2

3 CRITERION 3 : ACADEMIC CURRICULUM

3.1 SLT Credit Units

(a) Total number of SLT credit units

The total number of credits is 140 which has fulfilled the ETAC minimum requirement of 140.	U	S	G
		✓	

(b) Number of SLT credit units for engineering technology subjects

The total number of credits for engineering subjects is 102,	U	S	G
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which has fulfilled the ETAC minimum requirement of 100.		✓	
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(c) Number of SLT credit units for other related general education subjects

The total number of credits for non-engineering subjects is 38.	U	S ✓	G
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3.2 The Curriculum

(a) Programme Structure, Course Contents, and Balanced Curriculum

Observation	Performance		
	U	S	G
<p>In general, the curriculum of the Bachelor of Engineering Technology (Hons) in Electronic is appropriate in which the curriculum gives a broad overview of electronic engineering principles in the first three years of study and then introduces more in-depth and specialized subjects in the core specialization.</p> <p>The programme practices eight (8) semesters with one of the semesters dedicated for industrial training. The IHL adopted new semester system of 17-week since January 2017. The total credit unit of 140 for the program fulfils the Engineering Technology Accreditation Council (ETAC) requirement. The allocation of credit units is such that 38 units for the general education subjects, 94 units for the engineering technology courses and 8 units for the core specialization courses. The distribution of credit hours is somehow on high side for Year 2 and Year 3, that is 20 credit hours.</p> <p>The curriculum was found to be balanced in addressing majority of the POs and the knowledge profile (SK1 to SK8) is sufficiently covered.</p> <p>For most of the discipline core courses, the practice-oriented components more than 50% of the face to face time.</p> <p>The credit loading over 8 semesters are as follows:</p> <ul style="list-style-type: none"> • Semester 1 : 13 credits • Inter Semester: 5 credits • Semester 2: 18 credits • Semester 3: 17 credits • Semester 4: 20 credits 		✓	

<ul style="list-style-type: none"> • Semester 5: 20 credits • Semester 6: 20 credits • Semester 7: 18 credits • Semester 8: 12 credits 			
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(b) Programme Delivery and Assessment Methods

Observation	Performance		
	U	S	G
Generally, the programme delivery includes methods such lecture, tutorial and laboratory, and PBL. Assessment methods include assignments, tests, online tests, lab reports, practical assessment, examination and so on. The mapping of the course outcomes of some courses to the programme outcomes and the alignment of assessment methods to the course outcomes need to be harmonised at the programme level to ensure students to effectively develop the required outcomes.		✓	

(c) Practice-oriented components

Observation	Performance		
	U	S	G
Engineering technology programme shall ensure that 40 50% time should be allocated for practice-oriented components. Students should be able to practise engineering skills to complement engineering theory that is learnt through lectures. Practice oriented learning experiences should engage students with the use of facilities, equipment and instrumentation reflective of current industry practice which will help in developing competence in executing applied and experimental work. Students are working in group between 2 and 3 in the laboratories.		✓	

(d) Final-Year Project/Design Project

Observation	Performance		
	U	S	G
<p>The final year project is conducted individually with different title.</p> <p>The contents of the final year project were found to be varied among student. The final year projects are carried in two parts i.e. the FYP 1 in semester 6 and FYP 2 in semester 7 where both carried out 4 credit hours and 6 credit hours respectively.</p> <p>The FYP supervisors are academic staff divided into their groups of expertise where students are assigned according to their 10 credit hours FYP project topics based on the</p>		✓	

<p>relevancy to the industry and current engineering research.</p> <p>The format of the students FYP hard-bound reports is found to be not consistent though the IHL have Final Year Project Handbook to be referred with.</p> <p>Based on two semester result presented, 10 out of 12 students obtained 'A' and 'A-' graded for January 2017 and 22 students out of 26 students obtained 'A' and 'A-' graded for July 2017. From the sampling of 'A' grade, some of the final year reports show appropriate standards, others (30 %) show lack of referencing and discussion.</p> <p>The percentage allocated for or dependent on supervisor is found to be high which is 65 % for FYP 1 and 60 % for FYP 2. It has typical assessment of progress based on logbook, presentation, demonstration, project proposal and final project report. Progress report and report are assessed by the supervisor while the presentations are evaluated by other faculty members and industry practitioners.</p>			
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(e) Industrial Training

Observation	Performance		
	U	S	G
<p>The industrial training is conducted in the 8th semester with the duration of 24 weeks with 9 credits. The IHL has made it mandatory with immediate effect from Jan 2018 onwards. The assessment consists of presentation, company evaluation, logbook and industrial report. The presentation is carried out at the training premises with the presence of both supervisors (industry and academic). In general, from the records of the past semesters, students were placed at suitable engineering organisations.</p>		✓	

(f) Training in Engineering Practice

Observation	Performance		
	U	S	G
<p>Over 50% of the academic staff have more than 2 years industrial experience which is beneficial to the programme and students. From the records and interviews, there are industrial visits and talks organised for the students.</p>		✓	

Comments/Remarks/Recommendations:

Category	Panel: *Unsatisfactory/Satisfactory/Good	Yours: *Unsatisfactory/Satisfactory/Good (Tick if you agree or write your
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		<i>suggestion if you don't)</i>
Strength	-	
Weakness	-	
Concern	1. FYP needs to tighten the Rubric. While the moderation process must be introduced.	
Opportunity for Improvement	1. The load of credit hours for Year 2 and Year 3 is high. Consider reducing the credit hours in Year 2 and Year 3.	

Group 3

4 CRITERION 4 : STUDENT

4.1 Student Admission

(a) Entry requirements (Academic)

Observation	Performance		
	U	S	G
<p>The DTP programme enrolment are students from Malaysia Certificate of Education (SPM) holders, Polytechnic Certificate holders, Community College Certificate holders, Penang Regional Development Authority (PERDA) Tech Institute Certificates holders, People’s Trust Council (MARA) Skills Institute Certificate holders and Malaysians Skills Certificate holders.</p> <p>For Malaysia Certificate of Education (SPM) holders:</p> <ul style="list-style-type: none"> • Malaysian Citizen • Has PASSED SPM or its equivalents and meets the following minimum entry requirements: <ol style="list-style-type: none"> i. Pass in Bahasa Melayu (Malay Language) ii. Pass in English Language iii. Pass in Sejarah (History) – (SPM 2013 onwards) iv. THREE (3) credits for the following subjects in SPM <ol style="list-style-type: none"> a) Mathematics or Additional Mathematics b) ONE (1) subject from the science/technical/vocational grouping of subjects c) Any subjects not accounted for from (a) d) Or any other credit that has not been included <p>Students also does not have any disability that will hinder practical work.</p> <p>For Polytechnic Certificate holders:</p> <ul style="list-style-type: none"> • Malaysian Citizen • Has PASSED SPM with ONE (1) credit • Has a Polytechnic Certificate in the following fields: <ol style="list-style-type: none"> i. <p>The programme enrolment are students from Matriculation and Diploma in Engineering / Engineering Technology. Applicants are required to possess English language proficiency in the following ways:</p> <p>(a) Minimum band 2 of Malaysian University Examination</p>		✓	

<p>Test (MUET); or (b) Minimum band 4.0 of IELTS (c) Minimum 450 of TOEFL</p> <p>Student also must fulfil the following requirements: (a) not blind; and (b) not colour blind</p> <p>Students must obtain a good pass (minimum CGPA of 2.00) in mathematics, sciences and technical subjects in STPM, Matriculation, IB and Diploma.</p> <p>However, the entry requirement also includes passed in HND and STAM but without a good pass in mathematics and sciences.</p>			
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- (b) Transfer Policy/Selection Procedures/Appropriateness of arrangements for Exemptions from part of the course

Observation	Performance		
	U	S	G
<p>The IHL has a clear policy in allowing the students to transfer or exempt their credit hours once they are accepted for the programme.</p> <p>The student can only transfer credit up to a maximum of 30% and this is in compliance with the ETAC Manual 2015.</p> <p>The policies and processes for Credit Transfer and Course Exemption are outlined in the Guidelines and was made available in the SAR and during the visit.</p> <p>However, the endorsement of the credit transfer been done only by head of credit transfer officer without proper meeting. (whereas in the guidelines stated the approval must be by the Dean)</p>		✓	

4.2 Student Development

- (a) Student counselling

Observation	Performance		
	U	S	G
<p>There were dedicated qualified counsellors in the IHL that taking care for the non-academic, co-curricular and individual issues. The academic lecturers were assigned as Academic Advisors.</p> <p>Observation has shown that two (2) qualified councillors are assigned to provide professional advice to the students. The Career Department provides career advice and guidance to</p>		✓	

the students for their future engagement, such as preparation for job interviews, aptitude tests and career fairs.			
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(b) Workload

Observation	Performance		
	U	S	G
<p>Generally, the workload of the student is about 18 to 20 credit per semester. Maximum of 23 credit per semester is allowed with the approval from the Dean's office.</p> <p>The workload for first year (semester 1), second year (semester 2), third year (semester 2) and fourth year (semester 1), are slightly exceeding the ETAC recommended 17 – 18 credit per semester, but from the interview sessions students generally be able to handle with this workload and still have time for extra co-curricular activities.</p> <p>However, the changes from 14 weeks per semester academic calendar to 17 weeks per semester was not convenient to the students.</p>		✓	

(c) Enthusiasm and motivation

Observation	Performance		
	U	S	G
<p>A total of 25 students were interviewed from various year of study and they had demonstrated a commendable motivation level and enthusiasm during the Interview Session.</p> <p>Students managed to communicate well and are very confident to provide constructive opinions and thoughts towards the improvement of the programme and curriculum. They are very proud of the programme.</p>			✓

(d) Co-curricular activities

Observation	Performance		
	U	S	G
<p>Students are active in co-curricular activities. There are 35 student's clubs and societies which organises various types of activities inside as well as outside the campus.</p> <p>Besides activities, students have been encouraged to join various competitions. By joining these competitions, students are expected to expand their knowledge to be more innovative and creative. The entrepreneurship day had been organized to experience the student to become</p>		✓	

entrepreneur as highlight by the IHL.			
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(e) Observed attainment of Programme Outcomes by students

Observation	Performance		
	U	S	G
<p>Through random samples of the students' work, majority of the outcomes were observable. However, during the interview sessions, students were not aware of their PO achievement in relation to the OBE implementation at IHL.</p> <p>IHL is recommended to provide more training and create more awareness on OBE in general.</p> <p>During the Student Interview Session, students were aware of the need and commitment to life-long learning.</p>		✓	

Comments/Remarks/Recommendations:

Category	Panel: *Unsatisfactory/Satisfactory/Good	<i>Yours: *Unsatisfactory/Satisfactory/Good (Tick if you agree or write your suggestion if you don't)</i>
Strength	<ol style="list-style-type: none"> Students interviewed had demonstrated a commendable motivation level and enthusiasm. They have communicated very well and are very confident to provide constructive opinions and thoughts towards the improvement of the programme and curriculum. They are very proud of the programme. The IHL has provided good co-curricular activities especially the entrepreneurship as one of the niche area highlighted. 	
Weakness	-	
Concern	-	
Opportunity for Improvement	<ol style="list-style-type: none"> IHL is recommended to provide more training and create more awareness on OBE in general for students. IHL is recommended to improve awareness among students on the 	

	roles of BEM, importance of environment and sustainability, and the concept of lifelong learning.	
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Group 4

5 CRITERION 5 : TEACHING AND SUPPORT STAFF

5.1 Teaching Staff

(a) Number and Competency of Teaching staff

Observation	Performance		
	U	S	G
<p>The programme has 23 active academic staff which is sufficient to cover the areas of the electronics. In general, the qualification of the staff is satisfactory, 10 of full time academic staff having PhD qualifications and the rest with MSc.</p> <p>There is sufficient staffing in number and competency to cover all the courses of the programme and this is in-line with the ETAC Manual 2015.</p>		✓	

(b) Qualification, industrial experience & development

Observation	Performance		
	U	S	G
<p>Majority of the academic staff is from engineering background with 35 % with more than 2 years industrial experience. The academic staff should be registered with the Board of Engineers (BEM) as graduate member. However, based on document provided only 5 out of 23 staff registered with BEM, IHL need to encourage or assist the staff to register with BEM.</p>		✓	

(c) Research/publication/consultancy

Observation	Performance		
	U	S	G
<p>There are 7 academic staff of the section of electronics who are involved in the research, publication and consultancy. It is still below than 50 %, the IHL should encourage and motivate the staff to involve research activities.</p>		✓	

(d) Industrial involvement

Observation	Performance		
	U	S	G
<p>Industrial involvement of the teaching staffs was found to be minimal, and improvement should be made in providing opportunities to teaching staff to upgrade their competencies through training and practical exposure.</p>		✓	

(e) Teaching load/contact hours

Observation	Performance		
	U	S	G
From the interviews, the teaching load (face-to-face) is 12 hours per week. This is found to be satisfactory.		✓	

(f) Motivation and enthusiasm

Observation	Performance		
	U	S	G
From the interviews, the academic staff are found to be motivated and enthusiastic.		✓	

(g) Use of lecturers from industry/public bodies

Observation	Performance		
	U	S	G
The use of lecturers from industry and public bodies has been identified in some courses through which talks of various topics of interest pertaining to engineering exposures are given to the students and staff. However, the frequency of industrial lectures is encouraged to increase for more effective exposure.		✓	

(h) Awareness of the Outcome-Based approach to education

Observation	Performance		
	U	S	G
Majority of IHL staff are aware of the Outcome-based Education (OBE) approach though some improvements are needed on constructive alignment.		✓	

5.2 Support Staff (Laboratory and Administration)

(a) Qualification and experience

Observation	Performance		
	U	S	G
The laboratory and administrative support staff have the qualification and experience to undertake their jobs. From the interview session with the staff, the panel conclude that the administrative staff and technical staff are motivated, acceptable with their workload and working environment.		✓	

(b) Adequacy of support staff

Observation	Performance		
	U	S	G
<p>There is one (1) technician in charge of two (2) laboratories which is considered satisfactorily under the manual. This was verified during the interview session with the technical staff.</p> <p>Administration support staff was found to be acceptable in terms of workload and numbers. This was verified during the interview session with the administrative staff.</p>		✓	

5.3 Development of Staff

(a) Staff development

Observation	Performance		
	U	S	G
<p>From the records and interviews, the university provides training, sponsorship for conferences, study leave, and so on for the academic staff. Internal training is also provided for the support staff.</p>		✓	

(b) Staff assessment

Observation	Performance		
	U	S	G
<p>The staff are assessed by both students and management. The outcome is made known to the lecturers to help them improve their performance.</p>		✓	

(c) Teaching staff: student ratio

Observation	Performance		
	U	S	G
<p>From the calculations provided, the staff to student ratio is 1:7. This is considered excellent as per the ETAC Manual 2015</p>			✓

Comments/Remarks/Recommendations:

Category	Panel: *Unsatisfactory/Satisfactory/Good	Yours: *Unsatisfactory/Satisfactory/Good (Tick if you agree or write your suggestion if you don't)
Strength	1. Excellent teaching staff to student ratio (1:7).	
Weakness		
Concern		
Opportunity for Improvement	1. The involvement of the academic staff in industry can be improved. 2. IHL to provide trainings and workshops to enhance the understanding of OBE among staff.	

Group 5

6 CRITERION 6 : FACILITIES

(a) Lecture rooms - quantity provided and quality of A/V

Observation	Performance		
The IHL has provided 35 instructional lecture room facilities with capacity of 25 to 70 students with two (2) lecturer hall. The number of lecture rooms and tutorial rooms are found to be very sufficient to run the programme. The quantity of lecture room are excellent with latest technology to support the T&L.	U	S ✓	G

(b) Laboratory/workshop - student laboratory and equipment

Observation	Performance		
Overall the common facilities, Labs are adequate to support the teaching and learning activities. Systematic calibration records on laboratory equipment were made evident during visit suggesting well-maintained laboratory facilities to support teaching and learning activities. Safety and health considerations are in place and adhered too. However, there are many old equipment and suggested to be upgraded to strengthen the T&L with current technology.	U	S ✓	G

(c) IT/computer laboratory - adequacy of software and computers

Observation	Performance		
The IT facilities provided for the programme were adequate. All the software are genuine and have valid licences from the vendor. Evidence has shown that all related software is used in the programme.	U	S ✓	G

(d) Library/resource centre - quality and quantity of books, journals, and multimedia

Observation	Performance		
The library provides a spacious and conducive learning environment. The IHL has a well-managed library with sufficient resources of references covering textbooks, monographic (printed) materials, e-book, e-journals, CD, video materials, past-years examination questions and several on-line journal database subscriptions. The library has sufficient titles of books and quantity related to the programme and for the purpose of teaching and learning. Library also equip with discussion rooms, AV room with Astro, laptop corner and Café de library.	U	S ✓	G

(e) Other supporting facilities

Observation	Performance		
	U	S	G
There are adequate supporting facilities as stipulated in ETAC manual. The hostel is very good but limited and the safety aspect need to be strengthened as an accident has occurred during the audit.		✓	

Comments/Remarks/Recommendations:

Category	Panel: *Unsatisfactory/Satisfactory/Good	<i>Yours: *Unsatisfactory/Satisfactory/Good (Tick if you agree or write your suggestion if you don't)</i>
Strength	-	
Weakness	-	
Concern	-	
Opportunity for Improvement	-	

Group 6

7 CRITERION 7 : QUALITY MANAGEMENT SYSTEMS

7.1 Institutional Support, Operating Environment, and Financial Resources

(a) Sufficient to assure quality and continuity of the programme

Observation	Performance		
	U	S	G
The IHL provides a well-structured quality management system to provide quality services to satisfy the stakeholder's requirement. The involvement from top management in the quality assurance are sufficient.		✓	

(b) Sufficient to attract and retain well-qualified teaching and support staff

Observation	Performance		
	U	S	G
The IHL is able to retain and attract well qualified staff in running the programme. There is sufficient financial resources and institutional support to attract and retain well-qualified academic staff. No serious turn-over rates were observed by the panel.		✓	

(c) Sufficient to acquire, maintain, and operate facilities and equipment

Observation	Performance		
	U	S	G
The IHL has a strong financial support from internal investment, operational government grant, development grant and smart partnership with industries to acquire, maintain and operate facilities and lab equipment. This includes the compliance of associated safety aspects.		✓	

7.2 Programme Quality Management and Planning

(a) System for programme planning, curriculum development, and regular review of curriculum and content

Observation	Performance		
	U	S	G
The IHL has in place a system for programme planning and curriculum development and review as detailed in the related document. The IHL has received the ISO 9000: 2008. However, OBE awareness is not well spread among students. OBE is being implemented but the loop is yet to		✓	

<p>be closed. The IHL needs to inculcate OBE culture and strengthen the understanding of OBE concepts among students in order to enhance the proper implementation of OBE.</p> <p>Quality control / assurance needs enhancement from all points of view, particularly inputs from the IAP in order to support the programme in terms of planning, curriculum development and regular review of curriculum content.</p>			
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7.3 External Assessment's Report and Advisory System

(a) External examiners report and how these are being used for quality improvement

Observation	Performance		
	U	S	G
<p>The IHL has appointed an External Examiner (EE) for this programme. However, the report produced by the EE (in 2016) is too shallow, and no appropriate documented CQI by the IHL was observed. The EE report may not sufficiently provide the required inputs for the improvement (CQI) of this programme. The panel suggests IHL to refer to Appendix E of the ETAC Manual 2015 for guidance on the EE report.</p>	✓		

(b) Advisory panel from industries and other relevant stakeholders

Observation	Performance		
	U	S	G
<p>Only one (1) Industrial Advisory Panel (IAP) was appointed and involved in the system i.e. involved in the PEOs', POs' review, commenting on curriculum etc. No stakeholder from specific organization/association, government bodies or specific industry member. Input from stakeholder especially the IAPs in the relevant industries is mandatory to be considered for the betterment of the program.</p> <p>The IHL shall have more IAP practicing engineers or engineering technologists, and employers of engineer technologists for the purpose of planning and continuous improvement of program quality. They shall be expected to provide inputs and recommendation on an on - going basis through participation in discussion and forums etc.</p> <p>Input from interview with Industrial Advisory Panel (IAP) and other stakeholders (specific organization/association, government bodies or specific industry) was not observed due to unavailability of them.</p>	✓		

7.4 Quality Assurance

(a) System for student admission and teaching and learning

Observation	Performance		
	U	S	G
System for student admission and teaching and learning is in place and in compliance with ETAC Manual.		✓	

(b) System of assessment and evaluation of examinations, projects, industrial training, etc. including preparation and moderation of examination papers

Observation	Performance		
	U	S	G
There is good control of the confidentiality of the examination papers, SOP for issuance and printing etc. However, the moderation process for the assessment of practice-oriented component which accounts for a large portion of SLT and marks was not found.		✓	

Panel Comments/Remarks/Recommendations: *~~Unsatisfactory~~/Satisfactory/Good

Your Comments/Remarks/Recommendations: *Unsatisfactory/Satisfactory/Good

Category	Panel: *Unsatisfactory /Satisfactory/Good	Yours: <i>*Unsatisfactory/Satisfactory/Good (Tick if you agree or write your suggestion if you don't)</i>
Strength	-	
Weakness	-	
Concern	-	
Opportunity for Improvement	<ol style="list-style-type: none"> 1. To increase participation and contribution from the IAPs in all activities organised by IHL. 2. A proper EE report is required to provide the appropriate inputs for the improvement (CQI) of this programme. 3. Exam moderation form to address and check on appropriate taxonomy level is not available. 4. Better documentation system to track inputs from stakeholders such as Minutes of Meeting with stakeholders 	

	can be further improved to support the CQI process for the programme.	
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All Groups

EVALUATION PANEL ASSESSMENT REPORT SUMMARY

Category	Panel Opinion	Your Opinion Tick if you agree or write your suggestion if you don't agree
Strength	<ol style="list-style-type: none"> 1. Students interviewed had demonstrated a commendable motivation level and enthusiasm. They have communicated very well and are very confident to provide constructive opinions and thoughts towards the improvement of the programme and curriculum. They are very proud of the programme. 2. The IHL has provided good co-curricular activities especially the entrepreneurship as one of the niche area highlighted. 3. Good teaching staff to student ratio (1:7). 	
Weakness	Nil	
Concern	<p>MAJOR CONCERN</p> <ol style="list-style-type: none"> 1. PROGRAMME OUTCOMES <ol style="list-style-type: none"> a) CQI loops are not closed at the course and program levels. b) The computational of CLOs to PLOs are done via averaging of assessment that lead to inaccurate reflection of CLOs and PLOs. c) Constructive alignment between the assessment and POs needs to be improved. <p>MINOR CONCERN</p> <ol style="list-style-type: none"> 1. ACADEMIC CURRICULUM <ol style="list-style-type: none"> a) FYP needs to tighten the Rubric. While the moderation process must be introduced. 	

Opportunity for Improvement	<ol style="list-style-type: none"> 1. The attainment of the PEOs to be reviewed as to ensure that they are relevant and reflective of the intended program. 2. The programme outcomes have been satisfactorily defined but do not properly followed the sequence of engineering graduates required by the latest sequence of ETAC Manual 2015. 3. Student loading for Year 2 and Year 3 is on the high side. Consider reducing the credit hours in Year 2 and Year 3. 3. IHL is recommended to provide more training and create more awareness on OBE particularly for students. 4. IHL is recommended to improve awareness among students on the roles of engineers, importance of environment and sustainability, and the concept of lifelong learning. 5. The involvement of the academic staff in industry can be improved. 6. IHL to provide trainings and workshops to enhance the understanding of OBE among staff. 7. To increase participation and contribution from the IAPs in all activities organised by IHL. 8. A proper Ext. Examiner report is required to provide the appropriate inputs for the improvement (CQI) of this programme. 9. Exam moderation form to address and check on appropriate taxonomy level is not available. 10. Better documentation system to track inputs from stakeholders such as Minutes of Meeting with stakeholders can be further improved to support the CQI process for the programme. 	
Recommended Discipline	Electronics	

Date of Visit: 26th & 27th March 2018
Programme Title: Bachelor of Electronics Engineering Technology (Hons)
Faculty: Electronic Technology

Panel Recommendation:

Full Accreditation (6 years)

Condition(s) to meet/Recommendation for further improvement

SIX (6) years accreditation with interim report within 3 years for graduates of 2018, 2019, 2020, 2021 2022 and 2023 and the following conditions apply:

- To address and close ALL CONCERNS.
- To address all OFI as part of the CQI of the programme.

Justification: There are NO weaknesses, but ONE (1) major concern and ONE (1) minor concern.

Accreditation (1 year/2 years/3 years/4 years/5 years)

Conditions to meet /Recommendation for further improvement

Your Recommendation:

Full Accreditation (6 years)

Condition(s) to meet/Recommendation for further improvement

.....
.....

- To address and close ALL CONCERNS.
- To address all OFI as part of the CQI of the programme.

Justification:

.....

Accreditation (1 year/2 years/3 years/4 years/5 years)

Conditions to meet /Recommendation for further improvement

Decline Accreditation

Comments:

Prepared and submitted by Evaluation Panel:

(i) Chairman:

Signature: 

(ii) Member:

Signature: 

(iii) Member:

Signature: 

Date: **5th April 2018**

ACTION BY ENGINEERING TECHNOLOGY ACCREDITATION COUNCIL (ETAC)

Date Received by the ETAC: 05/04/2018

Comments by the ETAC:

- (i) _____
- (ii) _____
- (iii) _____
- (iv) _____

Recommendation by ETAC

Concurs with Evaluation Panel

* Yes/No

If not agreeable with Evaluation Panel's recommendation, ETAC recommendations are:

(i) Full Accreditation (6 years)

Condition(s) to meet/Recommendation for further improvement

(ii) Accreditation (1 year/2 years/3 years/4 years/5 years)

(iii) Decline Accreditation

Reasons

(iv) Condition(s) to meet

Reasons

ACTION BY SECRETARIAT

- (i) Date of Transmission of decision to BEM

- (ii) Date of Transmission of decision to MQA

- (iii) Date of Transmission of decision to JPA

- (iv) Date of Issue of Accreditation Certificate
