هيئة جودة التعليم والتدريب
Education & Training Quality Authority
KINGDOM OF BAHRAIN مملكة البحرين

Directorate of Higher Education Reviews Programme Review Report

Bahrain Polytechnic
School of Engineering
Bachelor of Engineering Technology
Kingdom of Bahrain

Site Visit Date: 19-21 February 2024

HA109-C3-R109

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Acronyms

APR	Academic Programme Review
AI	Artificial Intelligence
ASSQAC	Academic Standards, Strategy & Quality Assurance Committee
BEngTech	Bachelor of Engineering Technology
BP	Bahrain Polytechnic
BQA	Education & Training Quality Authority
CAG	Curriculum Advisory Group
CILO	Course Intended Learning Outcome
CLP	Co-operative Learning Project
CTTL	Certificate in Tertiary Teaching and Learning
DHR	Directorate of Higher Education Reviews
EDICT	Engineering, Design and Information and Communications Technology
FQM	Faculty Quality Manager
HEI	Higher Education Institution
ICT	Information and Communications Technology
LMS	Learning Management System
LLC	Library Learning Centre
NQF	National Qualifications Framework
PAD	Programme Approval Document
PBL	Problem and Project Based Learning
PILO	Programme Intended Learning Outcome
QA	Quality Assurance
QMS	Quality Management System
SER	Self-Evaluation Report
ToR	Terms of Reference

I. Introduction

In keeping with its mandate, the Education & Training Quality Authority (BQA), through the Directorate of Higher Education Reviews (DHR) carries out two types of reviews that are complementary. These are: Institutional Reviews, where the whole institution is assessed; and the Academic Programme Reviews (APRs), where the quality of teaching, learning and academic standards are assessed in academic programmes within various colleges according to specific standards and indicators as reflected in its Framework.

Following the revision of the APR Framework at the end of Cycle 1 in accordance with the BQA procedure, the revised APR Framework (Cycle 2) was endorsed as per the Council of Ministers' Resolution No.17 of 2019. Thereof, in the academic year (2019-2020), the DHR commenced its second cycle of programme reviews.

The Cycle 2 APR Review Framework is based on four main Standards and 21 Indicators, which forms the basis of the APR Reports of the Higher Education Institutions (HEIs).

The **four** standards that are used to determine whether or not a programme meets international standards are as follows:

Standard 1: **The Learning Programme**

Standard 2: **Efficiency of the Programme**

Standard 3: **Academic Standards of Students and Graduates**

Standard 4: **Effectiveness of Quality Management and Assurance**

The Review Panel (hereinafter referred to as 'the Panel') decides whether each indicator, within a standard, is 'addressed', 'partially addressed' or 'not addressed'. From these judgements on the indicators, the Panel additionally determines whether each of the four standards is 'Satisfied' or 'Not Satisfied', thus leading to the programme's overall judgement, as shown in Table 1 below.

Table 1: Criteria for Judgements

Criteria	Judgement
All four Standards are satisfied	Confidence
Two or three Standards are satisfied, including Standard 1	Limited Confidence
One or no Standard is satisfied	No Confidence
All cases where **Standard 1** is not satisfied	

The APR Review Report begins with providing the profile of the programme under review, followed by a brief outline of the judgement received for each indicator, standard, and the overall judgement.

The main section of the report is an analysis of the status of the programme, at the time of its actual review, in relation to the review standards, indicators and their underlying expectations.

The report ends with a Conclusion and a list of Appreciations and Recommendations.

II. The Programme's Profile

Institution Name*	Bahrain Polytechnic
College/ Department*	Faculty of Engineering, Design and Information and Communications Technology/ School of Engineering
Programme/ Qualification Title*	Bachelor of Engineering Technology (Mechanical) Bachelor of Engineering Technology (Electrical) Bachelor of Engineering Technology (Electronics)
Qualification Approval Number	Resolution Res2009.89 approved by the Bahrain Polytechnic Academic Board on 31 August 2009 (Mechanical, Electronics) Bahrain Polytechnic Academic Board Resolution No. (Res2018-111) of 2018 (Electrical)
NQF Level	8 (all majors)
Validity Period on NQF	5 years from the date of re-validation
Number of Units*	33 (all majors)
NQF Credit	480 (all majors)
Programme Aims*	The Bachelor of Engineering Technology programme will provide students with a comprehensive set of skills for employment as engineering technologists in the following three majors. The Bachelor of Engineering Technology (Mechanical) programme will provide students with: • theoretical and practical skills to solve engineering problems and design engineering systems in the broad area of mechanical engineering, Mechanics, Thermodynamics, Fluid Mechanics, and Control, • skills necessary for effective communication, analysis, teamwork, documentation, and evaluation of systems through the inclusion of courses in English language, mathematics, project management, ethics, and social responsibility. The Bachelor of Engineering Technology programme (Electrical) will provide students with: • theoretical and practical skills to solve engineering problems and

	design engineering systems in the broad area of Instrumentation and Control, Programmable Logic Controllers, Power Systems and Electrical Machines and Electrical Design of installation and illumination systems for the Building Services Sector. • skills necessary for effective communication, analysis, teamwork, documentation, and evaluation of systems through the inclusion of courses in English language, mathematics, project management, ethics, and social responsibility. The Bachelor of Engineering Technology (Electronics) programme will provide students with: • theoretical and practical skills to solve engineering problems and design engineering systems in the broad area of Instrumentation and Control, Programmable Logic Controllers, Telecommunications and Embedded Systems and Electronics Circuit Design. • skills necessary for effective communication, analysis, teamwork, documentation, and evaluation of systems through the inclusion of courses in English language, mathematics, project management, ethics, and social responsibility.
Programme Intended Learning Outcomes*	**<u>Bachelor of Engineering Technology (Mechanical):</u>** 1. Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialisation to deal with defined and applied engineering procedures, processes, systems or methodologies. 2. Identify, formulate, research literature, and solve broadly defined engineering problems reaching substantiated conclusions using analytical tools appropriate to their discipline or area of specialisation. 3. Demonstrate commitment to professional ethics, responsibilities, and norms of engineering technology practice. 4. Recognize the impact of engineering solutions in a societal context and demonstrate knowledge of the need for sustainable development. 5. Critically analyse the societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to engineering technology practice. 6. Design solutions for broadly defined engineering technology problems and contribute to the design of systems, components, or processes to meet specified needs with appropriate consideration

	for public health and safety, cultural, societal, and environmental cons. 7. Conduct investigations of broadly defined problems; locate, search, and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions. 8. Select and apply appropriate techniques, resources, and modern engineering tools, including prediction and modelling tools, to broadly defined engineering activities, with an understanding of their limitations. 9. Practice as a professional using 21st century skills. 10. Demonstrate knowledge of management and business practices, such as risk and change management, and understand their limitations. 11. Solve practical problems in specific mechanical engineering settings using sound analytical, industrial, laboratory, and time-management skills. 12. Operate engineering instruments and machines and interpret their results and readings. 13. Analyse mechanical engineering performance and diagnose faults. 14. Work with computers and demonstrate an understanding of their place in an engineering environment. 15. Contribute to the process of design, prototyping, and manufacture of products. **<u>Bachelor of Engineering Technology (Electrical):</u>** 1. Apply knowledge of mathematics, science, engineering fundamentals, and an engineering specialisation to deal with defined and applied engineering procedures, processes, systems, or methodologies. 2. Identify, formulate, research literature, and solve broadly defined engineering problems reaching substantiated conclusions using analytical tools appropriate to their discipline or area of specialisation. 3. Understand and commit to professional ethics, responsibilities, and norms of engineering technology practice. 4. Understand the impact of engineering solutions in a societal context and demonstrate knowledge of the need for sustainable development.

	5. Demonstrate understanding of the societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to engineering technology practice. 6. Design solutions for broadly defined engineering technology problems and contribute to the design of systems, components, or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations. 7. Conduct investigations of broadly defined problems; locate, search, and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions. 8. Select and apply appropriate techniques, resources, and modern engineering tools, including prediction and modelling tools, to broadly defined engineering activities, with an understanding of their limitations. 9. Practice as a professional using 21st century skills. 10. Demonstrate an awareness and understanding of management and business practices, such as risk and change management, and understand their limitations. 11. Provide solutions to electrical engineering problems factoring in sustainability, cost factors and engineering ethics principles. 12. Operate electrical testing and measurement instruments and present the results using industry standard documentation format. 13. Diagnose the performance of electrical systems in the presence of faults. **<u>Bachelor of Engineering Technology (Electronics):</u>** 1. Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialisation to deal with defined and applied engineering procedures, processes, systems, or methodologies. 2. Identify, formulate, research literature, and solve broadly defined engineering problems reaching substantiated conclusions using analytical tools appropriate to their discipline or area of specialisation. 3. Demonstrate commitment to professional ethics, responsibilities, and norms of engineering technology practice. 4. Recognize the impact of engineering solutions in a societal context and demonstrate knowledge of the need for sustainable development.

	5. Critically analyse the societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to engineering technology practice. 6. Design solutions for broadly defined engineering technology problems and contribute to the design of systems, components, or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations. 7. Conduct investigations of broadly defined problems; locate, search, and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions. 8. Select and apply appropriate techniques, resources, and modern engineering tools, including prediction and modelling tools, to broadly defined engineering activities, with an understanding of their limitations. 9. Practice as a professional using 21st century skills. 10. Demonstrate knowledge of management and business practices, such as risk and change management, and understand their limitations. 11. Solve practical problems in specific electronics engineering settings using sound industrial, laboratory, and time management skills. 12. Operate electronic test and measurement instruments and interpret their results and readings. 13. Analyse the performance of electronic equipment and diagnose faults.

* Mandatory fields

III. Judgement Summary

The Programme's Judgement: Confidence

Standard/ Indicator	Title	Judgement
Standard 1	**The Learning Programme**	**Satisfied**
Indicator 1.1	The Academic Planning Framework	Partially Addressed
Indicator 1.2	Graduate Attributes & Intended Learning Outcomes	Partially Addressed
Indicator 1.3	The Curriculum Content	Addressed
Indicator 1.4	Teaching and Learning	Addressed
Indicator 1.5	Assessment Arrangements	Addressed
Standard 2	**Efficiency of the Programme**	**Satisfied**
Indicator 2.1	Admitted Students	Addressed
Indicator 2.2	Academic Staff	Addressed
Indicator 2.3	Physical and Material Resources	Partially Addressed
Indicator 2.4	Management Information Systems	Addressed
Indicator 2.5	Student Support	Addressed
Standard 3	**Academic Standards of Students and Graduates**	**Satisfied**
Indicator 3.1	Efficiency of the Assessment	Partially Addressed
Indicator 3.2	Academic Integrity	Addressed
Indicator 3.3	Internal and External Moderation of Assessment	Addressed
Indicator 3.4	Work-based Learning	Partially Addressed

Indicator 3.5	Capstone Project or Thesis/Dissertation Component	Addressed
Indicator 3.6	Achievements of the Graduates	Addressed
Standard 4	**Effectiveness of Quality Management and Assurance**	**Satisfied**
Indicator 4.1	Quality Assurance Management	Addressed
Indicator 4.2	Programme Management and Leadership	Addressed
Indicator 4.3	Annual and Periodic Review of the Programme	Addressed
Indicator 4.4	Benchmarking and Surveys	Addressed
Indicator 4.5	Relevance to Labour market and Societal Needs	Partially Addressed

IV. Standards and Indicators

Standard 1

The Learning Programme

The programme demonstrates fitness for purpose in terms of mission, relevance, curriculum, pedagogy, intended learning outcomes and assessment.

Indicator 1.1: The Academic Planning Framework

There is a clear academic planning framework for the programme, reflected in clear aims which relate to the mission and strategic goals of the institution and the college.

Judgement: *Partially Addressed*

- The Bachelor of Engineering Technology (BEngTech) is offered by the School of Engineering of the Faculty of Engineering, Design and Information and Communications Technology (EDICT) at Bahrain Polytechnic (BP). The BEngTech programme has a Programme Approval Document (PAD) that comprehensively specifies all aspects of the programme and its link to BP's strategic goals. BP also has a detailed Programme Approval Policy in place which includes all the procedures related to the development, approval, and revision of programmes and courses. The Panel notes that the validation of programmes in line with the requirements of the National Qualifications Framework (NQF) plays an important role during the development of BP programmes. Furthermore, the Panel learned in interviews that feedback from industry has led to the development of new programmes as well as to the revision of existing programmes and that the BEngTech programme has been specifically developed to bridge the gap between the labour market needs and the offered programmes in higher education.

- The School of Engineering has a risk register, which covers different programme related risks. However, the Panel questions the effectiveness of its usage as some risks that have been identified several years ago are still unresolved. the Panel also notes that the last update of the risks and related actions was done in the academic year 2019-2020. Upon request of the Panel, additional new document was provided. However, the Panel still finds that there was a gap of few years in the risk-register when no risks were identified or recorded, and others were not resolved. The Panel recommends that BP should ensure that high-priority risks are promptly addressed and that the risk register and related action plans are regularly updated and monitored.

- BP has a Naming and Awarding Policy which ensures that its programmes meet the requirements of the NQF. As per the provided evidence, the BEngTech programme has been placed at NQF level 8 since 2018. The Panel notes that the title of the programme is concise and indicative of the qualification's type and content which is a BEngTech degree with three majors (mechanical, electrical, and electronics) that students can choose from. The title of the programme is also accurately documented on the programme description documents, the institution's website and the students' certificates.

- The aims of the BEngTech programme are stated in the PADs and are clear and appropriate. The Panel found evidence of benchmarking the programme aims with other similar programmes, however the Panel was not provided with sufficient evidence which reflects that stakeholders are consistently involved in the development and revision of the programme's aims. Therefore, the Panel recommends that BP should ensure that stakeholders are consistently involved in the development and revision of the programme's aims.

Indicator 1.2: Graduate Attributes & Intended Learning Outcomes

Graduate attributes are clearly stated in terms of intended learning outcomes for the programme and for each course and these are appropriate for the level of the degree and meet the NQF requirements.

Judgement: *Partially Addressed*

- The institutional-level generic graduate attributes are part of the Strategic Plan. The PADs indicate how the institutional-level generic graduate attributes are achieved by the BEngTech majors. The PADs also include the Programme Intended Learning Outcomes (PILOs) for the BEngTech majors, which are mapped to the programme aims.

- The PILOs of the BEngTech majors are benchmarked with the PILOs of other similar programmes. However, the Panel notes that the PILOs are numerous and often 'double-barrelled' (i.e., contain combinations of several outcomes into one outcome). Furthermore, some PILOs are too specific and can be set at a course level rather than a programme level. Therefore, the Panel recommends that the School of Engineering should revise and ensure that the PILOs of the different BEngTech programme majors are clearly stated, measurable, and appropriate for the programme level.

- Each course is described in a comprehensive Course Descriptor, which includes the Course Intended Learning Outcomes (CILOs). These CILOs are, in general, well-defined, appropriate for the course level and meet the NQF requirements. Mappings of CILOs to the PILOs are managed using the curriculum management system 'Masar' and displayed in the PADs. The Panel is satisfied that the CILOs are appropriately mapped to the PILOs.

Indicator 1.3: The Curriculum Content

The curriculum is organised to provide academic progression of learning complexity guided by the NQF levels and credits, and it illustrates a balance between knowledge and skills, as well as theory and practice, and meets the norms and standards of the particular academic discipline.

Judgement: ***Addressed***

- The BEngTech curriculum comprises 480 credits that are expected to be completed over four years. The Panel notes that the programme is organised to provide academic progression year-on-year and includes an appropriate list of course pre-requisites. The programme begins with a shared first year, introducing general engineering concepts to students who then carry on specialising in their respective disciplines (majors) from the second year onwards. The Panel also notes that students' workload is appropriate and that there is a good balance between contact hours and independent learning, as evident from the Course Descriptors.

- The BEngTech curriculum benefits from the annual and periodic reviews of the programme and the external stakeholders' involvement through the Curriculum Advisory Group (CAG), which contributes to the curriculum development and enhancement. Moreover, the programme accreditation by the Institution of Engineering and Technology which was received in 2021 demonstrates that the curriculum meets international standards. Furthermore, the Panel was provided with benchmarking and external examiner reports, which also confirm that the curriculum is regularly reviewed and meets international standards.

- The Panel notes that the BEngTech programme includes an appropriate balance of knowledge and skills which is ensured through the mapping of the CILOs of each course to the NQF sub-strands and employability skills. The Panel also notes the programme's focus on practical aspects including problem solving, communication, and course projects, which provide students with hands-on experience. Moreover, the BEngTech programme includes a Co-operative Learning Project (CLP) course and an Industry Placement course, which provide opportunities for students to get an early exposure to working in an industry.

- The Panel examined the provided sample of Course Descriptors and noted that the course contents cover all elements expected in term of depth and breadth. However, some of the provided Course Descriptors do not include any resources under the 'recommended reading list' section. Therefore, the Panel recommends that the School of Engineering should ensure that all Course Descriptors include prescribed textbooks and further reading resources.

Indicator 1.4: Teaching and Learning

The principles and methods used for teaching in the programme support the attainment of programme aims and intended learning outcomes.

Judgement: ***Addressed***

- A range of teaching and learning methods are used in the BEngTech programme in line with the institutional Teaching and Learning Principles and Teaching and Learning Policy. These methods include lectures, tutorials, group work, laboratory work, and independent study hours; all of which provide a conductive environment for student learning and support the attainment of learning outcomes and lifelong learning. E-learning is also well-established and used through the Moodle Learning Management System (LMS) across all programmes in BP. However, the Panel learned during the interviews that e-learning procedures were recently developed. The Panel received evidence for a proposed e-learning framework. Therefore, the Panel recommends that BP should expedite the approval and implementation of the proposed e-learning framework.

- The teaching and learning philosophy that is used in the programme reflects the institution's focus on Problem and Project Based Learning (PBL), which is part of the institution's Strategic Plan and its commitment to bridge the gap between academia and industry. This focus on PBL is evident in the PADs for all the BEngTech majors and the provided samples of Course Descriptors. The effectiveness of the teaching methods has been confirmed during the site visit interviews with different stakeholders. The Panel also learned during the interviews that BP learning environment support all types of learning: formal, informal, and non-formal learning. BP students are encouraged to participate in external competitions and several courses allow them to get industrial exposure prior graduation and include laboratory work. In addition, the significant use of individual and group assignments as well as the Library Learning Centre (LLC), which includes dedicated discussion rooms and learning resources, support students independent learning and strengthen their perceptions and research capabilities as well as their abilities to create and innovate.

Indicator 1.5: Assessment Arrangements

Suitable assessment arrangements, which include policies and procedures for assessing students' achievements, are in place and are known to all relevant stakeholders.

Judgement: ***Addressed***

- There is a comprehensive institution-wide Assessment and Moderation Policy, which is available to students and staff *via* various channels including Moodle, Staff e-Handbook

and BP's SharePoint and website. The Policy covers all the aspects related to the design, verification, conduct, marking and moderation of assessments. The assessment methods are listed in the Course Descriptors which are also accessible to students and staff *via* the Moodle platform. These methods include examinations, reports, assignments, quizzes which are conducted throughout the semester to keep students engaged.

- The Panel confirmed during interviews that a variety of assessment methods including formative assessment (e.g., in-class exercises, weekly reflections on projects, etc.) and summative assessments are utilized. The Panel also noted that marking criteria are included in the samples of assignment briefs for both group and individual assignments that were made available to the Panel. During the interviews with academic staff, they confirmed that assessments are returned to students within two weeks of submission with comments that help them in improving their performance in future assessments.

- The grading of student's work takes place in accordance with the guidelines set out in the Assessment and Moderation Policy. The internal and external moderation of the assessment also take place according to the Assessment and Moderation Policy. The Panel viewed internal and external moderation forms, and samples of the external examiners' reports, and acknowledges that BP has a robust moderation process in place. The Panel also notes that there is an established Academic Integrity and Honesty Policy in place which details the information regarding academic misconduct including plagiarism. In line with the Student Academic Appeal Policy, students can submit an academic appeal if they have concerns about the grade that they have received.

Standard 2

Efficiency of the Programme

The programme is efficient in terms of the admitted students, the use of available resources - staffing, infrastructure, and student support.

Indicator 2.1: Admitted Students

There are clear admission requirements, which are appropriate for the level and type of the programme, ensuring equal opportunities for both genders, and the profile of admitted students matches the programme aims and available resources.

Judgement: ***Addressed***

- In addition to the students' Admission Policy, BP has a clear platform that includes all related procedures and guidelines for the students' enrolments from admission to graduation. The Admission Policy is aligned with the Higher Education Council requirements and regulations. The Policy and the related documents are shared with different stakeholders *via* the website, BP Cloud, Banner System, BP SharePoint and/or emails. The admission criteria are clear and offer equal opportunities to all applicants, however, the School of Engineering does not accept students with special needs. The Panel suggests making the necessary arrangements to allow students with special needs to have the opportunity to join the programme. The Panel also notes that students are only admitted in the beginning of the academic year, which is a loss of waiting time for them. The Panel suggests making the necessary arrangements to enrol students in the second semester.

- Direct admission in the BEngTech programme is subjected to passing Entry Qualification Tests in English and Mathematics that is organised by external entities to ensure smooth progression through the programme. A local English test was developed by the foundation programme tutors following an approved Programme Selection Criteria. If the entry tests are not passed, then students may complete a foundation programme. Based on the provided information in the Self-Evaluation Report (SER), most students go through a foundation programme before they start their specialisation courses.

- BP monitors the progression of all students throughout their studies and provides support at different levels starting from orientation upon starting the programme and continuing to graduation. The progression is recorded accurately in a safe and secured system in line with the Results and Reporting Policy that can identify any deficiencies of progression

that need attention and action for support. BP also has a Credit Recognition Policy which covers both recognition of prior learning and credit transfer.

- The Panel notes that the Student Admission Policy is regularly revised in light of national and international benchmarks. The Panel learned during the interviews that stakeholders' feedback is used as input for setting the requirements for the entry to this programme. The Panel also learned, during interviews, that there are some arrangements for future approval for credit transfer in coordination with the University of Bahrain for some common courses within the programme.

Indicator 2.2: Academic Staff

There are clear procedures for the recruitment, induction, appraisal, promotion, and professional development of academic staff, which ensure that staff members are fit-for-purpose and that help in staff retention.

Judgement: ***Addressed***

- BP has a Human Resources Management Policy, which is in line with the policies and procedures of the Civil Service Bureau for recruitment, promotion, and performance management. There is also a Promotion Policy that was recently approved for academic staff members. The Panel notes that recruitment is based on transparent criteria and procedures, all new staff members are provided with induction and preparation, and the appraisal and promotion academic staff are done by dedicated committees.

- The Teaching and Learning Unit of the Academic Development Directorate provides the academic staff with training programmes that are planned and organized by the Training and Development Committee. The Applied Research and Entrepreneur Centre also provides training and support for academic staff to enhance their research output which is part of the promotion requirements. As a result of the support provided to research in the School of Engineering, several research papers were recently published in journals and conferences. The Panel acknowledges the commitment of BP to support its academic staff's continuing professional development needs. The Panel also appreciates that the Certificate in Tertiary Teaching and Learning (CTTL) programme is compulsory for all academics, and the successful completion of which allows academic staff to become Associate Fellow of the Higher Education Academy, which is based in the United Kingdom.

- The staff workload allocation is made with reference to the Workload Procedure and Guidelines and the timetables for each staff member are set based on the Timetabling Policy. Research work is one of the main parameters that are considered while workload

is allocated to staff members. Special needs for women are also taken into consideration in the workload allocation.

- There are sufficient staff members with an appropriate range of academic qualifications, specialisations, and professional experience to teach on the programme. The size of the class is capped at 20 – 25 students per course. The Panel notes the increase in the number of admitted students in the last two academic year, which will require responsive and immediate recruitment to maintain the current class size. The Panel also notes that BP has no formal retention policy or procedure at present, which was confirmed during the interviews. However, the fair treatment and workload allocation in addition to the continuous support which academic staff members receive, have a positive effect on the retention rate. Nevertheless, the Panel recommends that BP should develop a clear process for monitoring staff turnover and ensuring the retention of highly qualified academic staff members.

Indicator 2.3: Physical and Material Resources

Physical and material resources are adequate in number, space, style and equipment; these include classrooms, teaching halls, laboratories and other study spaces; Information Technology facilities, library and learning resources.

Judgement: ***Partially Addressed***

- BP campus contains two seminar rooms with a capacity of 100 attendees. A good number of teaching rooms with a capacity between 24 to 44 students are available for teaching and learning purposes. The teaching rooms are well maintained and equipped with multimedia, smart board, white board, tutor's computer, internet connectivity, and an audio system. There are two workshop halls and 16 specialised laboratories in good operational condition serving the three majors (mechanical, electrical, and electronics) of the BEngTech programme.

- The Panel notes that there are adequate Information and Communications Technology (ICT) facilities for the BEngTech students. All necessary hardware was secured for all classes and laboratories. Required ICT tools and services are revised on annual basis as part of the annual programme review process, and as per the ICT Services Policy, the computers are formatted, and new software is installed at the beginning of every academic year. As per the SER and supporting evidence, the Panel noticed during the on-site campus tour that the ICT Services Directorate pays great attention in securing the current and the future ICT needs. The Wi-Fi covers all the campus, and all students and staff members have their email addresses and passwords for accessing BP information systems inside and outside the campus.

- As observed during the on-site campus tour, BP has an equipped LLC with 24 computers for students' usage. Moreover, it is equipped with various books, online resources, such as journals with subscription to Science Direct, Emarald, E-Book central, etc., to serve the BEngTech programme. The Academic Skill Centre with dedicated staff is also available for students who need extra support in Mathematics and English. The procedure of ordering library resources outlines the steps required to order books under the Student Services Policy. Faculty can make requests for printed books or e-books using a book order form that is available on Student Services SharePoint. The library usage is tracked, and the feedback is utilised for enhancing the services for learning and research.

- There are clear arrangements and procedures for the safety and security of all students, staff members and visitors of BP. There is a hotline that can be called 24/7 to report any potential problem or hazard that may appear on campus.

- During the on-site campus tour, the Panel noticed that the server room has insufficient air-conditioning to meet the required cooling load, which leads to high temperature that may lead to server damage and/or server life shortening. The Panel recommends that BP should ensure that the air-conditioning in the server room meets the required cooling load to avoid server damage and/or server life shortening. During the on-site campus tour, it was also noticed that not all buildings serving the BEngTech programme are accessible to students and other stakeholders with disabilities, as there was no clear signage for accessibility features, in addition, automatic doors, special toilets and lifts were not installed in all buildings. Therefore, the Panel recommends that BP should ensure the availability of adequate facilities and services to cater for the needs of students and other stakeholders with disabilities.

Indicator 2.4: Management Information Systems

There are functioning management information and tracking systems that support the decision-making processes and evaluate the utilisation of laboratories, e-learning, and e-resources, along with policies and procedures that ensure security of learners' records and accuracy of results.

Judgement: ***Addressed***

- BP uses various information systems to manage their educational process, including Moodle as its main LMS, and Banner as a Student Information System, in addition to supporting applications such as Sierra, SharePoint, Masar (AKARI), and Argos. Banner holds all student data at all levels from admission to graduation, while Moodle is the collaborative platform between students and instructors through which teaching and learning happens. The effectiveness of such systems is demonstrated by generated reports, which are utilised for decision making. However, the Panel noticed during the site visit, that those systems appear to work individually in a way that adds complexity to obtain

some information that is needed from more than one system. Therefore, the Panel suggests developing a mechanism for systems integration and generating detailed course/programme reports for better decision making.

- BP has measures for the security of students' records and information. The security, confidentiality, and integrity of the records are always maintained. Moreover, all data are backed up in a secure system to enable system recovery for operation at any time and data can be restored if necessary. All passwords should meet an acceptable level of security.

- The awarded certificates and the transcripts are issued accurately following the Results and Reporting Policy, which assures documentation consistency. All grades and certificates are generated and receive approvals at different levels during a timeframe that is known to all stakeholders.

Indicator 2.5: Student Support

There is appropriate student support available in terms of guidance, and care for students including students with special needs, newly admitted and transferred students, and students at risk of academic failure.

Judgement: ***Addressed***

- BP provides all students with a wide range of services and support in terms of academic and non-academic guidance and care. All newly admitted students and transferred students are provided with an induction through an Orientation programme that is required to be attended. The induction covers all services including the various library services, e-learning and e-resources, health care, social services, fees exemption, among others. Students also receive clear information regarding their rights and responsibilities during their study at BP. Technical support is provided when needed by technicians.

- BP has a Students Council, which plays an important role in resolving different students matters in collaboration with other committees and units at the institution level. It also organises several academic and social events that can benefit all students. Furthermore, students receive a comprehensive career guidance through the Career and Employment Centre, which offers a drop-in service for students looking for career counselling. During the on-site campus tour, the Panel learned that the Centre keeps the bond with the graduates and maintains communication with them after graduation.

- On their entry to BP, all students are assigned an academic advisor, who meets with them at least twice per semester to clarify all academic issues related to the programme, and support students in enhancing their learning experience. The Panel also learned during the interviews and on-site campus tour that BP adopts the practice of integrating academic advising with mentoring. Students have to meet their mentors to discuss any personal and

academic issues that can affect their academic life and progression. Moreover, BP has arrangements to continuously monitor the performance and progression of students, documented in the Enrolment and Academic Progression Policy. The Panel has seen evidence on tracking the records of students at risk of academic failure through the SharePoint. Tutors of at-risk students are also advised to keep an eye on them and monitor their performance.

- Although the BEngTech programme does not accept students with special needs, BP has arrangements that is decided case-by-case to cater for the encountered needs. However, during the site visit, the Panel learned that only one specialist was assigned to help students with special needs. Therefore, the Panel suggests assigning more resources to support special needs staffing.

- All students' services are regularly assessed for improvement, including academic advising, safety and campus security, career and counselling, ICT, library, mentoring, student registry, among others, through a survey. This survey gives flexibility for the students to highlight the most important need for improvement from the student point of view.

Standard 3

Academic Standards of Students and Graduates

The students and graduates of the programme meet academic standards that are compatible with equivalent programmes in Bahrain, regionally and internationally.

Indicator 3.1: Efficiency of the Assessment

The assessment is effective and aligned with learning outcomes, to ensure attainment of the graduate attributes and academic standards of the programme.

Judgement: ***Partially Addressed***

- The assessments include a variety of methods which vary in terms of complexity according to the respective course level. The Panel checked the samples of submitted assessment as part of the course portfolios and noted that the assessments are in line with current good practices and meet the academic standards of the programme. The submitted evidence also shows that course assessment tools are aligned with the CILOs, which are mapped to the PILOs. However, based on the submitted evidence and as confirmed during the interviews, the Panel found that there is no mechanism in place for direct or indirect measurement of PILOs. Therefore, the Panel recommends that BP should develop and implement a mechanism to measure the extent to which CILOs and PILOs are achieved.
- At the end of each semester, faculty members prepare Course Summary Reports that include a full review of the courses and areas for improvement. The SER indicates that these reports are discussed, and action plans are suggested. During the interviews with the Quality Assurance (QA) team, programme coordinators, and faculty members, the Panel learned that assessment improvements are triggered by feedback from stakeholders. The Panel acknowledges that BP has an appropriate mechanism in place for monitoring the implementation and improvement of the assessment process.

Indicator 3.2: Academic Integrity

Academic integrity is ensured through the consistent implementation of relevant policies and procedures that deter plagiarism and other forms of academic misconduct (e.g. cheating, forging of results, and commissioning others to do the work).

Judgement: ***Addressed***

- The Academic Integrity and Honesty Policy provides a structured framework for handling different types of academic misconduct. An example of academic misconduct form is presented about (cheating) and evidence shows that it was treated systematically following the published procedures. Investigations on the cases are made and suitable actions are taken based on the cases and approved by the Dean, such as formal warning letters, failing the course, or getting a zero grade on the assessment.

- The Panel learned that during induction, students are made aware of general academic integrity rules, regulations, and types of violations, which are documented in the Academic Integrity and Honesty Policy, Students Handbook and the Students Rights and Responsibilities Policy. The staff members and the students are also aware of the examination rules and procedures well before conducting the examinations.

- The Panel was informed that online examinations are invigilated using Big Blu Button for monitoring students. The Panel also noticed that BP relies on Turnitin in the detection of plagiarism. However, plagiarism may not be detected in the text generated by Artificial Intelligence (AI). Moreover, the allowed similarity percentage is not stated in the policy nor in any document. Therefore, the Panel recommends that BP should develop clear guidelines about the acceptable text similarity to ensure a consistent implementation and common understanding across all BP stakeholders. The Panel also suggests developing formal arrangements to cater for the challenges that the use of AI may pose.

Indicator 3.3: Internal and External Moderation of Assessment

There are mechanisms in place to measure the effectiveness of the programme's internal and external moderation systems for setting assessment instruments and grading students' achievements.

Judgement: ***Addressed***

- As per the Assessment Policy, assessments must go through verification and moderation processes to ensure adequacy and fairness. Verification is conducted to ensure the appropriateness and validity of the assessment before it is conducted, while moderation is done after the assessment to ensure fairness of grading according to the relevant rubric. Internal moderators are selected and approved at the beginning of the semester based on their specialisation by the Faculty Quality Manager (FQM) and approved by the Faculty Board. To ensure consistent implementation of the processes, the School of Engineering uses the Verification and Moderation Tracking Sheet. The Panel was provided with samples of the BEngTech assessment internal verification and moderation, as part of the course portfolio, which show consistent implementation.

- The external moderation process is conducted and monitored systematically through the SharePoint. The FQM is responsible for communication with the external moderators and

ensuring the consistent implementation of the process. The derived actions are discussed and taken care of before issuing the final assessment paper. Moreover, in some cases, some of the BEngTech courses were updated based on the external moderation recommendations which are included as part of the annual programme review improvement plan, which are reported to the programme committee and Faculty board. To assure the effectiveness of the internal and external moderation processes, Assessment Moderation Audits are conducted.

Indicator 3.4: Work-based Learning

Where assessed work-based learning takes place, there is a policy and procedures to manage the process and its assessment, to assure that the learning experience is appropriate in terms of content and level for meeting the intended learning outcomes.

Judgement: *Partially Addressed*

- BP has an Offsite and Workplace Learning Activities Policy which is aimed at assisting staff in arranging and managing off-site course components and industry-based projects. In addition to the institution's policy, there are school owned documents to support the policy. School's work placement logbook also contains information for both the employer and for the student. The whole process of identifying organisations for student placements and completing paperwork is done jointly by the Head of the School, Programme Manager, and the Industrial Liaison Unit. A training supervisor and an academic supervisor are allocated to each student going on a placement.

- The Panel notes that BEngTech students are required to complete non-credit bearing 80 days of work placement in relevant Engineering companies, as a requirement for the 'Industry Placement' (EN0001) course, which is a pass or fail component. The Panel also notes that work placement is not shown on student's transcripts. Therefore, the Panel recommends that the School of Engineering should ensure that work placement is a credit bearing component of the BEngTech programme to comply with NQF requirements, and to be added to the students' transcripts.

- The CILOs for the 'Industry Placement' (EN0001) course are included in the relevant Course Descriptor. However, the Panel notes that there is no mapping of these CILOs to the PILOs in the PAD. Moreover, the Panel notes that the assessment is *via* the workplace supervisor's evaluation of student's work-based skills that do not confirm the attainment of PILOs. The students complete a weekly timesheet and daily activity log which are signed off by the workplace supervisor. The workplace supervisor grades the student based on their performance during the student's time in the organisation. The Panel is of the view that this assessment method does not reflect on the attainment of the CILOs and PILOs, and that there could be inconsistencies in such evaluations as these are managed

externally. Therefore, the Panel recommends that the School of Engineering should map the CILOs of the 'Industry Placement' course to the PILOs and ensure that the assessment of the Industry Placement course is aligned with the CILOs.

Indicator 3.5: Capstone Project or Thesis/Dissertation Component

Where there is a capstone project or thesis/dissertation component, there are clear policies and procedures for supervision and evaluation which state the responsibilities and duties of both the supervisor and students, and there is a mechanism to monitor the related implementations and improvements.

Judgement: ***Addressed***

- In the second semester of the fourth year, students are required to complete 30 credits of either the CLP (EN8914) course or the 'Engineering Research Project' (EN8911) course for successful completion of the programme. The 'Project Proposal' (EN8913) 5-credit course is a pre-requisite for both courses. These courses are designed to provide students with the knowledge necessary to successfully execute the engineering design process beginning with the conceptual design, preparing the preliminary design, and ending with the final design. The Panel examined the mapping of the CILOs of these courses to the PILOs, as well as samples of the CLP projects and finds that the courses effectively contribute to the achievement of the learning outcomes.

- While CLP is completed off-site by students with an industry partner, the Engineering research project is inhouse with no direct industry experience. The Panel notes that the assessment criteria for the two courses are different. While 35% of CLP is assessed based on (Project Presentation and Evaluation), only 20% of the research project is assessed based on that. The Panel suggests ensuring that students are exposed to similar opportunities for industrial experience and research during the capstone project.

- Guidelines for both the CLP and the research project courses are available, which provide clear instructions on the conduct of the projects and their assessment. Moreover, the Research Engineering Guide, which is added for students in the LLC, provides some evidence of the resources available to the students to carry out their research.

- Student progress is monitored *via* various means which includes weekly progress meetings with the supervisor and multiple assessment submissions during the capstone project. This demonstrates that a clear monitoring and review of progress is in place. There are different types of appropriate assessments which are given to the students. This ranges from submission of research paper, progress reports, workshop reflection, project presentation and evaluation, thesis, and poster, which would help students build written

and oral presentation skills. Course review surveys are carried out for both courses and the Panel was able to see samples of these surveys.

Indicator 3.6: Achievements of the Graduates

The achievements of the graduates are consonant with those achieved on equivalent programmes as expressed in their assessed work, rates of progression and first destinations.

Judgement: ***Addressed***

- The Panel examined the evidence provided by the School of Engineering in the form of the PADs, Course Descriptors and Portfolios including the students' graded work and was able to confirm the appropriateness of students' achievements as well as compatibility with other similar undergraduate programmes offered. This also indicates that students possess the necessary knowledge and skills for post-university work upon graduation. Furthermore, the employment rate of BEngTech graduates after six months and after one year, which were more than 88%, indicate that they have the required attributes for work. The Panel appreciates that the School of Engineering measures the employment rate of its graduates after six months and after one year from graduation to ensure that the programme's aims are achieved.

- The provided statistics show the number of students that were admitted, enrolled, dismissed, transferred, and graduated in the last five academic years. The Panel notes that number of admitted students has significantly increased in the academic year 2021-2022. The retention rate of 2021-2022 has dropped as compared to that of 2020-2021 (from 94.8% to 80.9%). The Panel suggests investigating the reasons of the drop of the students' retention rate.

- The Panel was presented with the Graduate Destination Report, Annual Programme Review Report, and Periodic Review Report of the BEngTech programme. The reports provide analysis on student progression and graduate destinations data. Such analysis and discussion of the data ensure that the programme objectives are met.
- The Alumni Survey indicates that more than 80% of the BP alumni have the problem-solving skill and generating innovative solutions skill. The results of the Employer Survey provided in the Annual Review Report of 2020-2021 indicate that employers are satisfied with the BEngTech graduates and their ability to create and innovate. Moreover, as per the SER and the Employers Survey, 90% of the employers confirm that BP graduates have the required employability skills. This was also reflected during the interviews with the employers, as they confirmed that the BEngTech graduates are market ready. The Panel also met with the programme alumni, who indicated their satisfaction with the BEngTech programme. Overall, the Panel appreciates the positive feedback from external stakeholders and the high employment rates of the BEngTech graduates.

Standard 4

Effectiveness of Quality Management and Assurance

The arrangements in place for managing the programme, including quality assurance and continuous improvement, contribute to giving confidence in the programme.

Indicator 4.1: Quality Assurance Management

There is a clear quality assurance management system, in relation to the programme that ensures the institution's policies, procedures and regulations are applied effectively and consistently.

Judgement: ***Addressed***

- BP has policies and procedures in place related to teaching and learning, assessment, admission, support, and managing, maintaining, and securing records. There is also a Policies and Procedures Policy, which defines the institution's Quality Management System (QMS) and constitutes a framework for developing, implementing, and reviewing the institution's policies and procedures. The policies are revised every four years and published on the Institution's SharePoint within the Quality Tab, while student-related policies are also published on both Moodle and BP's website.

- QA processes are implemented and monitored across the EDICT Faculty and its schools by the Academic Standards, Strategy, and Quality Assurance Committee (ASSQAC), Academic Board, Faculty Board, and Programme Committee. Terms of reference (ToR), membership, and frequency of committee meetings are defined in BP documentations. The BP Quality Office conducts capacity building workshops to ensure that academic and support staff have a common understanding of QA and their individual roles in ensuring the effectiveness of provision. These training workshops are conducted throughout the academic year and verified during the interviews with the QA team, and faculty members.

- The SER states that the revision of policies and procedures as well as the programme reviews are opportunities for gap identification and improvement. Although these processes are appropriate, the Panel did not find a documented and systematic mechanism for monitoring, evaluating, and improving the QMS. Thus, the Panel recommends that BP should develop and implement a clear process for evaluating and improving the QMS.

Indicator 4.2: Programme Management and Leadership

The programme is managed in a way that demonstrates effective and responsible leadership and there are clear lines of accountability.

Judgement: ***Addressed***

- The organisation chart of the EDICT Faculty is appropriate for the management of the BEngTech programme. The Dean is the head of Faculty which is made up of three schools, offering five bachelor's and two master's degrees. Each school has a Programme Manager who reports to the Head of School, while Course Coordinators and Tutors report to the Programme Managers. The Panel is of the view that the organisation chart reflects a well-defined chain of command, which facilitates coordination and oversight of programme activities. The Panel is also of the view that there are clearly defined reporting lines for the management of QA at the different levels, which ensures effective communication and enhances the decision-making processes.

- The academic responsibility and the custodianship of the academic standards of the programme rest on different levels within the institution. The ToR of BP boards, councils, and committees clearly define their roles and responsibilities. The management posts (e.g., Dean, Head of School, Programme Manager, FQM, etc.) are also clearly defined and demonstrate appropriate division of responsibilities. From the provided evidence and interviews with different stakeholders, the Panel acknowledges that there is appropriate leadership and coordination in programme management.

Indicator 4.3: Annual and Periodic Review of the Programme

There are arrangements for annual internal evaluation and periodic reviews of the programme that incorporate both internal and external feedback and mechanisms are in place to implement recommendations for improvement.

Judgement: ***Addressed***

- The School of Engineering conducts an annual review of its BEngTech programme, following the Annual Programme Procedure and relevant templates and guidelines of BP. The annual review report covers the teaching and learning methodologies, graduates' employment and destinations, satisfaction surveys of graduates and employers, CAG's feedback, and areas for improvement. There is analysis and discussion related to each element of the report and recommendations to be implemented. The Panel found evidence showcasing the implementation and monitoring of these recommendations at the course and programme levels.

- BP specifies the requirement for periodic programme reviews in the Procedure Periodic Programme Review, which is part of the Review, Evaluation, and Improvement Policy. Periodic reviews are conducted every four years and are intended to improve the programme in terms of the quality and relevance to the market needs. The Panel was provided with the BEngTech periodic review report conducted in 2021-2022, covering the results of the annual reviews and course surveys for the previous four years, and including feedback from internal and external stakeholders. The result of this periodic review triggered a set of actions implemented and monitored through the quality improvement plan and tracked by the Faculty Board, Academic Council and ASSQAC.

Indicator 4.4: Benchmarking and Surveys

Benchmarking studies and the structured comments collected from stakeholders' surveys are analysed and the outcomes are used to inform decisions on programmes and are made available to the stakeholders.

Judgement: ***Addressed***

- In line with BP Benchmarking Policy, the BEngTech programme was benchmarked with regional and international similar programmes in 2021. The selection of institutions to benchmark with are based on the Benchmarking Partner Selection Checklist in the Benchmarking Policy. The comparison consisted of several benchmarking indicators, which included programme aims, teaching and learning approaches, assessment, career opportunities, entry requirements, English language requirements, programme structure, and accreditation bodies. As a result of these benchmarks, actions were identified, and recommendations were provided. Recommendations are then discussed and used for programme improvement, which the Panel learned from the provided evidence and interviews with the QA team, Programme Coordinator, and faculty members.

- BP's Institutional Quality Survey Framework defines a set of surveys to collect comments from employers, students, alumni, staff, and other stakeholders. Furthermore, feedback and recommendations are collected from CAG in annual meetings. Results of these surveys are analysed in the forms of Analysis Reports and improvement actions are identified accordingly. The Panel found evidence of actions resulting from the analysis of surveys added to the quality improvement plan list, which are being implemented as part of the annual and periodic reviews. During the meeting with employers and external examiners, the Panel learned that the implemented improvements are usually communicated to them in the form of reports or during meetings, and that they are satisfied with improvements made at the course level and programme level as per their feedback.

Indicator 4.5: Relevance to Labour market and Societal Needs

The programme has a functioning advisory board and there is continuous scoping of the labour market and the national and societal needs, where appropriate for the programme type, to ensure the relevancy and currency of the programme.

Judgement: ***Partially Addressed***

- To ensure continuous scoping of the labour market needs and the currency of the programme, the BEngTech has an active CAG that meets once a year and includes discipline experts, employers, and alumni. The Panel was presented with evidence indicating that CAG recommendations triggered actions, which are systematically implemented and monitored to improve the courses and programme. However, the Panel could not find a clear ToR for the CAG, and hence, the Panel recommends that the School of Engineering should define and document clear ToR for the CAG to ensure proper understanding of the roles and responsibilities.

- The Panel notes the school's continuous collaboration with industry partners and its ongoing efforts to meet evolving market demands to ensure that graduates are equipped with the required knowledge and skills, which are reflected in the high employment rates, and the positive employer feedback. Moreover, annual and periodic reviews, surveys, and CAG meetings collectively ensure ongoing relevance and currency of the programme and courses. However, the Panel did not find evidence of a market study, as the submitted evidence relates only to the (Electrical) major and was done in 2018. Therefore, the Panel recommends that the School of Engineering should conduct a market study to further ensure the relevance and currency of the BEngTech programme and its majors. Moreover, the Panel could not find evidence of reviewing the applied mechanisms for market scoping to ensure the relevance of the programme to the market needs. Therefore, the Panel recommends that BP should ensure that the applied mechanisms for market scoping are monitored and reviewed.

V. Conclusion

Taking into account the institution's own self-evaluation report, the evidence gathered from the interviews and documentation made available during the virtual site visit, the Panel draws the following conclusion in accordance with the DHR/BQA *Academic Programme Reviews (Cycle 2) Handbook, 2020*:

There is Confidence in the Bachelor of Engineering Technology offered by the School of Engineering of Bahrain Polytechnic.

In coming to its conclusion regarding the four Standards, the Panel notes, *with appreciation*, the following:

1. The Certificate in Tertiary Teaching and Learning programme is compulsory for all academics, and the successful completion of which allows academic staff to become Associate Fellow of the Higher Education Academy.
2. The School of Engineering measures the employment rate of its graduates after six months and after one year from graduation to ensure that the programme's aims are achieved.
3. The positive feedback from external stakeholders and the high employment rates of the Bachelor of Engineering Technology programme graduates.

In terms of improvement, the Panel recommends that Bahrain Polytechnic and the School of Engineering should:

1. Ensure that high-priority risks are promptly addressed and that the risk register and related action plans are regularly updated and monitored.
2. Ensure that stakeholders are consistently involved in the development and revision of the programme's aims.
3. Revise and ensure that the Programme Intended Learning Outcomes of the different BEngTech programme majors are clearly stated, measurable, and appropriate for the programme level.
4. Ensure that all Course Descriptors include prescribed textbooks and further reading resources.
5. Expedite the approval and implementation of the proposed e-learning framework.
6. Develop a clear process for monitoring staff turnover and ensuring the retention of highly qualified academic staff members.
7. Ensure that the air-conditioning in the server room meets the required cooling load to avoid server damage and/or server life shortening.

8. Ensure the availability of adequate facilities and services to cater for the needs of students and other stakeholders with disabilities.
9. Develop and implement a mechanism to measure the extent to which Course Intended Learning Outcomes and Programme Intended Learning Outcomes are achieved.
10. Develop clear guidelines about the acceptable text similarity to ensure a consistent implementation and common understanding across all Institution's stakeholders.
11. Ensure that work placement is a credit bearing component of the BEngTech programme to comply with National Qualifications Framework requirements, and to be added to the students' transcripts.
12. Map the Course Intended Learning Outcomes of the 'Industry Placement' course to the Programme Intended Learning Outcomes and ensure that the assessment of the Industry Placement course is aligned with the Course Intended Learning Outcomes.
13. Develop and implement a clear process for evaluating and improving the Quality Management System.
14. Define and document clear Terms of Reference for the Curriculum Advisory Group to ensure proper understanding of the roles and responsibilities.
15. Conduct a market study to further ensure the relevance and currency of the BEngTech programme and its majors.
16. Ensure that the applied mechanisms for market scoping are monitored and reviewed.