香港學術及職業資歷評審局
Hong Kong Council for Accreditation of
Academic & Vocational Qualifications

SUMMARY ACCREDITATION REPORT

SCHOOL FOR HIGHER AND PROFESSIONAL EDUCATION, VOCATIONAL TRAINING COUNCIL

AND

ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY

LEARNING PROGRAMME RE-ACCREDITATION OF

BACHELOR OF ENGINEERING (ELECTRICAL ENGINEERING) (HONOURS)

BACHELOR OF ENGINEERING (CIVIL AND INFRASTRUCTURE) (HONOURS)

BACHELOR OF ENGINEERING (MECHANICAL ENGINEERING) (HONOURS)

BACHELOR OF APPLIED SCIENCE (CONSTRUCTION MANAGEMENT) (HONOURS)

May 2019

This accreditation report is issued by the Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ) in its capacity as the Accreditation Authority as provided for under the Accreditation of Academic and Vocational Qualifications Ordinance (Cap. 592) (AAVQO). This report outlines the HKCAAVQ's determination, the validity period of the determination as well as any conditions or restrictions on the determination.

1. Introduction

1.1 The School for Higher and Professional Education (SHAPE) was established in 2003 as a member institution of the Vocational Training Council (VTC).

1.2 The Royal Melbourne Institute of Technology (RMIT) was granted University status in 1992. It has a student population of over 84,000, with over 10,000 students studying in transnational programmes with partner institutions, including those at SHAPE of VTC.

1.3 RMIT has collaborated with SHAPE since 2003. In 2014, the SHAPE and RMIT collaborative partnership (the Operator) attained from HKCAAVQ an Initial Evaluation (IE) status at Hong Kong Qualifications Framework (HKQF) Level 5.

1.4 HKCAAVQ was commissioned by SHAPE and RMIT, jointly as the Operator, to conduct learning programme re-accreditation with the following Terms of Reference:

(a) To conduct an accreditation test as provided for in the AAVQO to determine whether the following programmes of the Operator meet the stated objectives and QF standard and can continue to be offered as accredited programmes from the date as specified in the accreditation report, where appropriate;

i. Bachelor of Engineering (Electrical Engineering) (Honours)
NCR Registration / Reference No: 211110
ii. Bachelor of Engineering (Civil and Infrastructure) (Honours)
NCR Registration / Reference No: 211755
iii. Bachelor of Engineering (Mechanical Engineering) (Honours)
NCR Registration / Reference No: 212248
iv. Bachelor of Applied Science (Construction Management) (Honours)
NCR Registration / Reference No: 212256

(b) To issue to the Operator an accreditation report setting out the results of the determination in relation to (a) by HKCAAVQ.

1.5 The accreditation exercise was conducted according to the relevant accreditation guidelines referred to in the Service Agreement and the Terms of Reference stated therein. A site visit took place on 1-3 November 2017.

2. HKCAAVQ's Accreditation Determination

Having due consideration of the accreditation panel's observations and comments as presented in this Report, HKCAAVQ makes the following accreditation determination:

2.1 Learning Programme Re-accreditation

☑ Approval

Name of Local Operator	School for Higher and Professional Education, Vocational Training Council 職業訓練局 才晉高等教育學院			
Name of Non-local Operator	Royal Melbourne Institute of Technology			
Name of Award Granting Body	Royal Melbourne Institute of Technology			
Title of Learning Programme	Bachelor of Engineering (Electrical Engineering) (Honours)	Bachelor of Engineering (Civil and Infrastructure) (Honours)	Bachelor of Engineering (Mechanical Engineering) (Honours)	Bachelor of Applied Science (Construction Management) (Honours)
Title of Qualification (Exit Award)	Bachelor of Engineering (Electrical Engineering) (Honours)	Bachelor of Engineering (Civil and Infrastructure) (Honours)	Bachelor of Engineering (Mechanical Engineering) (Honours)	Bachelor of Applied Science (Construction Management) (Honours)

Primary Area of Study and Training	Engineering and Technology	Engineering and Technology	Engineering and Technology	Architecture and Town Planning
Sub-area (Primary Area of Study and Training)	Electrical, Electronic and Mechanical Engineering and Services	Civil Engineering	Electrical, Electronic and Mechanical Engineering and Services	Construction Management
Other Area of Study and Training	Not applicable	Not applicable	Not applicable	Not applicable
Sub-area (Other Area of Study and Training)	Not applicable	Not applicable	Not applicable	Not applicable
HKQF Level	Level 5	Level 5	Level 5	Level 5
HKQF Credits	192	192	192	192
Mode(s) of Delivery and Programme Length	Full-time, 2 years Part-time, 3 years	Full-time, 2 years Part-time, 3 years	Full-time, 2 years Part-time, 3 years	Part-time, 3 years
Start Date of Validity Period	11 September 2018	11 September 2018	11 September 2018	11 September 2018
End Date of Validity Period	10 September 2023	10 September 2023	10 September 2023	10 September 2023
Number of Enrolment(s)	One enrolment per year			
Maximum Number of New Students	Full-time, 60 per year Part-time, 90 per year	Full-time, 30 per year Part-time, 120 per year	Full-time, 30 per year Part-time, 70 per year	Part-time, 60 per year

Address of Teaching / Training Venue(s)	20 Tsing Yi Road, Tsing Yi Island, New Territories

2.1.1 Recommendations

For Bachelor of Engineering (Electrical Engineering) (Honours), Bachelor of Engineering (Civil and Infrastructure) (Honours) and Bachelor of Engineering (Mechanical Engineering) (Honours)

2.1.2 The Operator should consider revising the Programme Learning Outcomes (PLOs) to better reflect the uniqueness of each programme.

2.1.3 The Operator should review the assessments across the three Engineering programmes to ensure that students are required to demonstrate higher level cognitive skills.

For Bachelor of Engineering (Electrical Engineering) (Honours), Bachelor of Engineering (Civil and Infrastructure) (Honours), Bachelor of Engineering (Mechanical Engineering) (Honours) and Bachelor of Applied Science (Construction Management) (Honours)

2.1.4 The Operator should enhance their strategies to strengthen students' English language proficiency and presentation skills.

3. Programme Details

The following programme information is provided by the operator.

Bachelor of Engineering (Electrical Engineering) (Honours)

3.1 Programme Objectives

- Provide learning experiences that provide graduates of this programme with the knowledge and skills essential for a professional career in electrical engineering.
- To prepare students, upon graduation from the programme, to be ready to take up employment in the electrical engineering, power generation and distribution and related industries. The related

industries include the aerospace, automotive, manufacturing, electronics, computing, resource, defence, and primary industries.

3.1.1 Programme Learning Outcomes

Knowledge and Skill Base

- Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline.
- Conceptual understanding of the, mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline.
- In-depth understanding of specialist bodies of knowledge within the engineering discipline.
- Discernment of knowledge development and research directions within the engineering discipline.
- Knowledge of contextual factors impacting the engineering discipline.
- Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the specific discipline.

Engineering Application Ability

- Application of established engineering methods to complex engineering solving.
- Fluent application of engineering techniques, tools and resources.
- Application of systematic engineering synthesis and design processes.
- Application of systematic approaches to the conduct and management of engineering projects.

Professional and Personal Attributes

- Ethical conduct and professional accountability.
- Effective oral and written communication in professional and lay domains.
- Creative, innovative and pro-active demeanour.
- Professional use and management of information.
- Orderly management of self and professional conduct.
- Effective team membership and team leadership.

Bachelor of Engineering (Civil and Infrastructure) (Honours)

3.2 Programme Objectives

- To develop a sustainability framework for engineering decision making.
- To develop personal and professional graduate capabilities in sustainability, problem-solving and decision-making, technical competence, communication and teamwork.
- To encourage collaboration as a powerful way of helping students to be more effective learners, and staff to be more effective teachers.

3.2.1 Programme Learning Outcomes

Knowledge and Skill Base

- Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline.
- Conceptual understanding of the, mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline.
- In-depth understanding of specialist bodies of knowledge within the engineering discipline.
- Discernment of knowledge development and research directions within the engineering discipline.
- Knowledge of contextual factors impacting the engineering discipline.
- Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the specific discipline.

Engineering Application Ability

- Application of established engineering methods to complex engineering solving.
- Fluent application of engineering techniques, tools and resources.
- Application of systematic engineering synthesis and design processes.
- Application of systematic approaches to the conduct and management of engineering projects.

Professional and Personal Attributes

- Ethical conduct and professional accountability.
- Effective oral and written communication in professional and lay domains.

- Creative, innovative and pro-active demeanour.
- Professional use and management of information.
- Orderly management of self and professional conduct.
- Effective team membership and team leadership.

Bachelor of Engineering (Mechanical Engineering) (Honours)

3.2.2 Programme Objectives

- To provide students with the skills to become an employable and effective mechanical engineer within a national and international context.
- To prepare students for a wide range of career possibilities by developing particular graduate attributes which will be of on-going benefit to students, industry and society as a whole.
- To produce graduates who will have been prepared to practice as an effective, high-level engineer and demonstrate:
  - The ability to utilise fundamental knowledge and skills in mathematics and the sciences which underpin engineering.
  - Sound skills and appropriate understanding of disciplines relevant to mechanical engineering and its practice.
  - Suitable design skills, appropriate creativity, intellectual discipline, and professional skills relevant to working with others.
  - The ability to communicate students ideas in a way appropriate to students profession and to the wider community in general.
  - The ability to learn in a self-directed way that will support professional extension in students working life and that will lead students to adapt through technological and social change.

3.2.3 Programme Learning Outcomes

Knowledge and Skill Base

- Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline.
- Conceptual understanding of the, mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline.
- In-depth understanding of specialist bodies of knowledge within the engineering discipline.
- Discernment of knowledge development and research directions within the engineering discipline.

- Knowledge of contextual factors impacting the engineering discipline.
- Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the specific discipline.

Engineering Application Ability

- Application of established engineering methods to complex engineering solving.
- Fluent application of engineering techniques, tools and resources.
- Application of systematic engineering synthesis and design processes.
- Application of systematic approaches to the conduct and management of engineering projects.

Professional and Personal Attributes

- Ethical conduct and professional accountability.
- Effective oral and written communication in professional and lay domains.
- Creative, innovative and pro-active demeanour.
- Professional use and management of information.
- Orderly management of self and professional conduct.
- Effective team membership and team leadership.

Bachelor of Applied Science (Construction Management) (Honours)

3.2.4 Programme Objectives

- Develop the skills and knowledge required to meet the industry need for specialisation. This program has been structured to develop student knowledge of the construction process in the wider social, environmental, regulatory, technical and economic contexts.
- Critically engage with contemporary construction management theory, situating student learning in the wider industry context.
- Critically evaluate and apply construction management concepts and methodologies. Students will develop their ability to formulate and justify evidenced based solutions to industry problems.
- Develop specialised skills, which will be underpinned by their research and investigative skills, and their ability to critically assess the increasingly complex construction management industry and market.
- Learn and apply discipline specific and interdisciplinary knowledge of construction management practice and principles to a range of organisational contexts and construction industry settings, that will

enable students to contribute effectively to the management of the construction process. Students will develop the skills required to apply their theoretical and practice based knowledge to meet the needs of a range of stakeholders within the construction industry including contractors, developers and consultants.

- Graduates of this program will be equipped with a sound knowledge of construction management strategies, production factors and the industrial environment within local and global contexts and will be able to independently analyse industry trends, current and emerging. Graduates will be adept in working independently and collaboratively, applying their well-developed cognitive and technical skills to address and respond to industry issues, scenarios, trends and problems.

3.2.5 Programme Learning Outcomes

- Determine and apply knowledge of complex construction management theory to their professional practice and/or further study.
- Professionally communicate to a range of audiences, demonstrating in depth knowledge of the discipline and of the needs of diverse construction management stakeholders.
- Apply logical, critical and creative thinking to analyse, synthesise and apply theoretical knowledge, and technical skills, to formulate evidenced based solutions to industry problems or issues.
- Utilise appropriate methods and techniques to design and /or execute a research based or professionally focused construction management project, demonstrating capacity for independent and collaborative learning, addressing real world industry issues.
- Collaborate effectively with others and demonstrate intellectual independence and autonomy to solve problems and/or address industry issues and imperatives.
- Critically examine and reflect on the profession, in local and/or global contexts, and question accepted interpretations and decision making.

3.3 Programme Structure

Bachelor of Engineering (Electrical Engineering) (Honours)

3.3.1 In Hong Kong, this programme is a two-year full-time or three-year part-time top-up degree programme, which includes 16 courses (12 core courses and four electives) totaling 192 credit points.

Core courses
Electrical Plant
Engineering Design 3A
Engineering Design 3B
Research Methods for Engineers
Engineering Design 4A
Engineering Design 4B
Communications Engineering 1
Signals and Systems 1
Electrical Energy Conversion
Power System Analysis and Control
Control Systems
Professional Engineering Experience Undergraduate
Elective courses
Advanced Control Systems
Protection and High Voltage Engineering
Advanced Power Systems
Introduction to Electrical Building Design
Electronic Circuits
Embedded System Design and Implementation
Industrial Automation
Variable Speed Drives
Renewable Electrical Energy Systems

Bachelor of Engineering (Civil and Infrastructure) (Honours)

3.3.2 This programme in Hong Kong is a two-year full-time or three-year part-time top-up degree programme, which includes 15 core courses totaling 192 credit points.

Core courses
Geotechnical Engineering 2
Analysis of Complex Structures
Engineering Practice 5 – Construction Management
Concrete Structures 2
Stormwater Management
Engineering Practice 6 – Sustainable Infrastructure Design
Catchment Water Management
Transport Engineering 2
Infrastructure Management
Steel Structures 2
Long Span and High Rise Structures
Transport Engineering 3
Geotechnical Engineering 3
Research Project Part 2
Research Project Part 1A

Bachelor of Engineering (Mechanical Engineering) (Honours)

3.3.3 In Hong Kong, this programme is a two-year full-time or three-year part-time top-up degree programme, which includes 14 core courses totaling 192 credit points.

Core courses
Mechanics of Fluids and Solids 2
Solid Mechanics 3
Mechanical Design 2
Applied Heat & Mass Transfer
Finite Element Analysis
Management of Mechanical Design and Research
Renewable Energy Systems
Professional Research Project 1
Professional Research Project 2
Engineering Dynamics
Mechanical Vibrations
Advanced Thermo-Fluid Mechanics
Mechanics of Machines
Automatic Control

Bachelor of Applied Science (Construction Management) (Honours)

In Hong Kong, this programme is a three-year part-time top-up degree programme, which includes 16 core courses.

Core courses
Managing for Sustainability
Construction Contract Law
Construction, Planning and Design 2
Cost Planning and Tendering
Structures and Materials 2
Building Science
Construction Contract Administration
Construction Specialisation
Industrial Environment
Construction, Planning and Design 3
Introduction to Construction Processes
Building Measurement and Estimating
Management and Leadership in Construction
Research Methods for the Built Environment
Research Practice 1
Research Practice 2

3.4 Graduation Requirements

To be eligible for graduation students must complete 192 credit points of the top-up degree programmes in Hong Kong. For students of Bachelor of Engineering (Electrical Engineering) (Honours), Bachelor of Engineering (Civil and Infrastructure) (Honours) and Bachelor of Engineering (Mechanical Engineering) (Honours), a 12-week full-time work experience is required.

3.5 Admission Requirements

The admission requirements are as follows:

Bachelor of Engineering (Electrical Engineering) (Honours)
Applicants who have successfully completed a Higher Diploma in Electrical Engineering awarded by a Hong Kong Government-recognised Institute (or equivalent institution) approved by RMIT, and have achieved an average grade of C+ or better.

Bachelor of Engineering (Civil and Infrastructure) (Honours)
Applicants who have successfully completed a Higher Diploma in Civil Engineering awarded by a Hong Kong Government-recognised Institute (or equivalent institution) approved by RMIT, and have achieved an average grade of C+ or better.

Bachelor of Engineering (Mechanical Engineering) (Honours)
Applicants who have successfully completed a Higher Diploma in Mechanical Engineering awarded by a Hong Kong Government-recognised Institute (or equivalent institution) approved by RMIT, and have achieved an average grade of C+ or better.

Bachelor of Applied Science (Construction Management) (Honours)
Graduates of the following programmes who have achieved an average grade of C+ or better:

Vocational Training Council:
- Higher Diploma in Building Studies
- Higher Diploma in Surveying

Hong Kong Polytechnic University:
- Higher Diploma in Building Technology and Management (Surveying)
- Higher Diploma in Building Technology and Management (Engineering)

City University of Hong Kong:

- Associate of Science in Construction Engineering and Management
- Associate of Science in Surveying (Building Surveying)
- Associate of Science in Surveying (Quantity Surveying)

English Language Entry Requirement

Applicants who have:

- English Language test requirement (minimum score) of (a) IELTS 6.5 with no band lower than 6.0; or (b) TOEFL score of 580+ (TWE 4.5+); or
- RMIT English Worldwide (REW) Advanced 2 or equivalent; or
- Successful completion of at least the equivalent of a two-year tertiary programme of at least AQF Level 5 within the past five years where English is the language of teaching and assessment.

4. Substantial Change

4.1 HKCAAVQ may vary or withdraw the Accreditation Report if it is satisfied that any of the grounds set out in section 5 (2) of the AAVQO apply. This includes where HKCAAVQ is satisfied that the Operator is no longer competent to achieve the relevant objectives and/or the Programme no longer meets the standard to achieve the relevant objectives as claimed by the Operator (whether by reference to the Operator's failure to fulfil any conditions and/or comply with any restrictions stipulated in this Accreditation Report or otherwise) or where at any time during the validity period there has/have been substantial change(s) introduced by the Operator after HKCAAVQ has issued the accreditation report(s) to the Operator and which has/have not been approved by HKCAAVQ. Please refer to the '*Guidance Notes on Substantial Change to Accreditation Status*' in seeking approval for proposed changes. These Guidance Notes can be downloaded from the HKCAAVQ website. The accreditation status of the Operator and/or Programme will lapse immediately upon the expiry of the validity period or upon the issuance of a notice of withdrawal of the Accreditation Report.

5. Qualifications Register

5.1 Qualifications accredited by HKCAAVQ are eligible for entry into the Qualifications Register (QR) at http://www.hkqr.gov.hk for recognition under the Hong Kong Qualifications Framework (HKQF). The

Operator should apply separately to have their quality-assured qualifications entered into the QR.

5.2 Only learners who commence the study of the named accredited learning programme during the validity period and who have graduated with the named qualification listed in the QR will be considered to have acquired a qualification recognised under the HKQF.