

**APEC ENGINEER REGISTER
ASSESSMENT STATEMENT**



**Asia-Pacific
Economic Cooperation**

**By
CHINESE TAIPEI
APEC ENGINEER MONITORING COMMITTEE**

Latest Revised on 3 June 2021

CONTENTS

PREFACE	3
PART A CHINESE TAIPEI APEC ENGINEER MONITORING COMMITTEE	5
A.1 MAIN TASKS OF THE COMMITTEE	5
A.2 ORGANIZATION OF CHINESE TAIPEI APEC ENGINEER MONITORING COMMITTEE	6
A.3 OPERATION	7
A.4 ESTABLISHMENT OF ASSESSMENT PANEL AND PRELIMINARY REVIEW TEAMS	7
PART B ASSESSMENT MECHANISMS	8
B.1 RECOGNITION OF HIGHER ENGINEERING EDUCATION PROGRAMS	8
(I) Requirements stipulated in the APEC Engineer Manual.....	8
(II) Criteria of the Academic Achievement in Chinese Taipei	9
B.2 ASSESSMENT MECHANISM FOR INDEPENDENT PRACTICE.....	10
B.3 ASSESSMENT ON COMPETENCY OF PRACTICAL EXPERIENCE.....	10
(I) Assessment on Compulsory Units.....	11
(II) Assessment on Elective Units	11
(III) Interview	12
B.4 CONTINUING PROFESSIONAL DEVELOPMENT	13
B.5 CODES OF CONDUCT	14
B.6 AUDIT AND APPEAL OF APEC ENGINEERS.....	14
PART C ENGINEERING DISCIPLINES	16
PART D APPLICATION GUIDELINES	17

ATTACHMENTS

18

ATTACHMENT 1	BY-LAWS OF THE CHINESE TAIPEI APEC ENGINEER MONITORING COMMITTEE	19
ATTACHMENT 2	ACCREDITATION MECHANISM FOR HIGHER EDUCATION SYSTEM OF THE CHINESE TAIPEI	23
ATTACHMENT 3	THE CURRICULUM REQUIREMENTS ELIGIBLE FOR EXAMINATION OF PROFESSIONAL ENGINEER WITHIN CHINESE TAIPEI N.....	28
ATTACHMENT 4	EXAMINATION OF PROFESSIONAL ENGINEER HELD BY THE EXAMINATION YUAN	34
ATTACHMENT 5	ASSESSMENT CRITERIA OF PRACTICAL EXPERIENCE.....	38
ATTACHMENT 6	CRITERIA OF CONTINUING PROFESSIONAL DEVELOPMENT	44
ATTACHMENT 7	CODES OF ETHICS FOR CHINESE TAIPEI APEC ENGINEERS.....	51
ATTACHMENT 8	APPLICATION GUIDELINES	53

ANNEXES

62

<u>ANNEX 1</u>	<u>NAME LIST OF CURRENT MEMBERS OF THE COMMITTEE.....</u>	<u>63</u>
<u>ANNEX 2</u>	<u>APPLICATION FORMS</u>	<u>67</u>

CHINESE TAIPEI APEC ENGINEER ASSESSMENT STATEMENT

Latest Revised on 3 June, 2021

PREFACE

The intent of the APEC Engineer Register is to recognize the equivalencies in the qualifications and experience of practicing professional engineers in the participating economies and to facilitate the mobility for cross border practice of qualified engineers among participating economies.

The APEC Engineer Coordinating Committee will approve and monitor the operation of the APEC Engineer Registration undertaken by each of Monitoring Committees of the participating economies.

Following the stipulations of the *APEC Engineer Manual*, the Central Government Agency (the Government) of the Chinese Taipei Economy (the Chinese Taipei) in charge of issuing professional licenses and registrations and the Chinese Institute of Engineers (the CIE) have jointly appointed the committee members for establishing the Chinese Taipei APEC Engineer Monitoring Committee (the Committee). These members are representatives from engineering institutes and associations, universities, relevant industries and the Government agencies concerned.

The Committee was established on 24 March 2005 as the sole non-governmental body to undertake the assessment and registration of APEC Engineers within the Chinese Taipei in accordance with the *APEC Engineer Manual*.

Following the requirements stipulated in *APEC Engineer Manual*, the Committee prepared and submitted the initial Assessment Statement on 10 June, 2005 applying for a membership of APEC Engineer Register. The Assessment Statement was approved by the APEC Engineer Coordinating Committee at its Fifth Meeting held in Hong Kong in 2005. The Chinese Taipei was then admitted as a full

member of the Coordinating Committee. On 16 June 2007 at the Sixth Meeting, the Coordinating Committee approved the First Revision of the Assessment Statement submitted by the Chinese Taipei. Thereafter, the subsequent revisions are duly incorporated in this Statement.

The disciplines of the Chinese Taipei APEC Engineers covered under this revised Assessment Statement are limited to Civil Engineering, Structural Engineering, Geotechnical Engineering, Electrical Engineering, Environmental Engineering, Hydraulic Engineering, Mechanical Engineering, Soil and Water Conservation, Surveying, as well as Applied Geology. Other disciplines will be further applied for inclusion in due course, when necessary. Most of this statement is in generic terms applicable to all disciplines of APEC Engineer. However, specific processes of assessment for each of the aforesaid ten disciplines are also given in the Statement, when required.

Furthermore, the Committee intends to review the Statement from time to time as the situation may warrant under assistance and guidance of the Coordinating Committee.

PART A CHINESE TAIPEI APEC ENGINEER MONITORING COMMITTEE

A.1 Main Tasks of the Committee

The Committee will conduct activities related to:

(I) Participation in the Affairs of APEC Engineer Coordinating Committee

APEC Engineer Coordinating Committee is an international organization, with Authorized Members, Conditional Members and Provisional Members. Each Authorized Member has one vote under its jurisdiction. The Committee aims to develop and maintain the APEC Engineer Registers of Participating Members, and promote the accreditation system.

(II) The Assessment and Registration of APEC Engineers within the Chinese Taipei

APEC Engineers within the Chinese Taipei recognize that the responsibilities of engineers often progress during their career, reflecting an increasing emphasis on management roles, and causing practitioners to engage in continuing professional development activities relevant to practice. Registration indicates maintained competence in professional practice.

(III) The Mutual Exemption Agreement of APEC Engineers

APEC Engineers will be expected to practice in other member economies, if Mutual Exemption Agreements are concluded with such member economies.

(IV) The APEC Engineers Mutual Recognition and Implementation

Participation in the APEC Engineer Register promotes the substantial equivalence in competence of all APEC Engineers. The Committee advances to operate in matters related to the Mutual Exemption Framework developed by the APEC Engineer Coordinating Committee.

A.2 Organization of Chinese Taipei APEC Engineer Monitoring Committee

The overall organization structure of the Monitoring Committee of Chinese Taipei is shown in Fig. 1 below. According to the by-laws (please refer to Attachment 1), the Committee comprises twenty-one (21) to twenty-nine (29) Committee members and two (2) Supervisors. All of them are appointed jointly by the Government and the CIE, nominated or elected from engineering associations and institutes, universities and government agencies concerned. The name list of current members of this Committee is as listed in **Annex 1**.

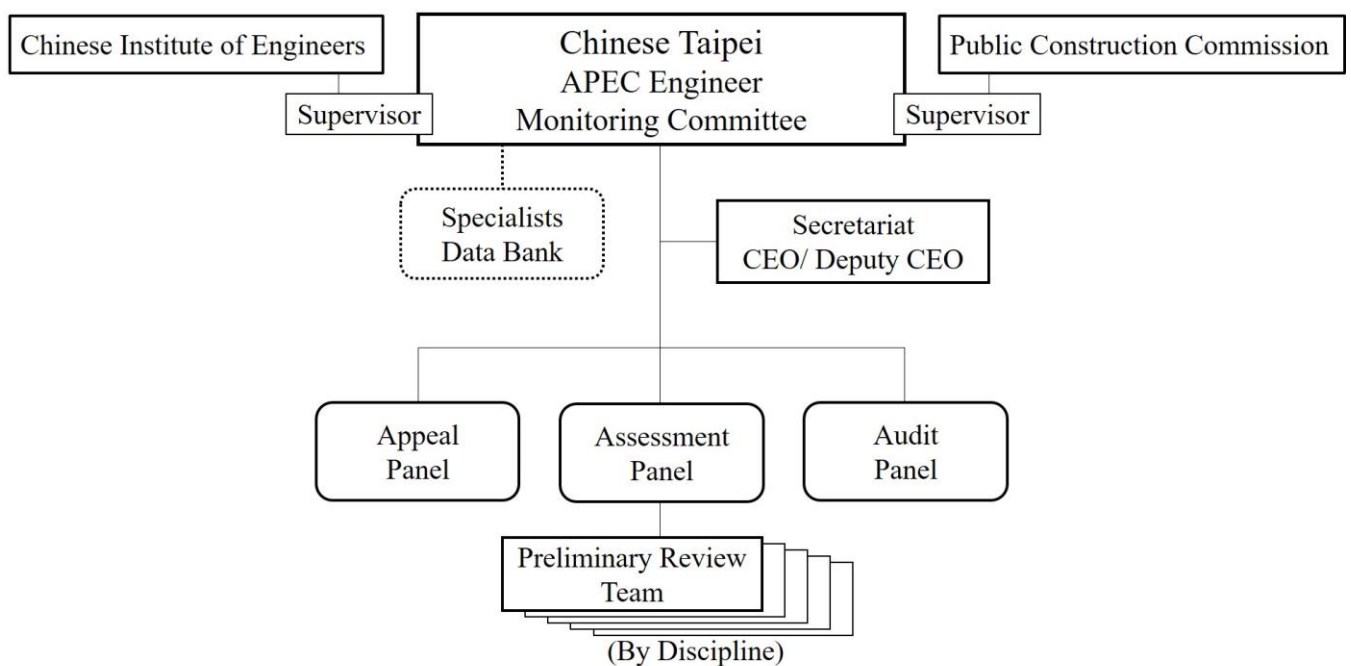


Fig.1 Organization Chart of Chinese Taipei APEC Engineer Monitoring Committee

A.3 Operation

The Government has authorized the Committee as the sole non-government body for exclusively and independently handling all matters regarding to APEC Engineers, and the operation of the Committee is subject to monitoring of the APEC Engineer Coordinating Committee in the manner stipulated in the APEC Engineer Manual. For operational mechanism of the Committee, please refer to **Attachment 1, By-Laws of the Chinese Taipei APEC Engineer Monitoring Committee**.

A.4 Establishment of Assessment Panel and Preliminary Review Teams

The Assessment Panel is composed of eleven (11) to seventeen (17) members. Both the Appeal Panel and Audit Panel are composed of three (3) to five (5) members. Members of the aforesaid panels who will be appointed by the Committee from the Specialist Data Bank have a two-year term.

Each of the Preliminary Review Teams (the PRT) is composed of three (3) members, who will be appointed by the Assessment Panel from the Specialist Data Bank according to the need of individual discipline to be assessed.

The Specialist Data Bank comprises senior professionals and senior specialists from industry sectors, all with more than 20 years of experience, or full professors with more than five years teaching and research experience. Their data are respectively listed into the Data Bank according to their expertise by categories of disciplines, after being reviewed and accepted by the Committee.

As an alternative, the Committee may also entrust the related professional institutions or societies to organize the Assessment Panels for execution of assessment work.

All of the PRTs will function on the task-force basis, which will be established or dismissed whenever deemed necessary from time to time.

Office of Chinese Taipei APEC Engineer Monitoring Committee
Address: 3F, No. 1, Ren-Ai Rd., Sec. 2, Taipei, Taiwan 100, R.O.C.
Tel: +886-2-23925128
Fax: +886-2-23973003
Email: apecengineer@cie.org.tw
<http://www.apec-ipea.org.tw>

PART B ASSESSMENT MECHANISMS

The Assessment Mechanism proposed by the Committee in the following paragraphs is of a generic nature applicable to all engineering disciplines. As the assessment applicable at present is intended for Civil Engineering, Structural Engineering, Geotechnical Engineering, Electrical Engineering, Environmental Engineering, Hydraulic Engineering, Mechanical Engineering, Soil and Water Conservation, Surveying, as well as Applied Geology disciplines, a specific assessment mechanism required for each of the ten disciplines is also given in this Statement, where required.

B.1 Recognition of Higher Engineering Education Programs

(I) Requirements stipulated in the APEC Engineer Manual

According to the APEC Engineer Manual, in order to be listed on an APEC Engineer Register, applicants must demonstrate to the Committee a level of academic achievement at, or following, completion of formal education substantially equivalent to that associated with successful completion of the education assessment mechanisms. Five options as described below are provided for consideration:

1. An engineering degree delivered and accredited in accordance with the best practice guidelines developed by the Federation of Engineering Institutions of Asia and the Pacific; or
2. An engineering degree accredited by an organization holding full membership of, and operating in accordance with the terms of, the Washington Accord; or
3. The 1st Step Examination of the Professional Engineer Examination set by The Institution of Professional Engineers, Japan (IPEJ); or
4. The combined Fundamentals of Engineering and Principles and Practices of Engineering Examinations set by the United States National Council of Examiners for Engineering and Surveying; or
5. An engineering program accredited by a body independent of the education provider, or an examination set by an authorized body within an economy, provided that the accreditation criteria and procedures, or the examination standards, as appropriate, have been submitted by one or more monitoring

committees to, and endorsed by, the APEC Engineer Coordinating Committee.

It is noted that the final option (No.5 listed above) is designed to be an open-ended mechanism, allowing alternative procedures and criteria to be submitted by a monitoring committee for evaluation and acceptance of the Coordinating Committee.

(II) Criteria of the Academic Achievement in Chinese Taipei

As for the accreditation of education system in the Chinese Taipei, the Committee adopts the following criteria for meeting the requirements stipulated under Item (I) of this Section:

An applicant shall be deemed acceptable

1. If he/she has successfully completed his/her higher education program and obtained degree from a school outside the Chinese Taipei, whose education programs have duly met any one of the requirements stipulated in the Manual of APEC Engineer manual as shown under Item (I) of this Section; or
2. If he/she has successfully completed his/her higher education program and obtained degree from a school in the Chinese Taipei, whose education programs have been duly accredited by the IEET (for more details of the IEET, please refer to Attachment 2);
3. If he/she has successfully completed his/her higher education program and obtained degree from a government-approved and registered public or private university, and fulfilled the curriculum requirements in alignment with that eligible for examination of professional engineer within Chinese Taipei. Refer to Attachment 3 for the curriculum requirements of different disciplines.
4. If he/she, after graduated from an engineering college without obtaining a bachelor degree, has successfully obtained a post graduate degree (master's or higher degree) from a school which meets the requirements of any one of the five options listed in the APEC Engineer Manual or Criteria 1 to 3 prescribed above by the Chinese Taipei.

B.2 Assessment Mechanism for Independent Practice

The assessment for the qualification of Independent Practice shall be conducted by the PRT in accordance with requirements as follows,

- (I) Passing the Professional Qualification Examination as described in **Attachment 4**, for obtaining the qualification of a professional, and acquire at least 2 years actual engineering experience with competent document evidence by the Government for, a) obtaining the Practical License for working in consulting firms, or running their own professional engineer offices, or alternatively, b) registered as Principal Engineer working with construction companies.
- (II) Being Senior Member of the Chinese Institute of Engineers (CIE), and a) has more than 10 years actual engineering experience in well-established and registered engineering consulting firms or construction companies in Chinese Taipei, in which minimum of 5 years shall undertake managerial positions (detailed experiences shall be shown on Application Form 3), or, b) is being listed in the “Expert Recommendation Databank” of the Public Construction Commission of the Executive Yuan of Chinese Taipei.

B.3 Assessment on Competency of Practical Experience

For evaluation of practical experience of applicants, the applicants under consideration shall be examined for whether they have practiced in broad areas of engineering theory application, management, communication and social implications of engineering, and whether their practicing have been carried out in competent, independent, and ethical manner. Furthermore, the Committee shall also evaluate whether they have, through practice, acquired professional skills and sound engineering judgment in addition to their educational qualifications.

For demonstrating their competency of engineering experience, applicants shall prepare segments of narrative description to fill out in the Application Forms enclosed hereunder. Each of the narrative segments is defined as an Experience Unit describing their actual experiences for supporting the competency claimed by the applicants. The Experience Units are classified into the Compulsory

Units and the Elective Units, subject to respective assessment by the Committee as stipulated below.

For assessment of each of Compulsory Units and the Elective Units, the criteria for acceptable competent levels have been indicated in terms of “Observable” or “Qualitative Performance” with its corresponding code number assigned as shown in Tables 1 and 2 enclosed in Attachment 5 below.

Based on these performance levels, the practice experience submitted and claimed by the applicants shall be assessed for determination of acceptance or rejection.

(I) Assessment on Compulsory Units

Table 1 listed in Attachment 5 specifies the following two Compulsory Units, which must be all addressed by the applicants; otherwise the application documents shall be deemed incomplete and rejected.

1. A minimum of 7-year experiences after graduated from university (Using Application Form 3 enclosed hereunder); and
2. At least 2 years out of 7-year experiences, being responsible of significant engineering works, among which one Unit of competent levels shall be selected and claimed by the applicant for application (Using Application Form 4 enclosed hereunder)

(II) Assessment on Elective Units

Table 5-2 listed in Attachment 5 specifies the following six different engineering fields, and against each of which, multiple Experience Units with acceptable performance levels are indicated. The applicant shall select at least three Units from those Units (Regardless of engineering fields) in connection with their 7-year working experiences for supporting expertise claimed (Using Application Form 5 enclosed hereunder)

1. Planning or design
2. Project Management or Construction Supervision

3. Contribution to Engineering Practice
4. Research and Development
5. Contribution to Public Work Sector
6. Promotion of Engineering Profession

In case less than three Experience Units are selected and submitted, such an application document is deemed insufficient, and shall be rejected.

The Preliminary Review Team (the PRT) shall read carefully and analyze in depth the above-submitted application documents. During this initial paper review, the following points of an applicant related with his/her practice shall be specifically examined by the PRT: (1) Personal contribution and responsibilities; (2) The problems faced; (3) The solution found; (4) The engineering judgments made; and (5) Impact generated by such solution and judgments. Based on the information, the PRT shall formulate strategy of, and prepared questions for applicant in the Interview stipulated below.

For the details, please refer to **Attachment 5 Assessment Criteria of Practical Experience** enclosed hereunder.

(III) Interview

Only those, whose submitted documents have passed the preliminary assessment, shall be notified to attend the Interview, which shall be conducted by the PRT for clarifying the inadequacy identified in relation to the application documents.

The first half of the Interview is allocated to the applicant for making the uninterrupted presentation of their claimed expertise and the related experience, and then followed by questions raised by the PRT and answered by the applicant. During the Interview, the PRT shall listen to and evaluate the presentation made, and shall assess instant responses made by the applicant against questions raised.

The applicants shall be deemed professionally competent, if their practice performance demonstrated in Application Form 3, 4, 5 enclosed hereunder meets satisfactorily the competent levels as specified and evaluated, and their presentation as well as their instant responses made against the questions raised

during the Interview session are all acceptable.

B.4 Continuing Professional Development

Continuing professional development (CPD) is required for all APEC Engineers as stipulated in the Manual of APEC Engineer.

The continuing professional training activities will be classified, according to sponsors, into Categories I, II, and III. The Category I of the training activities is sponsored, entrusted, authorized or recognized by the Central Government Agency in charge of control and administration of local professionals. Category II of the training activities is sponsored, co-sponsored, authorized, or recognized by the Committee. Category III of the training activities is sponsored by the agencies other than those of the aforesaid two categories.

The Category I and III CPD credit-hours could be exclusively counted as category II, if and only if the activities are held by CIE or the member associations of the professional engineers.

(I) For Application for an APEC Engineer:

Within two years prior to the date for submittal of the first application, the total credit-hours of CPD required for each of the applicants shall be not less than 50, in which the credit-hours belonging to Category I shall not be less than 15. For every additional discipline applied, the extra credit-hour of CPD activities required is 25.

(II) For Renewal of APEC Engineer Registry:

APEC Engineer registry shall be renewed annually, and credit-hours shall be reviewed every four (4) years. The total CPD credit-hours required for each applicant shall be not less than 180, of which Categories I and II shall not be less than 55 and 25 respectively. For every additional discipline to be renewed, the extra credit-hour of CPD activities required is 100.

The credit-hours obtainable by the applicants shall be as shown in Attachment 6 Criteria of Continuing Professional Development enclosed hereunder, if they

have participated in each of the training activities and receipt of valid evidence duly issued by the activity sponsors. The applicants shall fill out Summary of CPD claimed, and attached with relevant copies of the certificates or valid evidences of attendance of the activities for review by the Committee.

Failure to comply with the aforesaid requirements may result in rejection of first application, or renewal of the license.

The Chinese Taipei shall strictly follow the Attachment 6, prescribing the requirements for the CPD of APEC Engineer for registering or renewal registering with the Committee.

B.5 Codes of Conduct

All applicants seeking registration for APEC Engineer in the Chinese Taipei shall agree to be bound by “the Codes of Ethics for Chinese Taipei APEC Engineer (the Codes)” prepared by the Committee as indicated in Attachment 7 enclosed hereunder. Engineers seeking admittance to the APEC Engineer Registry are required to admit, that they will fully observe and be bound by the Codes, and that they have an obligation to inform the Committee of any matter that may affect their fitness for registration.

A reaffirmation shall be required at each renewal of the registration, after the initial registration. A suspension or revocation of one’s license to engineering practice may constitute just cause for removal from the APEC Engineer Registration.

Confirmation of observation by applicant of the Codes of Ethics of Chinese Taipei APEC Engineer shall be indicated in the Form 1 Self Assessment for Application Submittal, and Form 7, both subject to further re-confirmation during the Interview Session.

B.6 Audit and Appeal of APEC Engineers

Every APEC Engineer after the registration shall be subjected to random audit of their statements of engineering practice, and records of Continuing

Professional Development, etc. as described in Attachment 6 enclosed hereunder over the immediate past four-year period. Accordingly, an Auditor Panel will be set up within the Committee for this purpose. The Committee shall select from the Specialists Data Bank for appointment of the Panelists.

Any registered APEC Engineer shall, if so selected for auditing by the Audit Panel, be promptly responsive to requests made by the Audit Panel, including submittal of clarification statements, or presence at meetings for verbal explanation or clarification regarding the points audited.

An Appeal Panel is set up in the Committee in accordance with the APEC Engineer Manual for dealing with any complaint or protest made in writing against the operation of the Committee.

PART C ENGINEERING DISCIPLINES

The Committee currently accepts assessment of engineers in ten (10) disciplines, namely Civil Engineering, Structural Engineering, Geotechnical Engineering, Electrical Engineering, Environmental Engineering, Hydraulic Engineering, Mechanical Engineering, Soil and Water Conservation, Surveying, as well as Applied Geology. Other disciplines will be applied for in due course.

Indicative Scope of Education and Practice covering the examination qualification requirements is all set forth by the Examination Yuan in details (see **Attachment 3**) for the above-mentioned engineering:

PART D APPLICATION GUIDELINES

All information required and Application Forms to be completed by applicants are compiled in **Attachment 8**, which includes: (1) Preface; (2) Definition of APEC Engineer; (3) Qualification required as an APEC Engineer; (4) Documents to be prepared by an Applicant; (5) Assessment Procedure; (6) Registration Procedure; (7) Assessment for Renewal of Registration; (8) Auditing; (9) Fee Schedule; (10) Appeal Panel; and (11) Contact Persons.

The **Attachment 8**, Application Guidelines include all necessary Attachments and Application Forms for use by the prospective applicants. It is also posted on website of the Committee for local professionals to obtain related information through Internet.

(End of Main Text)

ATTACHMENTS

- Attachment 1 By-Laws of the Chinese Taipei APEC Engineer Monitoring Committee
- Attachment 2 Accreditation Mechanism for Higher Education System of IEET
- Attachment 3 The Curriculum Requirements Eligible for the Examination of Professional Engineer Within Chinese Taipei
- Attachment 4 Examination of Professional Engineer Held by the Examination Yuan
- Attachment 5 Assessment Criteria of Practical Experience
- Attachment 6 Criteria of Continuing Professional Development
- Attachment 7 Codes of Ethics for Chinese Taipei APEC Engineers
- Attachment 8 Application Guidelines

Attachment 1

By-Laws of the Chinese Taipei APEC Engineer Monitoring Committee

Amended by the 62nd Committee Meeting on June 22, 2020

- Article 1 Under the authorization of the competent Central Government Agency as indicated in the Professional Engineers Act (hereinafter referred as CGA), the Chinese Institute of Engineers (hereinafter referred to as CIE) organized and established the Chinese Taipei APEC Engineer Monitoring Committee (hereinafter referred to as the Committee) acting as the sole official representative of the Chinese Taipei Economy in charge of all matters relating to APEC Engineers.
- Article 2 The purposes for establishment of the Committee are to develop and maintain register of local APEC Engineers; and to promote mutual recognition of APEC Engineers among the member economies, and to assist them to practice business abroad so as to elevate the international status of local APEC Engineers.
- Article 3 The major responsibilities of the Committee as commissioned shall be:
- (1) To conduct local APEC Engineers qualification recognition under the authorization of the APEC Engineer Coordinating Committee;
 - (2) To collaborate closely with the APEC Engineer Coordinating Committee in managing matters relating to APEC Engineers, and to engage in the operations of the Coordinating Committee, sponsor, co-sponsor and participate meetings or seminars related.
 - (3) To register, issue, renew, audit and control APEC Engineer Registry of local engineers after recognition of their qualification.
 - (4) To assist the Government in expediting sign of bilateral or multi-lateral agreements relating to mutual recognition of APEC Engineers.
 - (5) To register and conduct the practice of foreign APEC Engineers recognized in other economies, according to bilateral or multilateral agreements signed.
 - (6) To maintain contacts with APEC Engineer Monitoring Committees

of other economies and exchange with them the information and materials related to APEC Engineers.

(7) To handle any other business related to APEC Engineers.

Article 4 The office of the Committee is located in the office of the CIE. However, the Committee may establish its office in other location, if required for the purpose of operations.

Article 5 The operations of the Committee shall be financed from the following sources:

(1) Annual subsidies from the government;

(2) Donations from private sectors;

(3) Fees and charges collectable through various operations and services.

Article 6 The Committee shall have twenty-one (21) to twenty-nine (29) Committee Members and two (2) Supervisors. Committee Members shall be jointly appointed by CGA and CIE with qualifications and composition provided below:

(1) Senior professionals and scholars from related disciplines within the Economy of Chinese Taipei shall comprise no less than two thirds of the total Committee membership, and one half of whom shall have the qualification of professional engineers, and

(2) Department heads from relevant Government Agencies.

The two Supervisorsshall be assigned separately by CGA and CIE.

The Chairman and two Vice Chairmen shall be jointly appointed by CGA and President of CIE from Committee Members, with duly notification to CIE Board of Directors.

The tenure of the Chairman, Vice Chairmen, Committee Members and Supervisors is two (2) years, which may be subject to succeeding extension, as long as they are so appointed.

Committee Member representing professional engineer associations appointed in accordance with Paragraph 1, Subparagraph 1 shall be nominated by relating national professional engineers association (or federations). The tenure of Committee members appointed in accordance with Paragraph 1, Subparagraph 2 shall be same as their tenure in the original government agency.

The Chairman, Vice Chairmen, Supervisors and all other Members of the Committee shall be acting without pay.

For any reason when a Committee Member cannot assume the appointed office, the vacancy shall be filled through joint reappointment by the competent Central Government Agency indicated in the Professional Engineers Act and CIE.

Article 7 Regular meetings of the Committee shall be held at every three months interval called and chaired by the Chairman.

The Chairman may call special meetings, when deemed necessary or when motioned by a minimum of one thirds of the Committee members.

Article 8 Resolutions of the Committee Meeting shall be effective with a minimum of one half of Committee Members present and voted affirmative by a minimum of two thirds of the attendance. However, for matters relating to the following important issues, the resolution shall be effective with a minimum of two thirds of Committee Members present and voted affirmative by a minimum of three quarters of the attendance, or with written consent of at least two thirds of Committee Members:

- (1) Amendment of the By-laws.
- (2) Change of the purpose for establishment of the Committee or dissolution of the Committee.

Article 9 For the purpose of assessment operation regarding to APEC Engineers, the Committee may establish an Assessment Panel, an Appeal Panel, an Audit Panel, and a Specialists Data Bank; Assessment Panels and Preliminary Review Teams for each of the APEC Engineer disciplines may be formed from time to time on a task-force basis. The regulations governing the establishment of such panels, teams as well as Specialist Data Bank shall be separately established by the Committee.

Article 10 The Committee shall have one Chief Executive Officer and one to two Deputy CEOs. Nomination and removal of the Chief Executive Officer or Deputy CEOs shall be proposed by the Chairman and subject to the approval of the Committee. The Chief Executive Officer shall manage all of the Committee matters under the direction of the Chairman.

To handle financing, accounting and general affairs of the Committee, an Administrative Team may be formed with its operation rules to be separately determined by the Committee.

Article 11 When required for the purpose of operations, the Committee may engage full-time or part-time advisers, accountants and general staff as proposed by the Chief Executive Officer and approved by the Chairman.

Article 12 Should it be affected by international situation, or should the purposes for which the Committee was established no longer exist, the Committee may be dissolved subject to the approval of CIE and the competent Central Government Agency indicated in the Professional Engineers Act. The remaining properties of the Committee as a result of dissolution shall belong to CIE.

Article 13 Any amendments to these By-laws shall be subject to the adoption of the Committee and shall become effective upon approval by both CIE and the competent Central Government Agency indicated in the Professional Engineers Act.

Attachment 2

Accreditation Mechanism for Higher Education System of the Chinese Taipei

This section contains a brief description of the Institute of Engineering Education Taiwan (IEET).

A. Introduction of IEET

With the supports from the Ministry of Education and National Science Council, IEET was founded in June 2003. IEET is an independent non-profit organization with accreditation of engineering and technology programs within Chinese Taipei as its primary function. In June 2007, IEET was accepted as a full signatory of the Washington Accord (WA). For more details about IEET, please refer to IEET's website at <http://www.ieet.org.tw/en>.

As a signatory of Washington Accord, IEET carries out its accreditation works based on the Rules and Procedures and Graduates Attributes prescribed by the Washington Accord.

B. IEET Graduates Attributes and Accreditation Criteria

Within IEET, the Accreditation Council (AC) is in charge of reviewing whether the accrediting engineering programs can provide students attainment of various skills, knowledges and competencies, so-called graduate attributes, by the time of their graduation. Following the graduate attributes requirement of Washington Accord, the IEET Graduate Attributes are listed below:

1. Ability to apply knowledge of mathematics, science, and engineering.
2. Ability to design and conduct experiments, as well as to analyze and interpret data.
3. Ability to apply techniques, skills, and modern tools necessary for engineering practice.
4. Ability to design an engineering system, component, or process.
5. Ability to manage project (including budgeting), communicate effectively, work

- in multi-disciplinary environment, and function on teams.
6. Ability to identify, formulate, research literature and analyses complex engineering problems reaching substantial conclusions.
 7. knowledge of contemporary issues; an understanding of the impact of engineering solutions in an environmental, societal, and global context; and the ability and habit to engage in life-long learning.
 8. Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice, and a sense of respect for diversity.

A wide spectrum of requirements is needed from programs to attain the aforementioned objectives. For that purpose, the Accreditation Council established the Accreditation Criteria for Accrediting Engineering Programs to assess programs for those requirements. The criteria is listed below:

Accreditation Criteria for Accrediting Engineering Programs

Institute of Engineering Education Taiwan
Accreditation Council

Approved by the Accreditation Council on November 27, 2015

Criteria 1 to 9 apply to bachelor's degree program; Criterion G applies to master's and above degree program

Criterion 1: Program Educational Objectives

This criterion assesses the program educational objectives (PEOs) and the validity of such objectives. The program seeking accreditation must:

- 1.1 publish detailed PEOs that demonstrate the program's characteristics and relevance to the contemporary trends and societal demands;
- 1.2 describe the relationship between the PEOs of the program and those of institution, as well as the process of establishing these objectives;
- 1.3 describe the manner in which the design of the curriculum is consistent with the PEOs;
- 1.4 institutionalize an effective assessment process to assure the achievement of the PEOs.

Criterion 2: Students

This criterion assesses the quality of education for students and capacity of the graduates. The program seeking accreditation must:

- 2.1 have appropriate regulations that are consistent with the PEOs;
- 2.2 have measures and policies encouraging students to engage in academic exchange and related learning activities;
- 2.3 institutionalize an effective advising and assessment system.

Criterion 3: Graduate Attributes and Assessment

This criterion assesses the graduate attributes. The program must demonstrate that students have attained the following outcomes by graduation:

- 3.1 ability to apply knowledge of mathematics, science, and engineering;
- 3.2 ability to design and conduct experiments, as well as to analyze and interpret data;
- 3.3 ability to apply techniques, skills, and modern tools necessary for engineering practice;
- 3.4 ability to design an engineering system, component, or process;
- 3.5 ability to manage project (including budgeting), communicate effectively, work in multi-disciplinary environment, and function on teams;
- 3.6 ability to identify, formulate, research literature and analyze complex engineering problems reaching substantial conclusions;
- 3.7 knowledge of contemporary issues; an understanding of the impact of engineering solutions in an environmental, societal, and global context; and the ability and habit to engage in life-long learning;
- 3.8 apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice, and a sense of respect for diversity.

Criterion 4: Curriculum

This criterion assesses the curriculum of the program:

- 4.1 Design and contents of the curriculum must be consistent with the PEOs, and the program must demonstrate through transcript analysis that coursework of each graduate includes the following three major components: mathematics and basic sciences, technical and professional engineering component, and general education. Specifically:
 - 4.1.1 mathematics and basic sciences must account for at least 9 credits and total to at least one fourth of the credits required for graduation;
 - 4.1.2 technical and professional engineering component must account for at least three eighths of the credits required for graduation including capstone design course;
 - 4.1.3 general education component must complement the technical contents of the discipline and be consistent with the PEOs.
- 4.2 Design and implementation of the curriculum must correlate the development of the industry and prepare students to culminate the learned knowledge and skills in engineering practice.

Criterion 5: Faculty

This criterion assesses the faculty of the program with regard to the following:

- 5.1 The full-time faculty must be of sufficient number;
- 5.2 The faculty must be involved in the formation and execution process of the PEOs;
- 5.3 The faculty must have the qualification and competencies to cover the professional knowledge of the subject areas in which they teach;
- 5.4 The program must demonstrate the effectiveness of faculty-student interactions and student advising;
- 5.5 The program must demonstrate the effectiveness of interactions of the faculty with industry;
- 5.6 The program must provide the faculty with the appropriate channels and incentives for professional growth and development;
- 5.7 The faculty must participate in relevant academic and professional

organizations and activities.

Criterion 6: Space and Facilities

This criterion assesses instructional facilities, space, and hard and software:

- 6.1 The program must provide an environment to foster effective faculty-student interaction;
- 6.2 The program must provide an environment to support the development of professional knowledge and skills of students;
- 6.3 The program must provide enough opportunities and guidance for students to learn the use of the specialized equipment and tools;
- 6.4 Computing and information infrastructure must be in place to support the teaching activities of the program;
- 6.5 The program must provide a safe learning environment and have appropriate system in place to maintain, upgrade, and manage these facilities.

Criterion 7: Institutional Support and Financial Resources

This criterion assesses the institutional support and financial resources of the program:

- 7.1 The institution must provide adequate support and financial resources to assure the quality and continuity of the program, along with constructive leadership and management;
- 7.2 Resources must be sufficient to support the ongoing professional development of the faculty;
- 7.3 Administrative personnel and technical staff must be adequate to meet the program's needs;
- 7.4 Financial resources must be sufficient to acquire, maintain, and operate the facilities, infrastructure, and equipment appropriate for the program to support educational needs.

Criterion 8: Discipline-based Criteria

This criterion assesses whether the program satisfies the criteria stipulated specifically for each discipline, where: all courses and faculty qualifications must be consistent with the respective disciplines; and if a program encompasses multiple disciplines, it must satisfy the criteria of all respective disciplines.

Criterion 9: Continuous Improvement

The program must institutionalize a process to assess and evaluate the extent to which the student outcomes are being attained and demonstrate that the results of such evaluations are being systematically utilized as input for the continuous improvement of the program:

- 9.1 demonstrate in a consistent manner that students have attained the graduate attributes by graduation;
- 9.2 demonstrate in a consistent manner that planning and implementation of the curriculum must correlate the development of the industry and prepare students to culminate the learned knowledge and skills in engineering practice;
- 9.3 demonstrate in a consistent manner that continuous improvements are attained in other areas.

C. Accreditation Policies and Procedures

In According with IEET “Policies for Accreditation of Programs” and “Procedures for Accreditation of Programs” established by the Accreditation Council, the following summarizes IEET’s general procedures and process for accreditation.

1. A program seeking accreditation must officially submit a complete request for review with IEET. Upon acceptance by IEET, the program shall submit a Self-study Report to be reviewed by the accreditation team.
2. An accreditation team appointed by the Engineering Accreditation Commission (EAC), under the Accreditation Council, is responsible for reviewing the Self-study Report, conducting on-site visit, preparing the Accreditation Statement (statement of findings from on-site visit) and making recommendation on the Accreditation Action for the accrediting program. The accreditation team consists of one team chair, and one to four program evaluators. In principle, one of the evaluators should be from industry.
3. The Accreditation Actions are the term of accreditation condition for programs, to be accredited or not, and length of time. Accreditation Actions are subject to the decision of Engineering Accreditation Commission and must be approved by the Accreditation Council.
4. With the decision from the Accreditation Council, Accreditation Statement and the Accreditation Action are then issued to the accrediting program and its affiliated institution.
5. There are three possible outcomes for Accreditation Action namely “Accredited,” “Pending for Accreditation Action,” and “Not to be Accredited.” Under the “Accredited” action, there are four subset which set the length of the accreditation period. “Next General Review (6 years)”, “Interim review- 3 years”, “Interim Review- 1 year”, and “Provisionally Accredited”. This concluded the general process of accreditation unless;
6. Any program seeking accreditation received a “Not to Accredited” decision may appeal to the AC’s Appeal and Review Committee (ARC).

Attachment 3

The Curriculum Requirements Eligible for Examination of Professional Engineer Within Chinese Taipei

A. Preface

To be eligible as local Professional Engineers in the Chinese Taipei, applicants shall, by law, participate and pass the Qualification Examination for Professional Engineer, which is conducted by the Ministry of Examination of the Examination Yuan once a year. The participants are generally limited to the graduates of faculties of engineering or universities, who have successfully completed such basic science courses as general physics, chemistry; general mathematics, calculus; differential equations; etc. In addition, they shall have successfully completed certain minimum required engineering courses in their applied disciplines, as prescribed in the following sections by The Ministry of Examination.

B. Required engineering courses in their applied disciplines for Candidates for Sitting for the Examination

The candidates, who shall be qualified for sitting for the examination, shall hold diplomas in their respective applied disciplines, and shall successfully complete the basic science courses as mentioned in the first paragraph, and at least seven (7) courses required for each discipline as prescribed by the Ministry of Examination.

1. Civil Engineer

Having taken at least seven of the following courses: mechanics of materials, structure behavior (engineering mechanics), or engineering mechanics; theory of structure; surveying; soil mechanics; engineering materials, mechanical materials, civil engineering materials, or architectural structure and materials; engineering geology; hydraulic engineering; transportation engineering; RC engineering, RC, RC design, or behavior of RC members; prestressed concrete engineering, prestressed concrete design, or prestressed concrete; steel structure engineering, steel structural design, or steel structure drawing; foundation engineering; bridge engineering, bridge design, or road bridge; road engineering; harbor engineering; tunneling; quantity survey or construction and assessment; construction equipment or construction quantity survey and equipment; building construction; coastal engineering; structural analysis; structural design; engineering survey;

construction method or civil engineering construction method; construction management or construction and engineering management; geotechnics; and engineering management. Each course may count for a maximum of three credits and a total of at least 20 credits must be completed. The required seven courses must include theory of structure, surveying, soil mechanics, and engineering materials. Documents proving the completion of the courses and credits granted are required.

2. Structural Engineer

Having taken at least seven of the following courses: mechanics of materials, structure behavior (engineering mechanics), or engineering mechanics; theory of structure; RC design, RC engineering, RC, or behavior of RC members; soil mechanics; engineering geology; structural dynamics; prestressed concrete design, prestressed concrete engineering, or prestressed concrete; steel structural design, steel structure engineering, or steel structure drawing; plastic design of steel structures; house structural design or building structural design; bridge design, bridge engineering, or road bridge; foundation engineering; basic design; special concrete structural design; matrix structural analysis or advanced theory of structure; earthquake engineering; plate and shell design; finite element method; hydrotech structural design; and structural dynamics analysis and aseismic design. Each course may count for a maximum of three credits and a total of at least 20 credits must be completed. The required seven courses must include foundation engineering, theory of structure, structural dynamics, and matrix structural analysis. Documents proving the completion of the courses and credits granted are required.

3. Geotechnical Engineer

Having taken at least seven of the following courses: geotechnics; soil mechanics; foundation engineering; engineering geology; mechanics of materials or engineering mechanics; reinforced concrete, RC design, RC engineering, or behavior of RC members; rock mechanics; slope side engineering or slope stability; construction method or civil engineering construction; tunneling; site investigation; soil dynamics; earthquake engineering; basic design and construction; structural geology; geophysical exploration; highway engineering; dam engineering; surveying; water and soil conservation; engineering materials; underground water and percolation; and ground improvement. Each course may count for a maximum of three credits and a total of at least 20 credits must be completed. The required seven courses must include mechanics of materials, soil

mechanics, foundation engineering, and engineering geology. Documents proving the completion of the courses and credits granted are required.

4. Electrical Engineer

Having taken at least seven of the following courses: circuitry; electronics; electromagnetism; electronic instrumentation; electric machinery; electrical engineering design; control system, power control system, or automatic control system; control engineering; electronic engineering materials; power generation; power plant facility; power system; electronic engineering principles or electrical engineering; automatic control; computer engineering, introduction to computers, or introduction to electronic computer; linear system or linear systematic analysis; high voltage engineering; transmission and distribution; electronic engineering mathematics; industrial power distribution or transmission and distribution; power electronics; and engineering mathematics. Each course may count for a maximum of three credits and a total of at least 20 credits must be completed. The required seven courses must include circuitry, power system or transmission and distribution, electric machinery, control system, and electronics. Documents proving the completion of the courses and credits granted are required.

5. Environmental Engineer

Having taken at least one course for each of the following seven fields. Each course may count for a maximum of three credits and a total of at least 20 credits must be completed. The required seven courses must include air pollution (introduction, engineering, prevention, or control), sewage treatment engineering (sewerage engineering), solid waste (solid waste treatment, waste disposal, solid waste pollution, and waste disposal and design, or garbage and waste disposal), or environmental engineering (for six credits). Documents proving the completion of the courses and credits granted are required.

- (1) Environmental management: environmental engineering (introduction), environmental sanitation, environmental planning (introduction or management), environmental systematic analysis, EIA, environmental economics, pollution prevention, industrial waste reduction, regulations on environmental protection, and environmental ecology.
- (2) Environmental sciences: environmental chemistry, environmental engineering chemistry, environmental microbiology, microbiology for environmental engineering, soil chemistry, environmental soil science, and environmental toxicology.
- (3) Water and sewage treatment engineering: sewage treatment engineering,

- sewerage engineering, sanitation engineering, water supply engineering, tap water engineering, water and wastewater treatment, water treatment (works), wastewater treatment (works), water treatment and design, environmental engineering unit operation, river pollution, water quality management, water pollution, water pollution prevention (works), industrial wastewater (works, treatment), underground water pollution prevention, and soil and underground water pollution treatment.
- (4) Water and wastewater treatment design: water supply engineering design, tap water engineering design, sanitation engineering design, sewage treatment engineering design, sewerage engineering design, water supply and drainage facility, water treatment engineering and design, fluid mechanics, hydrology, and hydrologic engineering.
 - (5) Air and noise control engineering: air pollution (introduction, engineering, prevention, or control), noise and vibration (prevention or control), environmental noise, noise pollution, noise detection and prevention, and noise prevention engineering
 - (6) Waste engineering: solid waste (treatment), waste disposal, solid waste pollution, waste disposal and design, garbage and waste disposal, hazardous waste (treatment or management), hazardous substance treatment and management, waste disposal and recovery, resource recycling and waste disposal, resource recycling (engineering or management), soil remediation, and soil pollution (prevention or mitigation)
 - (7) Environmental analysis and experiment: water and wastewater analysis, water analysis, water quality analysis (experiment), environmental (pollutant) analysis, pollution monitoring and analysis, environmental chemistry experiment, environmental engineering experiment, environmental engineering unit operation experiment, and air pollutant (sampling) analysis.

6. Hydraulic Engineer

Having taken at least seven of the following courses: fluid mechanics; hydrology; hydraulic engineering; harbor and river engineering; flood control; harbor engineering; coastal engineering; irrigation and drainage engineering; mechanics of materials or engineering mechanics; RC, RC design, RC engineering, or behavior of RC members; theory of structure; surveying; engineering geology; wave mechanics; hydroelectricity; underground water; water supply and wastewater treatment engineering; fluid mechanics lab; hydrotech structural design; barrage engineering; soil and water conservation engineering; water resources and planning; channel hydraulics; soil mechanics; ocean engineering

and ocean wave engineering; hydrology and hydrologic analysis; water resources engineering and planning; geotechnics; irrigation engineering; drainage engineering; and farm irrigation. Each course may count for a maximum of three credits and a total of at least 20 credits must be completed. The required seven courses must include wave mechanics, fluid mechanics, hydrology, and fluid mechanics lab. Documents proving the completion of the courses and credits granted are required.

7. Mechanical Engineer

Having taken at least six of the following courses: engineering mechanics, applied mechanics, or mechanics of materials; fluid mechanics, aerodynamics, or engineering fluid mechanics; thermodynamics or heat transfer; mechanism; heat engine or internal combustion engine; tools, tool design, moulds, cutting, or machining; turbine, marine engineering, combustion gas turbine, or engine and turbine; machine building, casting, machine factory internship, or welding engineering; heat treatment; plastic working; fluid machinery; mechanical materials or engineering materials; machine design, machine design principles, machine design practice, or mechanical drawing; automatic control, numerical control machine, system dynamics and control, linear control system, or introduction to control system; pneumatics and hydraulics; machinery dynamics or vibration; electrical engineering or electronic engineering principles; refrigeration and air conditioning; and mechanical engineering. Each course may count for a maximum of three credits and a total of at least 18 credits must be completed. Documents proving the completion of the courses and credits granted are required.

8. Soil and Water Conservation Engineer

Having taken at least seven of the following courses: soil and water conservation engineering or water and soil conservation, fluid mechanics, channel hydraulics, meteorology or applied meteorology, hydrology, foundation engineering, environmentally friendly farming practices, vegetation engineering, surveying, watershed management, sabo works, engineering mechanics, theory of structure, soil mechanics, soil science, soil physics, flood control, soil erosion, slopeland irrigation and drainage, engineering geology, quantity survey or construction and assessment, collapsed area treatment or collapsed mountain control, and water resources engineering. Each course may count for a maximum of three credits and a total of at least 20 credits must be completed. The required seven courses must include soil and water conservation engineering, fluid mechanics, and hydrology. Documents proving the completion of the courses and credits granted are required.

9. Surveying Engineer

Having taken at least one course for each of the following seven fields. Each course may count for a maximum of three credits and a total of at least 20 credits must be completed. Documents proving the completion of the courses and credits granted are required.

- (1) Plane survey: plane survey (including internship) or surveying (including internship).
- (2) Survey adjustment: survey adjustment or survey adjustment.
- (3) Geodetic survey: geodetic survey (including internship), satellite geodetic survey, and physical geodetic survey.
- (4) Aerial survey and remote sensing: aerial survey or aerial photogrammetry, aerial survey and analysis, digital aerial survey, numerical photogrammetry, remote sensing or remote sensing, and environmental remote sensing.
- (5) Geography information system, cartography, or regulations on surveying: geography information system, land information system, geospatial information system, national geographic information system, cartography, map projection, cartographic compilation, land act, regulations on cadastral surveying, and survey engineering management.
- (6) Satellite survey: satellite survey, satellite positioning survey, GPS, and advanced satellite survey.
- (7) Applied surveying: engineering surveying, topographic survey, mine surveying, cadastral surveying or land surveying, urban plan surveying, hydrographic survey, woodland survey, tunnel survey, and survey engineering.

10. Applied Geological Engineer

Having taken at least seven of the following courses: general geology or geology, structural geology, field geology, ore deposit, petrology, geophysics, geochemical exploration, petroleum geology, engineering geology, geomorphology, stratigraphy, paleogeology, seismology, geophysical exploration, geological survey, soil mechanics, rock mechanics, environmental geology, hydrogeology, economic geology, resource exploration, geochemistry, and geotechnics. Each course may count for a maximum of three credits and a total of at least 20 credits must be completed. Documents proving the completion of the courses and credits granted are required.

Attachment 4

Examination of Professional Engineer Held by the Examination Yuan

A. Preface

To be eligible as local Professional Engineers in the Chinese Taipei, applicants shall, by law, participate and pass the Qualification Examination for Professional Engineer, which is conducted by the Ministry of Examination of the Examination Yuan. The Ministry of Examination belongs to the Examination Yuan, entirely independent from the Ministry of Education, and is solely in charge of administrating various examinations for qualifying those professionals or public servants prior to registering with or serving in government organizations. The participants are generally limited to the graduates of faculties of engineering or universities, who have successfully completed such basic science courses. and certain minimum required engineering courses in their applied disciplines, as prescribed in Attachment 3.

B. Subjects of the Qualification Examination

The Examination Subjects respectively for Civil, Structural, Geotechnical, Electrical, Environmental, Hydraulic, Mechanical, Soil and Water Conservation, Surveying, as well we Applied Geological disciplines are indicated in Table 4-1.

Table 4-1 Subjects Covered in the Professional Qualification Examination

Disciplines	Subjects
Civil Engineer	1. 1. Structural analysis (including mechanics of material and theory of structure) 2. Structural design (including design of reinforced concrete and steel structural design) 3. Geotechnics (including soil mechanics, foundation engineering and engineering geology) 4. Engineering survey (including plane survey and construction survey)

Disciplines	Subjects
	5. Construction method (including civil engineering, construction method and engineering material) 6. Construction management
Structural Engineer	1. Mechanics of material 2. Theory of structure 3. Design of reinforced concrete and design of prestressed concrete 4. Steel structural design 5. Soil mechanics and basic design 6. Structural dynamics analysis and aseismatic design
Geotechnical Engineer	1. Soil mechanics (including soil dynamics) 2. Foundation engineering and design (including excavation engineering and related foundation structure design) 3. Engineering geology and site investigation 4. Hillside works (including soil and water conservation engineering) 5. Rock mechanics and tunneling 6. Geotechnical engineering
Electrical Engineer	1. Electronics (including power electronics) 2. Circuitry 3. Engineering mathematics (including linear algebra, differential equation, complex function and probability) 4. Electric machinery 5. Power system 6. Industrial power distribution
Environmental Engineer	1. Fluid mechanics and hydrology 2. Environmental chemistry and Environmental microbiology 3. Water supply engineering and sewage works 4. Waste engineering 5. Air pollution and noise control engineering 6. Environmental planning and management
Hydraulic Engineer	1. Fluid mechanics

Disciplines	Subjects
	<ol style="list-style-type: none"> 2. Hydrology 3. Water resources engineering and planning 4. Geotechnics (including soil mechanics, foundation engineering and engineering geology) 5. Channel hydraulics 6. Hydraulic engineering (including coastal engineering, flood control and drainage engineering)
Mechanical Engineer	<ol style="list-style-type: none"> 1. Thermodynamics and heat transfer (including heat engine) 2. Electrical engineering (including electric machinery) 3. Fluid mechanics and fluid machinery 4. Mechanism and machine design 5. Engineering mechanics (including statics, dynamics and mechanics of material) 6. Machine building 7.
Soil and Water Conservation Engineer	<ol style="list-style-type: none"> 1. Soil physics and erosion 2. Hill slope hydrology 3. Surveying (including plane survey, topographic surveying and aerial photo interpretation) 4. Soil and water conservation engineering 5. Vegetation engineering 6. Soil and water conservation planning (including regulations on water and soil conservation) i.
Surveying Engineer	<ol style="list-style-type: none"> 1. Geography information system 2. Least squares adjustment 3. Plane survey 4. Cartography 5. Geodetic survey 6. Aerial survey 7.
Applied Geological Engineer	<ol style="list-style-type: none"> 1. General geology (including environmental geology) 2. Geotechnics (including soil mechanics and rock mechanics) 3. Engineering geology (including hydrogeology) 4. Mineralogy and petrology (including economic geology) 5. Stratigraphy and structural geology 6. Geological survey (including geophysical exploration)

C. Obtaining Professional Practice Licenses or Registering as Principal Engineers

After passing the Qualification Examination held by the Ministry of Examination, the applicants will obtain Examination Passing Certificates, and then may apply with an evidential document demonstrating to have at least two (2) years of actual practicing experience to the regulatory agency in charge of professional engineers at the central government level for obtaining (i) the Professional Practice License for working in a consulting firm or operating their own professional engineer offices or (ii) registering as a Principal Engineers working with construction firms.

After obtaining the Professional Practice License, or registering as Principal Engineers, the applicant will be considered eligible for practice independently.

A set of laws and regulations governing qualification, registration, practicing and conduct of local professional engineers in the Chinese Taipei are available from Websites of the Ministry of Examination (<https://www.moex.gov.tw>), and The Public Construction Commission (<https://www.pcc.gov.tw>)

Attachment 5

Assessment Criteria of Practical Experience

A. Purpose of Assessment

The purpose for the assessment of practical experience of applicants is to evaluate whether they have practiced in broad areas of engineering theory application, management, communication and social implications of engineering and such a practice shall be required to carry out in competent, independent, and ethical manner. Furthermore, they shall also demonstrate in their application documents that they have, through practice, acquired professional skills and sound engineering judgment in addition to their educational qualifications.

B. Assessment Criteria and Competent Levels

For assessment, the applicant shall prepare segments of narrative description of the particular engineering experience he claimed, for inclusion into the application documents for submittal to the Committee. Each of the aforesaid segments of engineering experience is defined as an Experience Unit, which shall be designated either as the Compulsory Units or the Elective Units as required by Application Forms enclosed hereunder.

The competent levels required for each of the Experience Units are specified in terms of “observable” or “qualitative performance” as listed in the following Tables 1 and 2, with its corresponding code number indicated. Based on these performance levels, the practice experience claimed and submitted by the applicants will be assessed and judged for acceptance or rejection.

C. Compulsory Units

Table 5-1 lists specifics of the following two Compulsory Units, which must be all addressed.

1. A minimum of 7-year experience after leaving school, and
2. At least 2 years out of the 7-year experience, being responsible for significant engineering work, among which one Unit of competent levels shall be selected and claimed by the applicant for application.

Table 5-1 Requirements for Compulsory Units of Experience

Minimum Years of Experience	Applied Criteria Code No.	Competent Levels
Seven years of working experience after graduated from school	C-1-a	Had full 7-year practical experience in related engineering fields since graduation from school by the time of submittal of the application.
At least 2 years out of 7 years responsible of significant engineering work	At least one of the following Units of the competent level is selected and claimed.	
	C-2-a	Planned, designed, coordinated and executed a small project
	C-2-b	Undertook part of a larger project based on an understanding of the whole project
	C-2-c	Undertook novel, complex and/or multi-disciplinary work
	C-2-d	Project management or construction supervision

D. Elective Units

Table 5-2 lists specifics of the following 6 engineering fields, and against each of which, multiple Units of acceptable performance levels are indicated. The applicant shall, at least, select 3 Units from these Units (Regardless of engineering fields) from his 7-year experience for supporting his/her experience claimed.

1. Planning or design
2. Project Management or Construction Supervision
3. Contribution to Engineering Practice
4. Research and Development
5. Contribution to Public Work Sector
6. Promotion of Engineering Profession

The experience of applicants shall be deemed professionally competent, and qualified, if the performance of their experience is assessed to be meeting the acceptable levels specified in Table 4-2.

Table 5-2 Requirements for Elective Units of Experience

Fields Claimed	Code No.	Units of Acceptable Competent Levels
Planning or design	O-1-a	Performed good planning or design with outcomes and cost estimate meeting requirements of clients
	O-1-b	Developed or adopted effective solutions for resolving technical problems encountered during planning or design
	O-1-c	Selected or adopted sound technical assumptions, data, or parameters for carrying out accurate, competent or cost effective planning or design
	O-1-d	Executed a control process for checking or controlling planning or design, including later design modifications
Project Management or Construction Supervision	O-2-a	Established and performed effective programs at site for controlling the construction qualities intended for the project, and for maintaining effectively the job-site safety
	O-2-b	Identified risks involved in the project construction with associated impacts, and carried out the risk mitigation plan
	O-2-c	Controlled strictly construction schedule, or adopted schedule acceleration measures for avoiding schedule slips

Fields Claimed	Code No.	Units of Acceptable Competent Levels
Contribution to Engineering Practice	O-3-a	Developed or applied innovation, new concept, new principles, new codes, standards or practice in engineering practice
	O-3-b	Developed and acquired patent rights for new concept, new methods, and new products during implementation of the project
Research and Development	O-4-a	Carried out or joined research and development programs sponsored by private or public sectors with outcome applied for upgrade of engineering practice
	O-4-b	Acquired patent right as an outcome of the research and development program
Contribution to Public Work Sectors	O-5-a	Joined public hearings for help develop or establish governmental policies regarding public work
	O-5-b	Advocated on behalf of engineering associations to influence the decisions that have engineering implication
	O-5-c	Served as committee members or task force panelists for government for resolving engineering related problems, assessments, or arguments
Promotion of Engineering Profession	O-6-a	Advocated innovative engineering solutions
	O-6-b	Led and promoted ethical decisions
	O-6-c	Led and managed multi-disciplined team for close cooperation for completion of the work
	O-6-d	Sought or established engineering business opportunities
	O-6-e	Established or operated a larger consulting firms

E. Application Forms

The Application Forms as mentioned hereunder are attached for use by the applicants for completing their application documents.

Applicants shall note the followings, when the Forms are filled out for preparation of their application documents:

1. There are three (3) forms (Form 3, 4, and 5) required for submittal by each applicant for demonstrating his/her practical experience.
2. Application Form 3 is used for a narrative engineering practice description for all engineering experience of applicant gained in the full 7-years prior to the date of his/her submittal of application documents.
3. Application Forms 4 and 5 describe the particular segments of the experiences selected among the 7-year experience for claiming competent of the applicant's experience.
4. Forms 3 and 4 shall be used for demonstrating 2 Compulsory Unit of the experience required as shown in Table 5-1, and Application Form 5 shall be used for demonstrating at least three (3) Elective Units of the experiences required as shown in Table 5-2. These Application Forms shall be all prepared and submitted; otherwise, their application will be considered incomplete and will not be assessed. In Forms 4 and 5, the applicant shall describe in details of his/her: (i) Personal contribution and responsibilities; (ii) Problems have been faced; (iii) Solution found; (iv) Engineering judgments made; and (v) Impact generated by such solution and judgments, for supporting the competency claimed.
5. When filling out the application Forms, applicants shall quote the claimed code numbers in their statements.
6. Experience of applicants described shall be arranged in a time sequence, with the most recent ones first, with claimed facts described as detailed as possible.

7. The Experience Units defined in the Application Forms should be basically limited to those of full-time employment only. However, part-time practical experiences may also be included and demonstrated for the PRT to understand the experience actually gained by the applicant. Should the PRT considers adequate and desirable at its own discrete, the PRT may also take the part-time experience into evaluation of competency of the applicant.
8. In addition to signature of the applicant, the top management person of the organization, which the applicant worked with, or direct supervisors of the applicants work mentioned in the statements shall also put their signatures on the Forms to certify correctness of the descriptions made in the statements by the applicant.
9. The above-mentioned signatory persons shall be legally responsible for true and correctness of the statements made in the Forms.

Attachment 6

Criteria of Continuing Professional Development

For the Continuing Professional Development (CPD), the Committee proposes the following credit-hours system as a basis for assessment of the continuing professional training undertaken by applicants.

The continuing professional training activities will be classified, according to various sponsors, into Categories I, II, and III as shown in the 3 tables attached hereunder: Table 6-1 shows Category I of the training activities sponsored, entrusted, authorized or recognized by the Central Government Agency in charge of control and administration of local professionals; Table 6-2 shows Category II of the training activities sponsored, co-sponsored, authorized, or recognized by the Committee. Table 6-3 shows Category III of the training activities sponsored by the agencies other than those of the aforesaid two categories.

The Category I and III CPD credit-hours could be exclusively counted as Category II, if and only if the activities are held by CIE or the member associations of the professional engineers.

1. For Application as an APEC Engineer:

Within two years prior to the date of submittal of the application, the total credit-hours of CPD required for each of applicants shall be not less than 50, in which the credit-hours belonging to Category I shall not be less than 15. For every additional discipline applied, the extra credit-hour of CPD activities required is 25, among which, however, Types D, G, H, and I in Category III shall not be accounted for.

2. For Renewal of APEC Engineer Register:

APEC Engineer Register shall be renewed annually, and the CPD credit-hours shall be reviewed every four (4) years. The total CPD credit-hours required for each applicant shall be not less than 180, of which Categories I and II shall be not less than 55 and 25 respectively. For every additional discipline to be renewed, the extra credit-hour of CPD activities required is 100, among which, however, Types D, G, H, and I in Category III shall not be accounted for.

The credit-hours obtainable by the applicants shall be as shown in Tables 6-1,

6-2 and 6-3, if they have participated in each of the training activities and receipt of certificate or valid evidence duly issued by the activity sponsors. The applicants shall fill out Form 6 Summary of CPD claimed, and attached with relevant copies of the certificates or valid evidences of attendance of the activities for review by the Committee.

The Committee reserves the rights to review the details of the training activities of Category III for ensuring the levels of their training being acceptable. The details may include, such as handout materials, substantial contents of such activities, qualification of instructors, number of attendants, place and date for holding the activities, etc. Based on these review results, such CPD activities of Category III sponsored by other organizations may not be acceptable.

For APEC Engineers working in a foreign country, credit-hours can be recognized with evidence from attending training activities held in that country. Those who have obtained evidence for credit-hours from attending general training activities will be considered as Category III, and those who have obtained evidence for credit-hours from attending activities sponsored by the APEC Engineer Monitoring Committee of the hosting country will be recognized as Category II. The training activities sponsored, entrusted, authorized or recognized by the Central Government Agency (the government offices with engineering projects or management) in that country will be recognized as Category I.

3. If over half of the time in the two (2) years period prior to first-time application or the four years period prior to registration renewal were spent overseas (evidence is needed), the requirements on CPD credit-hours shall be amended as follows:
 - (1) For first-time application, the requirement of “the CPD credit-hours of Category I shall not be less than 15” is waived. But total CPD credit-hours shall still be not less than 50.
 - (2) For registration renewal, the requirement of “the CPD credit-hours of Category I and Category II shall not be less than 55 and 25 respectively” is waived. But the total CPD credit-hours shall still be not less than 180.

Table 6-1 Credit-hours of Category I CPD Activities

Activities	Ways of Participation	Domestic/ International	Credit- hours	Maximum Credit-hours Limited	Remark
Type A Seminars; Conferences; Workshops or Special Topic Lectures (Professional Training Programs)	As Participant	Domestic	1/Actual Hour	None	Verified by Certificate
		International	3/Actual Hour		
	As Presenter	Domestic	5/Actual Hour	None	If more than one, then shared equally by Co-Authors or Co-Translators
		International	20/Actual Hour		
	As Lecturer	Domestic	10/Actual Hour	None	
		International	30/Actual Hour		
Type B Published in Professional or Academic Periodicals or Translated Works Published thereon	As Author	Domestic	10/Per Article	None	
		International	30/Per Article		
	As Translator	Domestic	4/Per Article	None	
Type C On-job Training or Continuing Education in Graduate Programs Accredited by IJET	As Participant	Both	3/Actual Hour or as Computed	None	Minimum 10 hours of lecture for 1 credit; Transcripts or Records to be submitted for assessment.
	As Lecturer	Both	5/Actual Hour; or as Computed	None	

Table 6-2 Credit-hours of Category II CPD Activities

Activities	Ways of Participation	Domestic/ International	Credit- hours	Maximum Credit-hours Limited	Remark
Type A Participation in local or International Committee or Society	As a member of committee or in leadership positions	Domestic	10/Each Appointment	Maximum for this category is 30	Verified by Letters/ Certificate
		International	20/Each Appointment		
Type B Professional Training Programs; Accredited Lectures, Seminars, Conferences; Workshops or Special Topic Lectures	As Participant	Domestic	1/Actual Hour	None	If more than one, then shared equally by Co-Authors or Co-Translators
		International	3/Actual Hour		
	As Presenter/ Lecturer	Domestic	10/Actual Hour	None	
		International	30/Actual Hour		
Type C Technical Investigation or Assistance	As team members or participants	Both	5/Per Event or project	None	
	As principal investigator/l eader	Both	10/Per Event or project	None	

** APEC Engineers working in a foreign country and attending Continuing Professional Development training activities sponsored by a professional engineer organization of that country, the credit-hours obtained will be recognized.*

Table 6-3 Credit-hours of Category III CPD Activities

Activities	Ways of Participation	Domestic/ International	Credit- hours	Maximum Credit-hours Limited	Remark	
Type A Seminars; Conferences; Workshops or Special Topic Lectures (Professional Training Programs)	As Participant	Domestic	1/Actual Hour	None	Verified by Certificate	
		International	3/Actual Hour			
	As Presenter	Domestic	5/Actual Hour	None	If more than one, then shared equally by Co-Authors or Co-Translators	
		International	20/Actual Hour			
	As Lecturer	Domestic	10/Actual Hour	None		
		International	30/Actual Hour			
Type B Published in Professional or Academic Periodicals or Translated Works Published thereon	As Author	Domestic	10/Per Article	None		If more than one, then shared equally by Co-Authors or Co-Translators
		International	30/Per Article			
	As Translator	Domestic	4/Per Article	None		
Type C On- job Training; or Continuing Education in Graduate Programs Accredited by IEET	As Participant	Both	3/Actual Hours or as Computed	None	Minimum 10 hours of lecture for 1 credit; Transcripts or Records submitted for assessment.	
	As Lecturer	Both	5/Actual Hours or as Computed	None		

Activities	Ways of Participation	Domestic/ International	Credit- hours	Maximum Credit-hours Limited	Remark
Type D Services for Professional or Academic Associations	Active participation on a committee or holding an office in a professional or technical society	Both	5/Each Appointment/ year	Maximum for this category is 20	e.g. Participating IEET education accreditation to engineering programs
Type E Engineering patents registered during the year	As Patentee	Both	50 /Per Patent	None	If more than one, equally shared by Patentees
Type F Contribution to relevant engineering theory, practice or management Skill or method	Conduct accredited lectures, seminars, conferences or training courses	Both	4/for each lecture hour or part thereof	20/ Per Year	If more than one person, shared equally by contributors
Type G Review of Professional Papers/books	As Reviewer	Domestic	2 /Per Paper	6/ Per Year	
		International	5 /Per Paper	10/ Per Year	
Type H Informal In-house training and discussion	Technical Discussion Meeting within the Workplace	Both	1/for every 2 hours	Maximum CPD Credit Hour for Type H & I is 4/ Per Year	Technical solution is found
Type I Professional Membership	As Participant	Both	2/ organization		Membership certificate

Activities	Ways of Participation	Domestic/ International	Credit- hours	Maximum Credit-hours Limited	Remark
Type J Self-Study	With Referenced Papers, Magazines or Books	Both	5/per referenced	20/ Per year	Self-study report per referenced

** APEC Engineers working in a foreign country and attend Continuing Professional Development training activities sponsored by a professional engineer organization of that country, the credit-hours obtained will be recognized.*

Attachment 7

Codes of Ethics for Chinese Taipei APEC Engineers

After admitted into the registry, the Chinese Taipei APEC Engineers are committed to adhere to the fundamental principles of their respective profession guided by the norm of conduct consistent with following Code of Principles and Ethics. The Tenets of this Code are:

1. Responsibilities to the Society

1.1 Dedicate and Adhere to the Law: comply with all laws and regulations, to ensure public safety and health, and to enhance public welfare.

1.2 Respect Nature: maintain ecological balance, treasure all natural resources and conserve the cultural heritage.

2. Responsibilities to the Profession

2.1 Commit to Professionalism and Duty: consistently apply professional knowledge, adopt good standing engineering practices, and fulfill professional duty.

2.2 Be Creative and Enterprise: acquire the latest technological knowledge, strive to improve skills and raise the standards of product quality.

3. Responsibilities to the Client

3.1 Render Services with Sincerity: serve with all competency and talent, protect with professional attention the interests of the Client and achieve each project's goals.

3.2 Faithfully Seek Mutual Benefits: establish mutual trust, secure a win-win consensus and create great engineering accomplishments.

4. Responsibilities to the Colleagues

4.1 Cooperate with Specialists in Other Fields: strive to carry out the work within professional capacity, emphasize coordination and cooperation and improve efficiency of execution.

4.2 Ensure the Continuity of the Professional Contributions: dedicate to self-encouragement and mutual strengthening for advancement of engineering practice, pass on technical experiences to and encourage younger professionals.

I declare to obey and be bound by the above Codes.

Signed: _____

Date: _____

Attachment 8

Application Guidelines

Table of Contents

1. Preface
2. Definition of APEC Engineer
3. Qualification Required as an APEC Engineer
4. Documents to be prepared by an Applicant
5. Assessment Procedure
6. Registration Procedure
7. Assessment for Renewal of Registration
8. Auditing
9. Fee Schedule
10. Appeal Panel
11. Contacts

1. Preface

Under the Asia-Pacific Economic Cooperation (APEC), the APEC Engineer Coordinating Committee was established in 1999 for maintenance and development of authoritative and reliable decentralized registration of APEC Engineers, and for promotion of the acceptance of APEC Engineers in all participating economies. As a counter part to the Coordinating Committee, each participating economy is also required to organize and establish, when participating as a member, an APEC Engineer Monitoring Committee in its own economy. The Monitoring Committee will be vested with authority to assess and approve the registration of the APEC Engineers within its own economy according to the Assessment Statement, which has been accepted by the Coordinating Committee, when applied for admission as a member of the Coordinating Committee of APEC Engineer. The assessment operation shall be further subject to monitor by the Coordinating Committee in the manner stipulated in the Manual of the APEC Engineer.

Following the requirements prescribed in the APEC Engineer Manual, both the Central Government (the Government) in charge of registration of local professional engineers in the Chinese Taipei, and the Chinese Institute of Engineers (the CIE) have jointly appointed 24 members and two supervisors to establish the Chinese Taipei APEC Engineer Monitoring Committee (the Committee). These members of the Committee are nominated from universities, experts, professionals associations, industrials and relevant government agencies.

The Committee was established on 24 March 2005 as the sole non-governmental body to undertake the assessment and registration of APEC Engineers within the Chinese Taipei in accordance with the APEC Engineer Manual.

The mechanisms for assessment of the eligibility and competency of APEC Engineers shall comply fully with the criteria prescribed in the Assessment Statement, which has been prepared based on the APEC Engineer Manual, and accepted by the Coordinating Committee.

These Guidelines define and explain the required qualifications of applicants; mechanism, evaluation criteria and processes of assessment; information to be provided by applicants; procedures for renewal of registration; and some other details related to submittal of application by applicants in the Chinese Taipei.

These Guidelines are mostly generic in nature applicable for all engineering disciplines with particular terms to be specifically added, where necessary, for Civil Engineering, Structural Engineering, Geotechnical Engineering, Electrical Engineering, Environmental Engineering, Hydraulic Engineering, Mechanical Engineering, Soil and Water Conservation, Surveying, as well as Applied Geology, which are intended by the Committee for application of assessment at present.

These Guidelines will be subject to revision or amendment from time to time, when required, and as soon as revised or amended, new edition will be issued by, or posted on web-site of the Committee for use of the applicants accordingly.

2. Definition of APEC Engineer

According to the APEC Engineer Manual, APEC Engineer is defined as a professional, who has applied and demonstrated to the Committee with his/her application and qualification fully satisfying the procedures and criteria prescribed in this Assessment Statement, and has been assessed and accepted by the Committee. After acceptance, the applicants shall be listed on the Registration of APEC Engineers of the Monitoring Committee, and further reported to the Coordinating Committee for inclusion in the Overall APEC Engineer Registry.

After bi-lateral or multi-lateral negotiation is further completed, and relevant agreements are signed among participating economies, the registered APEC Engineers are able to provide their professional services across the boundaries of these agreement-signed economies.

3. Qualification Required as an APEC Engineer

In order to be qualified, applicants shall satisfy the criteria listed hereunder:

The applicant shall have;

- (1) Completed an accredited or recognized engineering program, as stipulated in Part B.1;
- (2) Been assessed within their own economy as eligible for independent practice as stipulated in Attachment 5 enclosed;
- (3) Gained a minimum of seven (7) years of practical experience since graduation as stipulated in Attachment 5 enclosed;
- (4) Spent at least two (2) years out of the aforesaid seven (7) in responsible

charge of significant engineering work as stipulated in Attachment 5 enclosed;

- (5) Maintained the Continuing Professional Development at a satisfactory level as stipulated in Attachment 6 enclosed; and
- (6) Committed to observe and to be bound by the Codes of Ethics of the Chinese Taipei Monitoring Committee as stipulated in Attachment 7 enclosed.

4. Documents to be prepared by an Applicant

Seven (7) Application Forms as prescribed and attached hereunder shall be all filled out and submitted by applicant to the Committee for review and assessment.

The details and requirements regarding each Application Form are further elaborated as follows and the applicant is suggested to read them carefully together with the referred Attachments, when these Application Forms are filled out. The Application Documents shall be made in triple, each included with 7 Forms prescribed hereunder:

(1) Application Form 1: Self-Assessment for Application Submittal

This Form is self-explanatory.

(2) Application Form 2: Personal Information

This Form is self-explanatory.

(3) Application Form 3: General Engineering Experience Report

This Form is a narrative engineering practice description demonstrating actual engineering experience gained by the applicant at least 7-years by the date of his submittal of application documents. As to the Criteria of Units of Competent Level, please refer to Attachment 5.

(4) Application Form 4: Two (2) Years of Significant Experience

This Form describes particular segments of the two-year experience selected by the applicant from his 7-year experience for claiming to conform to the requirements of significant experience. As to the Criteria of Units of Competent Level, please refer to Attachment 5.

(5) Application Form 5: Three (3) Elective Experiences Claimed

This Form describes three segments of the Experience Units selected by the applicant from his 7-year experience for claiming to conform to the requirements set forth in the assessment. As to the Criteria of Units of Competent Level, please refer to Attachment 5.

(6) Application Form 6: Summary of CPD Activities Claimed

This Form is self-explanatory.

(7) Application Form 7: Codes of Ethics of Chinese Taipei APEC Engineer

Applicant shall sign on this Form to commit himself to obey the Codes.

The applicant shall also follow the remarks listed below for filling out the Forms:

- (1) Experience of the applicant described in each of Application Forms of 3, 4, and 5 shall be arranged in a reverse chronological order, with the most recent ones first, and described detailed as possible.
- (2) Each narration related to Forms 4 and 5 should be emphasized with the details, which have been closely related to applicant's:
 - a. Personal contribution and responsibilities
 - b. Problems faced
 - c. Solution found
 - d. Engineering judgments made
 - e. Impact generated by such solution and judgments, for supporting competence he/she claimed.
- (3) For the Application Forms of 3, 4, and 5, the applicant shall quote duly the claimed code numbers in the spaces provided.
- (4) The period of the experience indicated in the statements shall be limited to full-time employment.
- (5) In addition to signature of the applicant, the top management person of the organization, which the applicant worked with, or direct supervisors or colleagues of the applicants' work mentioned in the Application Forms of 3, 4, and 5, shall also put their signatures on the Forms to certify correctness of the descriptions made.

- (6) The above-mentioned signatory persons shall be legally responsible for true and correctness of the statements made by the applicant.

5. Assessment Procedure

The qualifications required for an APEC Engineer are mentioned above under Item 3 of the Guidelines. The Committee shall strictly follow the Guidelines for assessment of the qualifications of applicants. And each of the assessment criteria is briefly discussed as follows for reference of the applicant.

(1) Education of the Applicant

The following criteria are considered acceptable:

- a. If he/she has successfully completed his/her higher education program and obtained degree from a school outside of the Chinese Taipei, whose education programs have duly met any one of the requirements stipulated in the Manual of APEC Engineer; or
- b. If he/she has successfully completed his/her higher education program and obtained degree from schools in the Chinese Taipei, whose education programs have been duly accredited by the IEET; or
- c. If he/she has successfully completed his/her higher education program and obtained degree from a government-approved and registered public or private university, and fulfilled the curriculum requirements in alignment with that eligible for examination of professional engineer within Chinese Taipei. Refer to Attachment 3 for the curriculum requirements of different disciplines.
- d. If he/she, after graduated from an engineering college without obtaining a bachelor degree, has successfully obtained a post graduate degree (master's or higher degree) from a school which meets the requirements of any one of the five options listed in the APEC Engineer Manual or the above mentioned Criteria (a) to (c) prescribed by the Chinese Taipei.

The Education Background filled in under Application Form 2 by applicant shall be checked by the Preliminary Review Team (the PRT) to see whether the education program of the applicant is conformable to any of the aforesaid criteria.

If the applicant is graduated from overseas universities, a certificate shall be

attached accordingly to Application Form 2 as a proof.

The application shall be not accepted, if none of the above criteria is applicable.

(2) Applicant Eligible for Independent Practice

In the Application Form 2, the applicant shall duly indicate details of information regarding the Professional Qualification Examination and Professional Practical License he passed or obtained as prescribed in Attachment 4.

In case the applicant is not eligible for practice in Chinese Taipei, his/her application shall be rejected.

(3) Competence of Practical Experience of Applicant

Application Forms 3, 4, and 5 shall be initially reviewed by the PRT. If the submitted documents pass the review, he/she shall be informed by the PRT to participate an Interview. The applicant shall be, during the Interview, required to make a 20-minute presentation first, and then to answer questions raised by the PRT.

(4) Requirements of Continuing Professional Development

A continuing professional development (CPD) shall be always required for all APEC Engineers as stipulated in the Manual of APEC Engineer. Accordingly, an evaluation for such credit-hours shall be performed by the PRT as follows (also refer to Attachment 6):

a. For Application to become an APEC Engineer:

Within two years before submittal of the application for registry as an APEC Engineer, the total credit-hours of CPD required for each applicant shall be not less than 50, in which the credit-hours belonging to Category I shall be not less than 15.

b. For Renew of Registry of APEC Engineer:

APEC Engineer membership shall be renewed annually, and the CPD shall be reviewed every four years. The total credit-hours for each applicant shall be not less than 180, in which belonging to Categories I and II shall be not less than 55 and 25 respectively.

The credit-hours claimed shall be filled out in Application Form 6 attached herewith by the applicant and subject to assessment by the PRT in accordance with the requirements indicated in Attachment 6: Criteria of Continuing Professional Development.

(5) Commitment for Obey of Codes of Ethics

The Codes of Ethics for the Chinese Taipei as shown in Attachment 7 shall be read carefully and understood by the applicant. At the bottom of the page, the applicant shall fix his signature to commit obeying and to be bound by it.

Furthermore, the applicant shall commit that any matter that may affect his/her fitness for admission to, and the continued inclusion as the Chinese Taipei APEC Engineer shall inform the Committee as soon as it happens.

6. Registration Procedure

The Committee shall individually inform the assessed result to each applicant in due course. The applicant who has been notified of passing the assessment shall get in touch with the Committee, when informed by the Committee to proceed with the formalities, such as handing in photos, paying further relevant fees, etc. For the fees, please refer to Item 9, Fee Schedule. Upon completion of registration, the Committee shall issue an “APEC Engineer Certificate”, and the information of such applicants will be posted on the website of the Committee.

The applicant shall note that the effectiveness of each time of registration is one (1) year, and shall be subject to renewal, if the applicant so desires.

7. Assessment for Renewal of Registration

APEC Engineer membership shall be renewed annually, and the CPD shall be reviewed every four years. Depending on these requirements, the renewal process is either subject to checking against the validity of the professional practice licenses, or subject to further additional assessment of the Continuing Professional Development at a satisfactory level and CH requirements, prescribed as one of five requirements set forth for the APEC Engineer. Please refer to Attachment 6 for details.

8. Audit

Pursuant to requirements of the Manual of APEC Engineer, the Committee shall conduct periodical audits at a specified interval on the APEC Engineers, who have registered with and been selected by the Committee on a random basis. The items to be audited may include: confirming the records of CPD; confirming correctness and accuracy of the previously submitted statements, documents, or certificates; investigating present practicing status for making sure that they are not involved in any misconduct or in any activity resulting in temporarily suspension or revoke of their licenses, etc.

The aforesaid audit shall be carried out by the Audit Panel, which shall be specifically established for this purpose by the Committee.

Any registered APEC Engineer shall, if he is so selected for audit by the Audit Panel, be promptly responsive to requests made by the Panel, including submittal of clarification documents, or presence at meetings for verbal explanation or clarification regarding the points audited.

9. Fee Schedule

The Fee Schedule, currently effective for assessment, enrollment, or renewal, is indicated in the following Table 8-1 for reference, which may be subject to change, if required.

Table 8-1 Fee Schedule

Effective from Jan. 1, 2019

Item	Application ^{*1}	Registration ^{*2}	Renewal ^{*3}
	Per Case	Per Case	Every Year
Fees			
Fee (NTD)	3,000	1,000	1,000

Notes: *1. Application Fee: To be paid upon submittal of Assessment Application. Application fee will not be refunded if the application is not approved.

*2. Registration Fee: To be paid upon receipt of the Approval of Application. If the Applicant fails to pay the Registration Fee within three (3) months after receipt of the payment notice, his/her registration will be suspended.

*3. Renewal Fee: To be paid annually one year after the registration.

Registration will be subject to suspension if the payment of the Renewal Fee is interrupted.

In case of registration suspended, an APEC Engineer with valid CPDs can request reinstatement of his/her registration by paying two years Renewal Fees as compensation.

10. Appeal Panel

The Appeal Panel is set up in the Committee for receiving and sealing with complains or protest made by applicants regarding operation of assessment, audit, or registry, etc. All complaints and protests, which must be in writing, shall be carefully studied and resolved on the fair basis by the Appeal Panel. Recommendations of the Appeal Panel shall be submitted to the Committee for final review and approval, before formally responded to the complaints.

The contact person for complains or protest is indicated in the following section.

11. Contact Persons

For Information, Inquiry, or Appeal:

Yi-John Sun, Vice Chairman & CEO

Mail Address: Chinese Taipei APEC Engineer Monitoring Committee

3F., 1, Ren-Ai Rd., Sec.2, Taipei, Taiwan 100, R.O.C.

Tel: +886-2-23925128

Fax: +886-2-23973003

<http://www.apec-ipea.org.tw>

Email: apecengineer@cie.org.tw

(End of this Attachment)

ANNEX 1

Name List of Current Members of the Committee

* The current members' term of office is until December 2022.

No.	Position	Name	Position/Organization
1	Chairman	Yang, I-Tung	Professor & Chair Department of Civil and Construction Engineering, National Taiwan University of Science and Technology
2	Vice Chairman	CHIN, Chung-Tien	Senior Vice-President, Chairman's Office, Taiwan Life Company
3	Vice Chairman	HUNG, Sam	Project Development Director, EnBW Asia Pacific Ltd.
4	Member	CHANG, Dyi-Wei	President, Professional Structural Engineer Society of Republic of China
5	Member	CHEN, Chiang-Huai	President, Taiwan Professional Geotechnical Engineers Association
6	Member	CHEN, Hwang-Ming	Chairman, Union Construction Development Foundation
7	Member	CHIANG, Hsiu-Tan	Assistant VP, CTCI Corporation
8	Member	FAN, Su Ling	Director, Tamkang University Construction Law Research and Development Centre
9	Member	<u>HSIUNG, Bin- Chen Benson</u>	Professor, Department of Civil Engineering, National Kaohsiung University of Science and Technology
10	Member	HUANG, C. T.	Advisor, Chinese Union of Professional Applied Geological Engineer Associations

No.	Position	Name	Position/Organization
11	Member	Huang, Ching-Chang	Director, Department of Professionals and Technologists Examination, Ministry of Examination
12	Member	HUANG, Chung-Ren	Vice President, Sinotech Engineering Consultants Ltd.
13	Member	HUANG, Shi-Chang	Senior Vice President of Construction Supervision, MAA Taiwan
14	Member	HUNG, Chi-Te	President, Chinese Union of Professional Civil Engineer Associations
15	Member	KUO, Yuh-Lin	President, The Union of Soil and Water Conservation Professional Engineer Association of Republic of China
16	Member	LEE, Hua-Shen	Executive Supervisor, Taiwan Professional Electrical Engineers Association R.O.C.
17	Member	LEE, Teh-Chang	Emeritus Professor, National Taiwan University of Science and Technology
18	Member	LEU, Liang-Jenq	Secretary General, Institute of Engineering Education Taiwan (IEET)
19	Member	LIAO, Kuo-Chuan	President, Taiwan Province Professional Mechanical Engineers Association
20	Member	LIN, Yaw-Kan	Director, Department of Technology, Public Construction Commission
21	Member	LIU, Chin-I	Advisor, Union of Professional Hydraulic Engineer Associations

No.	Position	Name	Position/Organization
22	Member	LU, Chih-Wei	Professor, Department of Civil and Construction Engineering, National Taiwan University of Science and Technology
23	Member	WANG, Chi-Feng	President, Taiwan Professional Surveying Engineers Association
24	Member	WANG, J.L.	Chairman, CECI Nova Technology Co., Ltd.
25	Member	YANG, Chi-Chen	President, National Association of Professional Environmental Engineers, Taiwan R.O.C.

Supervisors, (Deputy) CEO & Advisors:

No.	Position	Name	Position/Organization
1	Supervisor	YAN, Jeou-Rong	Deputy Minister, Public Construction Commission
2	Supervisor	WANG, Andrew	Committee Chair on International Relations, CIE
3	CEO	WANG, Hsiang-Liu	Vice Chairman, Cross-Strait Cooperation Committee, Chinese Institute of Civil and Hydraulic Engineering
4	Deputy CEO	LIN, Chien-Hua	Senior Assistant VP, CECI Engineering Consultants, Inc. Taiwan
5	Advisor	MOH, Za-Chieh	Chairman and Co-Founder, MAA Group
6	Advisor	LI, John Chien-Chung	Honorary Professor, Department of Civil Engineering, National Central University
7	Advisor	SUN, Yi-John	Executive Director, THI Consultants Inc.
8	Advisor	TSENG, Dar-Jen	Past Chairman, Taoyuan International Airport Corporation Ltd.

No.	Position	Name	Position/Organization
9	Advisor	HO, Kam-Kui	
10	Advisor	WANG, Edward	
11	Advisor	YEN, Jia-Yush	
12	Advisor	LIN, Steel Ching-Chiang	

Revised on 2 June 2021

ANNEX 2

Application Forms of Chinese Taipei APEC Engineer & International Professional Engineer

2019.02.18 revised

Including seven (7) forms

Form 1: Self-assessment for Application Submittal

Form 2: Personal Information

Form 3: General Engineering Experience Report

Form 4: Two (2) Years of Significant Experience

Form 5: Three (3) Elective Experiences Claimed

Form 6: Summary of CPD Activities Claimed

Form 7: Code of Ethics for Chinese Taipei APEC Engineer/IntPE

Form 1: Self-assessment for Application Submittal

(Shadowed blank to be filled out by the Committee)

I hereby confirm that I want to apply for:

APEC Engineer

International Professional Engineer (IntPE)

Discipline Applied		Application Number	
Name of Applicant (English, in PRINT)		Signature (English)	
Name of Applicant (Chinese, in PRINT)		Signature (Chinese)	

According to the requirements set forth in the Guidelines issued by the Chinese Taipei Monitoring Committee, I have prepared and submitted herewith this Application Documents **in TRIPLES** for applying registry with the Committee. The Application Documents include the following (please check; if enclosed):

Forms	Items Checked
1 Self-assessment	<input type="checkbox"/> Complete
2 Personal Information	<input type="checkbox"/> Complete
Higher Education (Bachelor Degree) Graduation Year _____	APEC Engineer
	<input type="checkbox"/> Local: <input type="checkbox"/> Accredited Program <input type="checkbox"/> National University/College <input type="checkbox"/> Private University/College <input type="checkbox"/> Engineering College Post Graduate Degree without bachelor Degree
	IntPE
	<input type="checkbox"/> Local: Education Criteria for the Chinese Taipei IntPE: Higher Education Degrees Accredited by IEET (a signatory member of the Washington Accord in Taiwan); based on the newly updated list of programs successfully accredited and officially announced by the IEET.
	<input type="checkbox"/> Overseas: <input type="checkbox"/> FEIAP <input type="checkbox"/> Washington Accord <input type="checkbox"/> 1st Step Exam of JCEA <input type="checkbox"/> Eng. Exam by US
Professional Qualification & Independent Practice	<input type="checkbox"/> National Exam. and Professional Practice
	Discipline _____ Year Passed (in A.D.) _____ <i>*related to applied discipline only</i> Professional Practice <input type="checkbox"/> Consulting <input type="checkbox"/> Construction
	<input type="checkbox"/> CIE Senior Member <input type="checkbox"/> 10(+) years experiences in consulting firm or construction company, among which 5(+) years on managerial position <input type="checkbox"/> been listed in the "Expert Recommendation Databank" of the Public Construction Commission
3 General Engineering Experience	_____ Years _____ Months Claimed (Min. 7 years)
4 2 Years of Significant Experience	_____ Years _____ Months Claimed (Min. 2 years)
5 3 Elective Experiences Claimed	Total Number of Elective Experiences Claimed _____ (Circle Min. 3 codes) Code No. O-1- a, b, c, d O-2- a, b, c O-3- a, b Code No. O-4- a, b O-5- a, b, c O-6- a, b, c, d, e
6 Summary of CPD Activities Claimed	Total _____ Credit-Hours(CH) Admitted, including Category I _____ CH; Category II _____ CH; Category III _____ CH
7 Code of Ethics	<input type="checkbox"/> Signed <input type="checkbox"/> Date of Signature

I hereby declare that all documents submitted above are true and correct, and will assume all consequence and responsibilities arisen out as a result of any untrue statement made in the submitted documents.

Submitted by (Signature of Applicant)

Date

Date of Application		Checked by	
Received	DD/ MM/YY	Administrator	

Form 2: Personal Information

Personal Particulars

Name (English)	Given Name + Family Name			2 inch photo (Taken within last 2 months)
Name (Chinese)				
Date of Birth	DD/MM/YY (in A.D.)			
ID No.				
Affiliation	(English)			
	(Chinese, if available)			
Position*	(English and Chinese)			
Business Address	(English and Chinese)			
Home Address	(English and Chinese)			
Business Tel.		Fax		Mobile phone
Home Tel.		e-mail		

Education Background

Department	Name of School	Graduation Year (in A.D.)	Degree Conferred*

Professional Qualification & Independent Practice (① or ②)

①		Discipline	Year (in A.D.)	Issued by	Certificate No.
	Qualification Examination Passed* (考試及格證書)				
	Professional Engineer Certificate* (技師證書)				
	<input type="checkbox"/> Consulting - Professional Practicing License* (技師執業執照) -Discipline: _____ -Number: _____ -Expired date: _____ DD/MM/YY (in A.D.)				
<input type="checkbox"/> Construction - Date of Approved Letter Received* (營造業專任工程人員) DD/MM/YY (in A.D.)					
②	CIE Senior Member*	Accumulated working experience*: _____ (years)			
	CIE M'ship No. _____ Since:	Accumulated experience on Managerial Position*: _____ (years)			
		<input type="checkbox"/> been listed in the "Expert Recommendation Databank" of the PCC*			

Note: * Certified photo copy to be attached.

Form 3: General Engineering Experience Report

Name of Applicant (in PRINT)		Signature					
Organization worked (English)		Organization worked (Chinese)					
Starting Month	MM YY (in A.D.)	Ending Month	MM YY (in A.D.)				
Sum of Engineering Experience	Years	Months					
Remarks: 1. Minimum 7 years practical experience in related engineering fields since graduation is required. 2. Describe in a retrospective order, beginning with the most recent one. 3. Use one sheet for each organization. 4. Please fill out the Work No. in serial manner, i.e. 1, 2, 3 for all works. 5. Please refer to Table 4-1 of Attachment 4 for filling out Code Number. 6. Attach certificates in list if available.							
Work No.	Code No.	Starting Month	Ending Month	Project Name (if available)	Location	Nature of work	Position /Title
1	C-1-a						
2							
3							
4							
5							
6							
7							
8							
9							
Certifying Organization and Attester							
Certifying Organization							
Address							
Attester (in PRINT)				Signature			
Relationship of Attester to Applicant				Date of Signature			
Telephone				E-Mail			

Form 4: Two (2) Years of Significant Experience

Name of Applicant		Project Name (if available)			
Work No. (refer to Form 3)		Code No. (refer to Table 4-1)		Position/ Title	
Starting Month	MM/YY (in A.D.)	Ending Month	MM/YY (in A.D.)	Period (months)	

❶ Describe in details of your: (1) Personal contribution and responsibilities; (2) Problems faced; (3) Solution found; (4) Engineering judgments made; and (5) Impact generated by such solution and judgments. Please use about 50-200 words. If space is not enough, extra pages may be added and attached hereunder.

❷ If necessary, use another sheet for other organization to fulfill requirement.

Certifying Organization and Attester

Certifying Organization				
Address				
Attester (in PRINT)		Signature		
Relationship of Attester to Applicant		Date of Signature		
Telephone		E-Mail		

Form 5: Three (3) Elective Experience Claimed

Name of Applicant		Project Name (if available)	
Work No. (refer to Form 3)		Code No. (refer to Table 4-2)	Position/ Title
Starting Month	MM/YY (in A.D.)	Ending Month	MM/YY (in A.D.)

❶ Describe in details of your: (1) Personal contribution and responsibilities; (2) Problems faced; (3) Solution found; (4) Engineering judgments made; and (5) Impact generated by such solution and judgments. Please use about 50-200 words. If space is not enough, extra pages may be added and attached hereunder.

❷ One sheet for one project.

Certifying Organization and Attester

Certifying Organization			
Address			
Attester (in PRINT)		Signature	
Relationship of Attester to Applicant		Date of Signature	
Telephone		E-Mail	

Form 6: Summary of CPD Activities Claimed for Year _____

Referring to Attachment 6: Criteria of Continuing Professional Development, use the table below as a summary of those records.

Relevant certificates shall be also attached for review. (Use one sheet for each year)

Activity	Date	Category	Type	CPD Activity/ Topic/Provider	Actual Hours	Credit-Hours	Certificates Attached
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
Total CPD Credit-Hours for Category I							
Total CPD Credit-Hours for Category II							
Total CPD Credit-Hours for Category III							
Total CPD Credit-Hours for year _____							
Name of Applicant							

Form 7: Codes of Ethics for Chinese Taipei APEC Engineer/IntPE

After admitted into the Chinese Taipei Economy, APEC Engineers & International Professional Engineers (IntPEs) are committed to adhere to the fundamental principles of their respective profession guided by the norm of conduct consistent with following Code of Principles and Ethics. The Tenets of this Code are:

1. Responsibilities to the Society

Dedicate and Adhere to the Law: comply with all laws and regulations, to ensure public safety and health, and to enhance public welfare.

Respect Nature: maintain ecological balance, treasure all natural resources and conserve the cultural heritage.

2. Responsibilities to the Profession

Commit to Professionalism and Duty: consistently apply professional knowledge, adopt good standing engineering practices, and fulfill professional duty.

Be Creative and Enterprise: acquire the latest technological knowledge, strive to improve skills and raise the standards of product quality.

3. Responsibilities to the Client

Render Services with Sincerity: serve with all competency and talent, protect with professional attention the interests of the Client and achieve each project's goals.

Faithfully Seek Mutual Benefits: establish mutual trust, secure a win-win consensus and create great engineering accomplishments.

4. Responsibilities to the Colleagues

Cooperate with Specialists in Other Fields: strive to carry out the work within professional capacity, emphasize coordination and cooperation and improve efficiency of execution.

Ensure the Continuity of the Professional Contributions: dedicate to self-encouragement and mutual strengthening for advancement of engineering practice, pass on technical experiences to and encourage younger professionals.

I declare to obey and be bound by the above Codes.

Signed : _____

Date : _____

(END OF APPLICATION FORMS)