

The Current International Environment Governing Engineering Education and Practice

There are six international agreements governing mutual recognition of engineering qualifications and professional competence. In each of these agreements countries/economies who wish to participate may apply for membership, and if accepted become members or signatories to the agreement. In broad principle, each country/economy must meet its own costs, and the body making application must verify that it is the appropriate representative body for that country/economy.

I - Agreements covering tertiary qualifications in engineering:

There are three agreements covering mutual recognition in respect of tertiary-level qualifications in engineering:

[*The Washington Accord*](#) signed in 1989 was the first - it recognises substantial equivalence in the accreditation of qualifications in **professional engineering**, normally of four years duration.

[*The Sydney Accord*](#) commenced in 2001 and recognises substantial equivalence in the accreditation of qualifications in **engineering technology**, normally of three years duration.

[*The Dublin Accord*](#) is an agreement for substantial equivalence in the accreditation of tertiary qualifications in **technician engineering**, normally of two years duration. It commenced in 2002.

(Note: All tertiary engineering programs (including electronics engineering) in the Philippines are affected by the Washington Accord.)

II - FREQUENTLY ASKED QUESTIONS ABOUT THE WASHINGTON ACCORD:

1. What is the Washington Accord?

The Washington Accord was signed in 1989. It is an agreement between the bodies responsible for accrediting professional engineering degree programs in each of the signatory countries. It recognizes the substantial equivalency of programs accredited by those bodies, and recommends that graduates of accredited programs in any of the signatory countries be recognized by the other countries as having met the academic requirements for entry to the practice of engineering. The Washington Accord covers professional engineering undergraduate degrees. Engineering technology and postgraduate-level programs are not covered by the Accord.

2. How can I find out if my program is recognized under the Washington Accord?

The [list of programs](#) currently recognized under the Washington Accord can be searched by signatory country.

3. How do the Washington Accord signatories recognize degrees earned prior to the signing of the Accord?

Generally, the signatories only accept accredited degrees earned from the date of acceptance of a signatory into the Accord. Therefore, the original six signatories (IEAust-Australia, CCPE-Canada, IEI-Ireland, IPENZ-New Zealand, EngC-United Kingdom, and ABET-United States) accept one another's degrees accredited in 1989 and onward. Degrees from HKIE-Hong Kong, ECSA-South Africa, JABEE- Japan, and IES- Singapore are generally accepted beginning in 1995, 1999, 2005, and 2006 respectively, the dates these accrediting bodies were accepted as signatories of the Accord. For degrees earned prior to the aforementioned dates, each signatory country assesses the degrees on an individual basis. They should be contacted individually for specific policies on this matter.

4. If a program is not recognized by the Washington Accord, can it be submitted for recognition by the Washington Accord signatories?

Individual degrees cannot be submitted for recognition under the Washington Accord.

5. I hold an engineering degree from a non-Washington Accord signatory country. This degree, however, is recognized by a Washington Accord signatory as substantially equivalent to an engineering degree accredited within this signatory country. Is my degree recognized by other Washington Accord signatories?

The Washington Accord Agreement applies only to accreditations conducted by the signatories within their respective national or territorial boundaries. The signatories are not bound to recognize programs accredited or recognized as substantially equivalent by other signatories outside their national boundaries.

6. The list of accredited programs posted by a Washington Accord signatory includes non-engineering programs. Do Washington Accord signatories recognize technology degrees?

Washington Accord signatories recognize only engineering programs accredited by the respective signatories.

Information on the technology agreements honored by individual signatories may be found on their respective websites. The [Sydney Accord](#) provides for the mutual recognition of technology programs.

7. Do I get automatic licensure recognition in any signatory country of the Washington Accord after completing an engineering program/degree in a signatory country?

The licensing or registration of professional engineers is not covered directly or in full by the Washington Accord. However, the academic requirements which are part of licensing /regulation requirements are covered by the Accord.

The licensure process differs among signatory countries. You must contact the individual signatory country to which you are applying for licensure in order to learn of national and regional licensure regulation and specific requirements for holders of overseas degrees.

8. If I get an accredited Master's degree from a signatory country, can my overseas undergraduate degree be recognized by the signatory?

The Accord only recognizes undergraduate degrees earned in a signatory country. You must contact the individual signatory for information on how each assesses the equivalency of studies completed outside national boundaries. Various signatory countries have evaluation centers charged with evaluation and recognition of overseas programs. Information about this process can be found on their website.

III - Signatories of the Washington accord:

- have full rights of participation in the Accord; qualifications accredited or recognised by other signatories are recognised by each signatory as being substantially equivalent to accredited or recognised qualifications within its own jurisdiction.
- **Australia** - Represented by [Engineers Australia \(1989\)](#)
- **Canada** - Represented by [Engineers Canada \(1989\)](#)
- **Chinese Taipei** - Represented by [Institute of Engineering Education Taiwan \(2007\)](#)
- **Hong Kong China** - Represented by [The Hong Kong Institution of Engineers \(1995\)](#)
- **Ireland** - Represented by [Engineers Ireland \(1989\)](#)
- **Japan** - Represented by [Japan Accreditation Board for Engineering Education \(2005\)](#)
- **Korea** - Represented by [Accreditation Board for Engineering Education of Korea \(2007\)](#)
- **Malaysia** - Represented by [Board of Engineers Malaysia \(2009\)](#)
- **New Zealand** - Represented by [Institution of Professional Engineers NZ \(1989\)](#)
- **Russia** - Represented by [Association for Engineering Education of Russia \(2012\)](#)
- **Singapore** - Represented by [Institution of Engineers Singapore \(2006\)](#)
- **South Africa** - Represented by [Engineering Council of South Africa \(1999\)](#)
- **Turkey** - Represented by [MUDEK \(2011\)](#)
- **United Kingdom** - Represented by [Engineering Council UK \(1989\)](#)
- **United States** - Represented by [Accreditation Board for Engineering and Technology \(1989\)](#)

Organizations holding provisional status of the Washington accord:

- have been identified as having qualification accreditation or recognition procedures that are potentially suitable for the purposes of the Accord; those organisations are further developing those procedures with the goal of achieving signatory status in due course; qualifications accredited or recognised by organisations holding provisional status are not recognised by the signatories
- **Bangladesh** - Represented by [Board of Accreditation for Engineering and Technical Education](#)
- **China** - Represented by [China Association for Science and Technology](#)
- **India** - Represented by [National Board of Accreditation of All India Council for Technical Education](#)
- **Pakistan** - Represented by [Pakistan Engineering Council](#)
- **Philippines** - Represented by [Philippine Technological Council](#)
- **Sri Lanka** - Represented by [Institution of Engineers Sri Lanka](#)

IV - About The Philippine Technological Council:

The Philippine Technological Council (PTC) was formed in 1978 as one of the sectoral components of the Federation of Professional Associations (FPA now known as PFPA) and was incorporated in 1980 as non-stock and non-profit corporation under the Securities and Exchange Commission (SEC) by a group of concerned and selfless individuals who shared the common ideal of fostering the adoption and utilization of technological and engineering expertise of engineers to improve the quality of life of peoples and to contribute to the socio-economic development agenda of the communities where they operate.

PTC has transformed since then into being the umbrella organization of the thirteen (13) professional engineering organizations in the country each representing specific engineering field of practice. The purposes of the Council is to foster professional inter-disciplinary collaboration and interaction among the individual professionals and its member- organizations; to keep abreast with the latest developments in the rapidly changing world; and, to effectuate a united rapport among the members and with those of other professions, the government and the communities. It endeavours to harmonize general policies and actions that affect the engineering profession across fields of practice, serves as the clearing house, and provides a forum for members in the settlement of inter-disciplinary differences and disputes. It acts as the focal point for advocacies that impact on the engineering profession and engineering practice and for international linkages and the continual improvement and promotion of global competitiveness of the Filipino engineers.

Members of the PTC:

PTC is the umbrella organization of all twelve (12) accredited professional engineering organizations (APO), which are recognized by the Professional Regulation Commission (PRC),

and, one self-certifying engineering professional organization (PIIE) in the country. Each of the professional engineering organization consists of members qualified to practice in a particular field of engineering practice.



1. SAEP (Society of Aerospace Engineers of the Philippines)
2. PSAE (Philippine Society of Agricultural Engineers)
3. PICHE (Philippine Institute of Chemical Engineers)
4. PICE (Philippine Institute of Civil Engineers)
5. IIEE (Institute of Integrated Electrical Engineers of the Philippines)
6. IECEP (Institute of the Electronics Engineers of the Philippines)
7. GEP (Geodetic Engineers of the Philippines)
8. PIIE (Philippine Institute of Industrial Engineers)
9. PSME (Philippine Society of Mechanical Engineers)
10. SMEP (Society of Metallurgical Engineers of the Philippines)
11. PSEM (Philippine Society of Mining Engineers)
12. SONAME (Society of Naval Architects and Marine Engineers)
13. PSSE (Philippine Society of Sanitary Engineers)

V - Agreements covering competence standards for practicing engineers:

The other three agreements cover recognition of equivalence at the practising engineer level i.e. it is individual people, not qualifications that are seen to meet the benchmark standard. The concept of these agreements is that a person recognised in one country as reaching the agreed international standard of competence should only be minimally assessed (primarily for local knowledge) prior to obtaining registration in another country that is party to the agreement.

The oldest such agreement is the [*APEC Engineer agreement*](#) which commenced in 1999. This has Government support in the participating APEC economies. The representative organization in each economy creates a "register" of those engineers wishing to be recognised as meeting the generic international standard. Other economies should give credit when such an engineer seeks to have his or her competence recognised. The Agreement is largely administered between engineering bodies, but there can be Government representation and substantive changes need to be signed off at governmental APEC Agreement level.

The [*International Professional Engineers agreement*](#) commenced in 2001. It operates the same competence standard as the APEC Engineer agreement but any country/economy may join. The

parties to the agreement are largely engineering bodies. There are intentions to draw IPEA and APEC closer together.

The [International Engineering Technologist agreement](#) was signed by participating economies/countries in 2003. The parties to the Agreement have agreed to commence establishing a mutual recognition scheme for engineering technologists.

VI - About APEC (Asia Pacific Economic Cooperation) Engineer Agreement:

Introduction

There is an agreement in place between a number of APEC countries for the purposes of recognising “substantial equivalence” of professional competence in engineering. APEC countries can apply to become members of the agreement by demonstrating that they have in place systems which allow the competence of engineers to be assessed to the agreed international standard set by the APEC Engineer agreement.

Benefits

Registration on the IPER register with APEC Engineer ensures that professional engineers have the opportunity to have their professional standing recognised within the APEC region thereby contributing to the globalisation of professional engineering services. This is of particular benefit to engineering firms that are providing services to other APEC economies but it also adds value to individuals who may wish, at some stage, to work in these economies.

Each member economy of the APEC agreement has given an undertaking that the extra assessment required to be registered on the local professional engineering register will be minimised for those registered under the APEC Engineer agreement.

APEC Engineer Member Economies:

Members of the agreement have full rights of participation in the agreement; each operates either a national section of the APEC Engineer register or a national section of a combined APEC Engineer/International Professional Engineer (IntPE) register; registrants on these national sections may receive credit when seeking registration or licensure in the jurisdiction of another member.

- **Australia** - Represented by [Engineers Australia \(2000\)](#)
- **Canada** - Represented by [Engineers Canada \(2000\)](#)
- **Chinese Taipei** - Represented by [Chinese Institute of Engineers \(2005\)](#)
- **Hong Kong China** - Represented by [The Hong Kong Institution of Engineers \(2000\)](#)
- **Indonesia** - Represented by [Persatuan Insinyur Indonesia \(Institution of Engineers\) \(2001\)](#)
- **Japan** - Represented by [Institution of Professional Engineers Japan \(2000\)](#)

- **Korea** - Represented by [Korean Professional Engineers Association \(2000\)](#)
- **Malaysia** - Represented by [Institution of Engineers Malaysia \(2000\)](#)
- **New Zealand** - Represented by [Institution of Professional Engineers NZ \(2000\)](#)
- **Philippines** - Represented by [Philippine Technological Council \(2003\)](#)
- **Russia** - Represented by [Association for Engineering Education of Russia \(2010\)](#)
- **Singapore** - Represented by [Institution of Engineers Singapore \(2005\)](#)
- **Thailand** - Represented by [Council of Engineers Thailand \(2003\)](#)
- **United States** - Represented by [National Council of Examiners for Engineering and Surveying \(2001\)](#)

What is an APEC Engineer?

An APEC Engineer is assessed in his/her own jurisdiction as a professional engineer eligible for independent practice, who has gained a minimum of seven years experience since graduation, and has spent at least two years in responsible charge of significant engineering work. An APEC Engineer has also maintained their continuing professional development at a satisfactory level.

(Definition from APEC Engineer Manual prepared by APEC Engineer Coordinating Committee, July 2009)

Note : Details on the requirements and steps on how to become a registered APEC Engineer can be obtained from the COMPETENCY STANDARDS HANDBOOK FOR APEC ENGINEER.

VII - About International Professional Engineers Agreement:

Introduction

The International Professional Engineers Agreement, IPEA (formally the Engineers Mobility Forum agreement) is a multi-national agreement between engineering organisations in the member jurisdictions which creates the framework for the establishment of an international standard of competence for professional engineering, and then empowers each member organization to establish a section of the International Professional Engineers Register.

The standard of competence applied is the same as for the [APEC Engineer agreement](#). Most of the APEC agreement members are also members of the IPEA agreement, but the latter is truly global so that countries such as the United Kingdom, Ireland and South Africa have become members of IPEA even though they cannot join the APEC agreement.

International Professional Engineers Agreement Member Countries:

Members have full rights of participation in the agreement; each operates a national section of the International Professional Engineer (IntPE) register; registrants on these national sections may receive credit when seeking registration or licensure in the jurisdiction of another member.

- **Australia** - Represented by [Engineers Australia \(1997\)](#)
- **Canada** - Represented by [Engineers Canada \(1997\)](#)
- **Chinese Taipei** - Represented by [Chinese Institute of Engineers \(2009\)](#)
- **Hong Kong China** - Represented by [The Hong Kong Institution of Engineers \(1997\)](#)
- **India** - Represented by [Institution of Engineers India \(2009\)](#)
- **Ireland** - Represented by [Engineers Ireland \(1997\)](#)
- **Japan** - Represented by [Institution of Professional Engineers Japan \(1999\)](#)
- **Korea** - Represented by [Korean Professional Engineers Association \(2000\)](#)
- **Malaysia** - Represented by [Institution of Engineers Malaysia \(1999\)](#)
- **New Zealand** - Represented by [Institution of Professional Engineers NZ \(1997\)](#)
- **Singapore** - Represented by [Institution of Engineers Singapore \(2007\)](#)
- **South Africa** - Represented by [Engineering Council of South Africa \(1997\)](#)
- **Sri Lanka** - Represented by [Institution of Engineers Sri Lanka \(2007\)](#)
- **United Kingdom** - Represented by [Engineering Council UK \(1997\)](#)
- **United States** - Represented by [National Council of Examiners for Engineering and Surveying \(1997\)](#)

Provisional Members have been identified as having competence assessment systems developing towards equivalence to those of full Members; they do not currently operate national sections of the International Professional Engineer register.

- **Bangladesh** - Represented by [Bangladesh Professional Engineers, Registration Board](#)
- **Pakistan** - Represented by [Pakistan Engineering Council](#)
- **Russia** - Represented by [Association for Engineering Education of Russia](#)

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