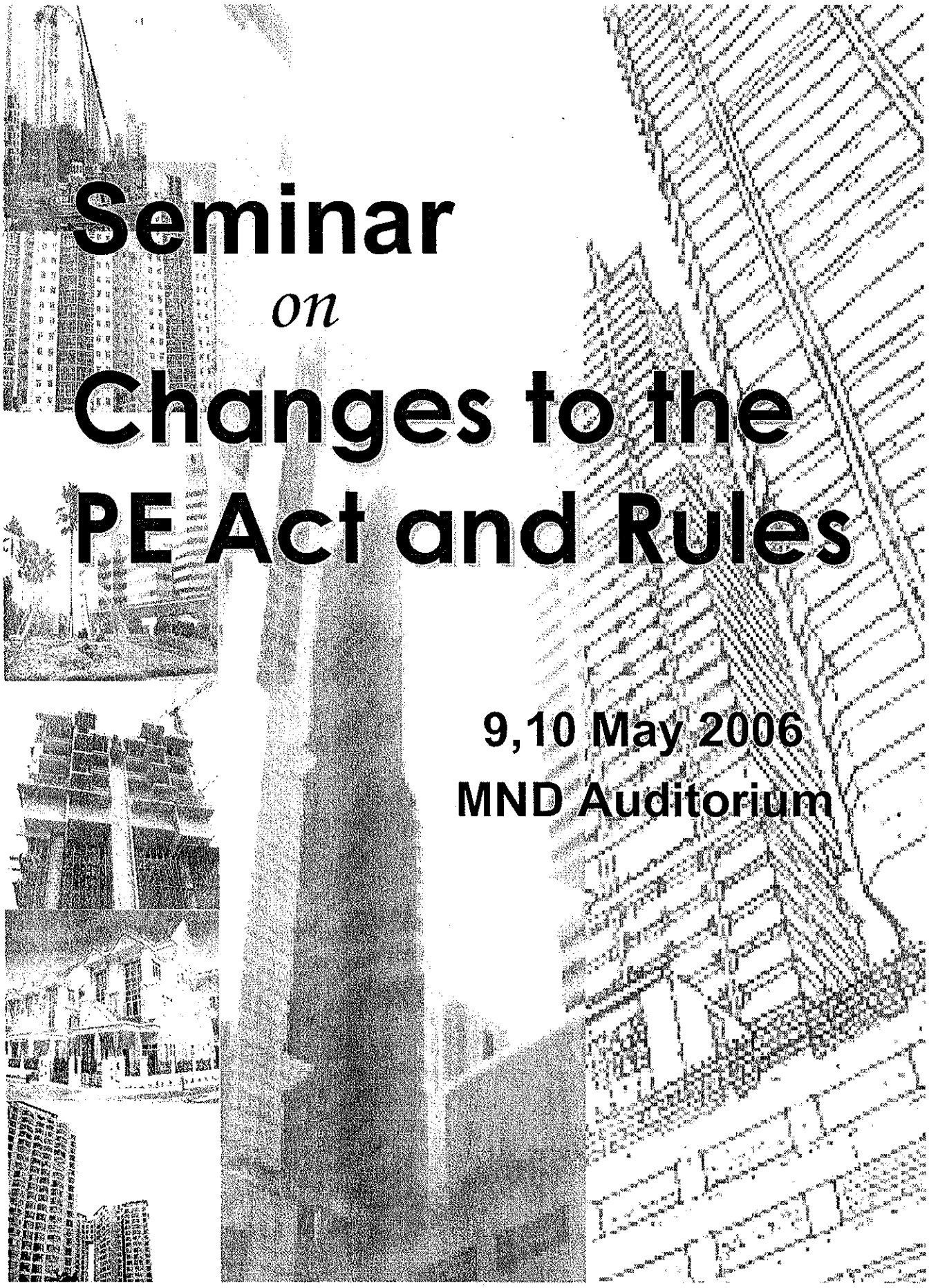
professional engineers board singapore



Seminar *on* Changes to the PE Act and Rules

9,10 May 2006

MND Auditorium

1ST STOREY MND COMPLEX, 5 MAXWELL ROAD, SINGAPORE 069110. TEL: 6222 9293 Fax: 6222 9471 Email: registrar@peb.gov.sg

Seminar on Changes to the PE Act and Rules MND Auditorium 9, 10 May 06

Program

1.30 – 2.00 pm	Registration
2.00 - 2.15 pm	Welcome address- Mr Chua Koon Hoe President PEB
2.15 – 3.00 pm	PE Act and Rules - Highlights of Recent Changes - Mr Chin Jen Chyi Registrar PEB
3.00 - 3.30 pm	Tea break
3.30 - 4.15 pm	Enhancing Mobility and Improving Mutual Recognition of Professional Engineers – Dr Lock Kai Sang Board Member PEB
4.15 - 4.45 pm	Q & A Session

Professional Engineers Act and Rules Highlights of Recent Changes

Professional Engineers Act and Rules Highlights of Recent Changes

Chin Jen Chyi

Professional Engineers Act and Rules - Highlights of Recent Changes

- PE Act and Rules
- Recent Changes To PE Act and Rules

Professional Engineers Act and Rules

- Professional Engineers Act
- Professional Engineers Rules
- Professional Engineers (Code of Professional Conduct and Ethics) Rules
- Professional Engineers Board Rules
- Professional Engineers (Approved Qualifications) Notification

PROFESSIONAL ENGINEERS ACT
(CHAPTER 253)

An Act to establish the Professional Engineers Board, to provide for the registration of professional engineers, to regulate the qualifications and conduct of professional engineers and to regulate corporations, partnerships and limited liability partnerships which supply professional engineering services in Singapore.

Professional Engineers Act

Key Areas

- Establishment of the Professional Engineers Board
- Registration of professional engineers
- Licensing of corporations, partnerships, LLPs
- Regulating conduct of professional engineers

Professional Engineers Act

Part I Preliminary
Part II Professional Engineers Board
Part III Privileges of Professional Engineers
Part IV Registration of Professional Engineers
Part V Practising Certificates
Part VI Multi-discipline and Corporate Practice
Part VII Disciplinary Proceedings
Part VIII General

Professional Engineers Act

Part I Preliminary
- Short title
- Interpretation of various terms
- Act not to apply to Government

Part VIII General
- Power of Minister to approve rules made by the Board

Professional Engineers Act

	Part I Preliminary
Establishment of the Professional Engineers Board	Part II Professional Engineers Board
Registration Of Professional Engineers	Part III Privileges of Professional Engineers Part VI Registration of Professional Engineers Part V Practising Certificates
Licensing Of Corporations, Partnerships, LLPs	Part VI Multi-discipline and Corporate Practice
Regulating Conduct Of Professional Engineers	Part VII Disciplinary Proceedings
	Part VIII General

Establishment of the Professional Engineers Board

Part II Professional Engineers Board

- Body Corporate
- Sue and be sued
- Acquire and dispose of property
- Do and perform such other acts as bodies corporate may by law perform

Establishment of the Professional Engineers Board

Part II Professional Engineers Board

Functions of PEB

- Keep and maintain a register of professional engineers, practitioners and licensees
- Hold or arrange for the holding of examinations to qualify persons for registration
- Approve or reject applications for registration;
- License corporations, partnerships and limited liability partnerships
- Establish and maintain standards of professional conduct and ethics
- Hear and determine disputes relating to professional conduct or ethics of professional engineers
- Promote learning and education in engineering

Establishment of the Professional Engineers Board

Part II Professional Engineers Board

- Elected members
- Appointed members
- Citizens or PR of Singapore
- Term of not more than 3 years
- Ex-officio members
- Professional Engineers Board Rules

Registration of Professional Engineers

Part III Privileges of Professional Engineers

- Only registered PE with PC can engage in PE work
- Only registered PE with PC, allied professional, licensed corporation or limited liability partnership can supply or offer to supply PE services

Part IV Registration of Professional Engineers

- Application for registration and removal from register

Part V Practising Certificates

- Application for PC and cancellation of certificate

•The Professional Engineers Rules

Licensing of Corporations Partnerships LLPs

Part VI Multi-discipline and Corporate Practice

- Application for license for multi-discipline and corporate practise
- Conditions of Practise
- Revocation of license

- The Professional Engineers Rules

Regulating Conduct of Professional Engineers

Part VII Disciplinary Proceedings

- Concerns the whole process of dealing with complaints against registered PEs.

- Code of Professional Conduct and Ethics
- The Professional Engineers Rules

Recent Changes to PE Act and Rules

Key Areas	Changes	PE Act
		I Preliminary
Establishment of the Professional Engineers Board	1 Revise Composition of Boards 2 Introduce Election System	II Professional Engineers Board
Registration Of Professional Engineers	3 Amend Scope of PE Registration	III Privileges of Professional Engineers
	4 Streamline Registration System for PEs 5 Register PEs with Geotechnical Specialisation	IV Registration of Professional Engineers
		V Practising Certificates
Licensing Of Corporations, Partnerships, LLPs	6 Allow Limited Liability Partnerships (LLPs) 7 Facilitate Start-Ups	VI Multi-discipline and Corporate Practice
Regulating Conduct of Professional Engineers	8 Fine-tune Disciplinary Proceedings	VII Disciplinary Proceedings
		VIII General

1 Revise Composition of Board

10 members appointed by the Minister:	15 members:
• President	• Registered professional engineers with at least 10 years standing
• 8 registered professional engineers of whom 3 are from the Council of the Institution of Engineers, Singapore	• Up to 6 registered professional engineers with PC who are resident in Singapore to be elected
• Registered architect from the Board of Architects	• Up to 6 registered professional engineers to be appointed by the Minister
	• Commissioner of Building Control • President of the Institution of Engineers or his nominee • Registered architect from the Board of Architects

2 Introduce Election System

- Registered Professional Engineers with PC
- Stand for election
- Propose up to 6 candidates for election
- Second a candidate for election.
- Vote in the election
- Penalty for not voting $300/- fine

3 Amend Scope of PE Registration

PEB registered PEs from the 12 disciplines of engineering:	PEB registers PEs from the 3 construction-related disciplines :
• Aeronautical • Chemical • Civil • Electrical • Electronic • Environmental • Industrial • Information Technology • Marine • Naval Architecture • Mechanical • Production/Manufacturing	• Civil • Electrical • Mechanical (NEW)

4. Streamline Registration Criteria

Applicants must have either:	Applicants must have :
a) at least 2 years of practical experience in Singapore and pass an examination	a) 4 years of practical experience +
b) 5 years of practical experience including at least 2 years in Singapore	b) Sit and pass prescribed examinations
c) 10 years practical experience in engineering works.	

4. Streamline Registration Criteria

Examination System

- Fundamentals of Engineering Examination -tests knowledge of fundamental engineering subjects
- Practice of Professional Engineering Examination- tests ability to apply knowledge and experience in professional engineering practice, and knowledge of the rules and regulations
- Sit for Fundamentals of Engineering Examination after obtaining approved degree or qualification } immediate
- Sit for the Practice of Professional Engineering Examination after
  - (a) Completed 4 years of practical experience
  - (b) Sat for and passed the Fundamentals of Engineering Examination.

4 Streamline Registration Criteria

Professional Engineers (Qualification for Registration As Professional Engineers) (Exemption) Order 2006

Applicants exempted from examinations:

- Apply for registration during the 6 months period within 1 Dec 05
- At least 5 years of practical experience as at 1 Dec 05 and have the required qualifications

4. Streamline Registration Criteria

Examination System

- Fees to sit for the Fundamentals of Engineering Examination is $350
- Fees to sit for the Practice of Professional Engineering Examination is $450
- Fundamentals of Engineering Examination in Sep 06
- Professional Practice Examination in Mar 07.

4. Streamline Registration Criteria

Subject	Time	Format
FEE Part 1 Core engineering subjects in civil/mechanical/electrical engineering	3 hours	• 40 Multiple Choice Questions (MCQ) • Open book exam
FEE Part 2 Core/Elective subjects in civil/mechanical/electrical engineering	3 hours	• Choose 5 out of 9 non-MCQ questions (civil) • Choose 5 out of 7 non- MCQ questions (electrical, mechanical) • Open book exam

4. Streamline Registration Criteria

Subject	Time	Format
PPE Part 1 Common paper	2 hours	• Choose 4 out of 6 essay questions • Open book exam
PPE Part 2 Civil/mechanical/electrical engineering	4 hours	• 1 compulsory question plus choose 4 out of 6 design/essay questions • Open book exam

5 Register PEs with Geotechnical Specialisation

- Act provides for registration of specialist professional engineer
- Introduced in response to JRC's ← Joint Review Committee recommendation that deep excavation works should be carried out by professional engineers who specialise in geotechnical engineering.

5 Register PEs with Geotechnical Specialisation

Registered PE in Civil Engineering with valid PC

Set A
- 7 years recognized practical experience
- 4 years of recognized practical experience in geotechnical engineering
- Post-graduate degree in geotechnical engineering from approved list

Set B
- 7 years of recognized practical experience
- 5 years of recognized practical experience in geotechnical engineering
- Passed specialist registration examination on geotechnical engineering conducted by PEB

Set C
- Submit application within 12 months of 1st Dec 05
- 10 years of recognized practical experience
- 6 years of recognized practical experience in geotechnical engineering

6 Allow Limited Liability Partnerships (LLPs)

- Limited Liability Partnership Act came into effect in April 2005
- Wide range of business options
- License LLPs which can supply professional engineering services.

6 Allow Limited Liability Partnerships (LLPs)

General Features

- Body corporate formed by registration under the LLP Act
- Has legal personality separate from its partners
- Has perpetual succession
- Sue and be sued
- Enter into contracts
- Hold property

6 Allow Limited Liability Partnerships (LLPs)

Liability of LLP

- LLP solely responsible for its obligations
- LLP liable for wrongful act or omission of partner
- Partner liable for his own wrongful act or omission.

6 Allow Limited Liability Partnerships (LLPs)

Partners/Key Personnel

- Minimum of two partners
- Individual or body corporate
- Rights and duties governed by partnership agreement
- One manager being of full age (> 21yrs) and capacity and ordinarily resident in Singapore

6 Allow Limited Liability Partnerships (LLPs)

- Statement Lodged with ACRA provides that a primary business is to supply PE service
- Partners consist only of PE or allied professionals, limited corporations, unlimited corporations or LLPs
- At least one of the partners of the limited liability partnership is a registered professional engineer who has in force a practising certificate
- Business of the LLP, in respect of professional engineering work in Singapore, will be under the control and management of a partner who is a registered professional engineer who has in force a practising certificate
- Authorised under a resolution of the partners of the limited liability partnership to make all final engineering decisions on behalf of the limited liability partnership
- Limited liability partnership is insured against professional liability

6 Allow Limited Liability Partnerships (LLPs)

Advantages

- Easier to administer
- May or may not have LLP partnership agreement
- Not required to ~~maintain~~ accounting and other records
- More flexibility in arrangement on management, capital contribution, return and distribution of capital, profit sharing
- No paid up capital requirement
- Limited Liability

7 Facilitate Start-Ups

Limited Corporation

- Paid-up capital is reduced to $500,000.

Unlimited Corporation

- Proportion of directors, who must be professional engineers, or allied professionals is halved from 100% to a simple majority.

8 Fine-tune Disciplinary Proceedings

- Investigation Committee
- Disciplinary Committee

8 Fine-tune Disciplinary Proceedings

Investigation Committee

- Chairman who is a member of the Board,
- 2 members who are registered professional engineers
- 1 member who is an allied professional or a lay person.

Investigation panel

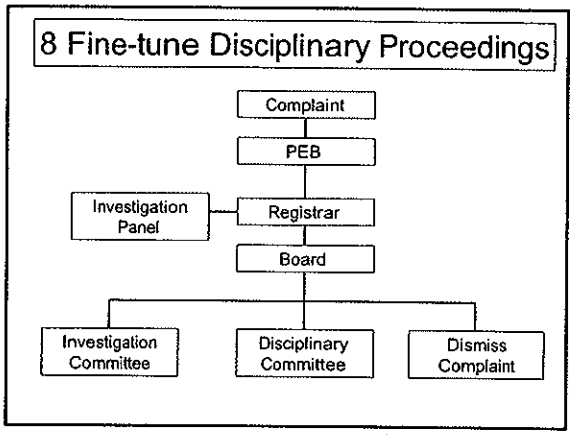
- 10 - 20 registered professional engineers of at least 10 years' standing
- 5 -10 allied professionals or lay persons.

8 Fine-tune Disciplinary Proceedings

Disciplinary Committee

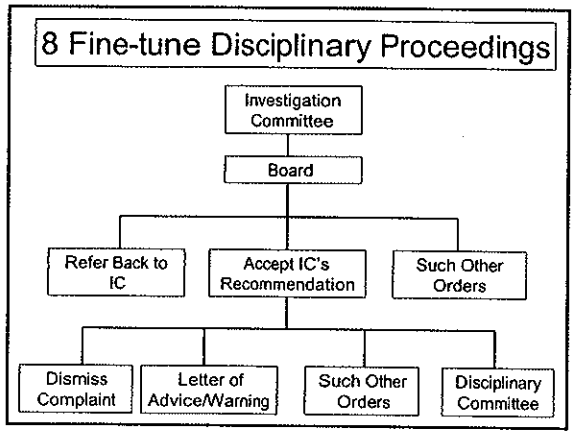
- All members shall be PEs.
- At least 3 PEs of at least 10 years standing and at least 2 of them are to be Board members.
- An observer of the proceedings from the allied professional or lay persons in the Investigation Panel.

8 Fine-tune Disciplinary Proceedings

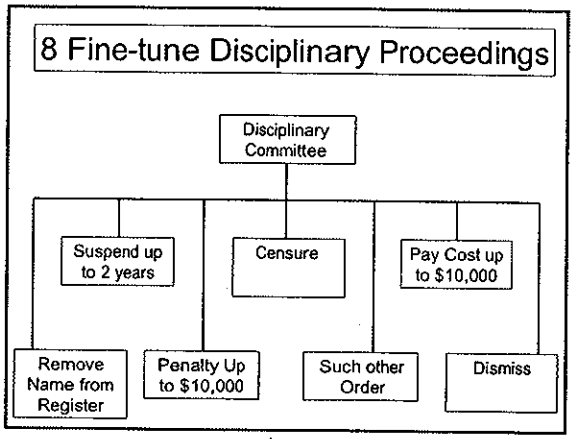


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8 Fine-tune Disciplinary Proceedings



8 Fine-tune Disciplinary Proceedings



Conclusion

Key Areas	Changes
Establishment of the Professional Engineers Board	1 Revise Composition of Boards 2 Introduce Election System
Registration Of Professional Engineers	3 Amend Scope of PE Registration 4 Streamline Registration System for PEs 5 Register PEs with Geotechnical Specialisation
Licensing Of Corporations, Partnerships, LLPs	6 Allow Limited Liability Partnerships (LLPs) 7 Facilitate Start-Ups
Regulating Conduct of Professional Engineers	8 Fine-tune Disciplinary Proceedings

Conclusion

- More effectively regulate and uphold professionalism and safety standards in the construction industry as well as promote engineering services

Enhancing Mobility & Improving Mutual Recognition of Professional Engineers

Enhancing Mobility & Improving Mutual Recognition of Professional Engineers

Dr Lock Kai Sang

Enhancing Mobility & Improving Mutual Recognition of Professional Engineers

- Details of various schemes:
  - Asean MRA that PEB is involved in, together with other schemes IES/ACES are involved in, e.g. APEC Engineer, EMF, WA/EAB, and
- How these schemes would help to lay part of the groundwork for enhancing mobility and improving mutual recognition for our professional engineers in other countries.

Global Economy

- Globalization in economical activities
- Engineering work and engineering services similarly affected
- Employment for engineers – very diverse
- New graduate engineers: NUS ≅ 1400/yr, NTU ≅ 2500/yr, plus overseas graduates
- Small proportion enters construction industry
- Less than 100 new PE each year.

Mobility of Professional Engineers

- Professional engineering work is jealously guarded in each economy
- WTO, FTA, MRA
- Professional engineering services often part of the negotiation of MRA
- Framework or benchmark of substantial equivalence for education qualification and professional experience used for MRA
- G-to-G schemes & NGOs schemes
- Education qualification – WA
- Mobility schemes – ACPE, Asean Engineer, APEC Engineer, EMF

ASEAN Mutual Recognition Arrangement Framework on engineering services

Background

- MTI is the coordinating agency for negotiations on services liberalisation under the ASEAN Framework Agreement on Services (AFAS).
- The ASEAN Co-ordinating Committee on Services (CCS) is the forum for ASEAN members to negotiate with each other to open up their services sectors.
- The original target for CCS was to achieve free flow of trade in services by year 2020.
- In view of the slow pace of ASEAN services negotiations, ASEAN leaders set a new target for CCS to complete mutual recognition agreements for qualification in major professional services by 2008 to facilitate free movement of professionals in ASEAN, with engineering, architectural and accountancy identified as priority sectors to be completed first.

MRA Progress

- Signing of the Engineering Services MRA (Mutual Recognition Arrangement) on 9 Dec 05
- 2 rounds of the meeting of the ASEAN Coordinating Committee On Services* was held in Feb 06 and Apr 06 respectively
- In the Apr 06 meeting, Indonesia, Malaysia, Philippines, Singapore and Thailand indicated their intention to participate in the MRA on Engineering Services
- Participating countries would work on the initial framework for the formation of their respective Monitoring Committees

SALIENT POINTS IN THE MRA ON ENGINEERING SERVICES

- The MRA is a framework which allows a foreign professional engineer (who is a registered professional engineer in his home country) to work in collaboration with a professional engineer (PE) in a host country.
- The framework requires each ASEAN member state to set up a Monitoring Committee to assess its PEs to ensure that they meet the prescribed requirements before they are placed on the ASEAN Chartered Professional Engineers register and allowed to work as foreign PEs.

Requirements of Asean Chartered Professional Engineers

- have completed an acceptable engineering degree program;
- are eligible for independent practice as PEs in their home country;
- have gained a minimum of **7 years** of work experience since graduation;
- have spent at least 2 years in responsible charge of significant engineering works; and
- have maintained a requisite Continuing Professional Development at a satisfactory level in their home country.

Restrictions

- The MRA does not provide the foreign PE engineer with a right to independent practice in a host country. In order to qualify for a right to independent practice, he must meet the professional engineering registration requirements of the host country. This has been provided for in the MRA.
- The MRA requires a foreign PE to apply to the professional regulatory board of the host country for authorisation before he could work in collaboration with a registered PE in the host country. When permitted to work in collaboration with a PE, the foreign PE is required to maintain professional and ethical standards and comply with local rules and regulations.

Implementation

- PEB to set up Monitoring Committee to assess and place our PEs on the ASEAN Chartered Professional Engineers register if they meet the requirements. This will then qualify them to apply as foreign PEs to work in collaboration with PEs in other ASEAN member states.
- The Board will also receive applications from ASEAN Chartered Professional Engineers who are registered in other ASEAN member states and authorise them to work in collaboration with our registered PEs

Washington Accord

- The Washington Accord is a multinational agreement signed in 1989 with the following objectives:
  - recognising the substantial equivalency of accreditation systems of organisations holding signatory status, and the engineering education programs accredited by them; and
  - establishing that graduates of programmes accredited by the accreditation organisations of each member nation are prepared to practise engineering at the entry level.

The current members (at full signatory status) of Washington Accord are as follows:

Country	Signatory Organisation	Entry Yr
Australia	Institution of Engineers, Australia	1989
Canada	Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers	1989
Hong Kong	Hong Kong Institution of Engineers	1995
Ireland	Engineers Ireland	1989
Japan	Japan Accreditation Board for Engineering Education	2005
New Zealand	Institution of Professional Engineers New Zealand	1989
South Africa	Engineering Council of South Africa	1999
United Kingdom	Engineering Council	1989
United States	Accreditation Board for Engineering and Technology	1989

Singapore's participation in WA

- Singapore participated in the Washington Accord through the Institution of Engineers Singapore (IES), with support from the Professional Engineers Board (PEB) and the Association of Consulting Engineers Singapore (ACES).
- IES set up Engineering Accreditation Board (EAB) in May 2002 as a body to accredit engineering programs which are delivered and awarded in Singapore.
- In Jun 2003, IES was accepted as a provisional member of Washington Accord.

Engineering Accreditation Board (EAB)
Members of EAB are drawn from IES, PEB, ACES, NUS and NTU, and they are:

Chairman :	Er. Dr Lock Kai Sang	Immediate Past President, IES Board Member, PEB
Members :	Er. Chua Koon Hoe	President, PEB
	Er. Kok King Hin	Immediate Past President, ACES
	Er. Lee Chuan Seng	Vice-President, IES Board Member, PEB
	Er. Prof. Er Meng Hwa	Acting Provost\Office of the Provost, NTU Board Member, PEB
	Er. Prof. Chew Yong Tian	Past President, IES Board Member, PEB Professor, NUS
	Er. Prof. Ng Wun Jern	Professor, Dean's Office, NUS
	Er. A/Prof Foo Say Wei	President, IES
	Er. Dr C. K. Murthy	Member, ACES
	Er. Low Wong Fook	Member, IES
Secretary :	Er. Ong See Ho	Director, Building and Construction Authority Immediate Past Registrar, PEB

Since EAB started accreditation in May 2002, 4 accreditation visits were completed and 9 programmes accredited:

University	Programme	Accredited for graduates matriculating in year
NUS	B.Eng (Civil)	2002 to 2006
NUS	B.Eng (Computer Engineering)	2004 to 2008
NUS	B. Eng (Electrical)	2004 to 2008
NUS	B. Eng (Mechanical)	2004 to 2008
NUS	B. Eng (Chemical)	2005 to 2009
NTU	B.Eng (Civil)	2003 to 2007
NTU	B.Eng (Computer Engineering)	2003 to 2007
NTU	B.Eng (Electrical & Electronic)	2003 to 2007
NTU	B.Eng (Mechanical & Production)	2003 to 2007

APEC Engineers - Background

- At the APEC leaders' meeting in 1995 at Osaka, there was agreement to the need of facilitating the mobility of qualified persons among the member economies. Consistent with the Osaka Action Agenda, the meeting of 18 member economies of APEC HRD Ministers in Manila in January 1996, the acceleration and expansion of project initiatives on mutual recognition of skill qualifications was urged.
- The APEC HRD Working Group, which met in Wellington, New Zealand in January 1996, agreed to an Australian initiation on the Project, focusing on professional engineering accreditation, recognition and development.
- During the First Steering Committee Meeting held in May 1996 at Sydney, Australia, a consensus was reached to proceed with a comprehensive survey on professional institutions and societies, registration of professional engineers and engineering education and development. The results of the survey would form the framework for the best practices in professional engineering accreditation, recognition and development.

APEC Engineer - Signatories

- Australia
- Canada
- Hong Kong
- Japan
- Korea
- Malaysia
- New Zealand
- Philippines
- Singapore (2005)
- Thailand
- USA

APEC Engineer Register

- The intent of the APEC Engineer Register is to recognise the equivalencies in the qualifications and experience of practising professional engineers in the participating economies and to facilitate trade in engineering services between those participating economies.
- It is anticipated that engineers entered on the APEC Engineer Register will be granted a high degree of mutual exemption from further assessment when practising in any of the participating economies.

Criteria

- An APEC Engineer is defined as a person who is recognised as a professional engineer within an APEC economy, and has satisfied an authorised body in that economy (APEC Engineers Coordinating Committee, Singapore), operating in accordance with the criteria and procedures approved by the APEC Engineer Coordinating Committee, that they have:
  - completed an accredited or recognised engineering program;
  - been assessed within their own economy as eligible for independent practice;
  - gained a minimum of **7 years** practical experience since graduation;
  - spent at least **2 years** in responsible charge of significant engineering work; and
  - maintained their continuing professional development at a satisfactory level.

Code of ethics/conduct

- All practitioners seeking registration, as APEC Engineers must also agree to be bound by the codes of professional conduct established and enforced by their home jurisdiction and by any other jurisdiction within which they are practising.
- Such codes normally include requirements that practitioners place the health, safety and welfare of the community above their responsibilities to clients and colleagues, practise only within their area of competence, and advise their clients when additional professional assistance becomes necessary in order to implement a program or project.

APEC Engineer Coordinating Committee

- An international body comprising one voting member from each Monitoring Committee, and others, to develop and maintain an authoritative Register of APEC Engineers and to promote acceptance of the APEC Engineer.

APEC Engineer Coordinating Committee

- To ensure consistency in application of the agreed criteria, ultimate authority for conferring the title of APEC Engineer will remain with the APEC Engineer Coordinating Committee, which is to include one voting representative from each Monitoring Committee. That authority may be delegated from time to time by the APEC Engineer Coordinating Committee to an authorised Monitoring Committee in each participating economy.
- The main role of the Coordinating Committee is to facilitate the maintenance and development of authoritative and reliable decentralised Registers of APEC Engineers, and to promote the acceptance of APEC Engineers in each participating economy as possessing general technical and professional competence that is substantially equivalent to that of professional engineers registered or licensed in that economy.

Monitoring Committees

- This Framework is based on the concept that a Monitoring Committee will be established in each participating economy, to develop and maintain a Register of APEC Engineers in that economy.
- In most cases, while recognised as competent by, and possibly exercising some functions on behalf of, the authorities responsible for the registration and licensing of professional engineers in the economy concerned, the Monitoring Committee will be an independent authorised body, and will be able to certify the qualifications and experience of individual professional engineers directly or by reference to other competent bodies.

Engineers Mobility Forum

- Singapore (IES) is a provisional member of EMF
- The members of the EMF aim to facilitate international mobility of experienced professional engineers by establishing a framework for their recognition based on confidence in the integrity of national assessment systems, secured through continuing mutual inspection and evaluation of those systems.
- Members of EMF, to the extent it considers appropriate, recognise the substantial equivalence in professional competence and standing of experienced professional engineers licensed, registered or otherwise deemed eligible for independent practice in another economy within which the member organisations have standing.
- EMF members will therefore use their best endeavours to ensure that responsible bodies in the economies within which they have standing to use the International Register as a foundation upon which to enter multilateral agreements, or to conclude bilateral agreements, providing for such streamlined procedures to be adopted on a reciprocal basis in dealing with applications by registrants based in the economies concerned.

EMF Signatories

- Australia
- Canada
- Hong Kong
- Ireland
- Japan
- Korea
- Malaysia
- New Zealand
- South Africa
- UK
- USA

EMF International Register of Professional Register

- provide a framework for the recognition of experienced professional engineers by responsible bodies in each of the member organisation's economies.
- use the Register as a secure benchmark for arrangements, which provide mutual recognition or exemption and/or streamline access by professional engineers to licensing or registration in economies other than that in which they first gained recognition.

EMF Register

- Each EMF Full Member, which has an approved Assessment Statement, will appoint a Monitoring Committee to undertake to develop and maintain a section of the International Register open to practitioners whose qualifications and professional expertise have been assessed
- International Register Coordinating Committee responsible for maintaining standing
- The IES is the assessing body for qualifications and experience required for placement on the EMF International Register of Professional Engineers.
- The structure of EMCS (EMF Monitoring Committee, Singapore) includes representatives engineering institutions in Singapore, namely from government, industry, relevant professional associations, and higher education institutions delivering engineering programs.

Requirements for admission in EMF International Register of Professional Engineers

- EMCS shall grant registration in EMF International Register of Professional Engineers to a candidate if he/she:

i) is eligible for independent practice, being a professional engineer registered with the PEB and having in force a valid practising certificate;
ii) has completed an engineering program which is accredited or assessed to be substantially equivalent to a recognised engineering program;
iii) has obtained at least 7 years of practical experience since graduation;
iv) has spent at least 2 years in responsible charge of significant engineering work;
v) maintains continuing professional development in accordance with the requirements of the Professional Engineers Rules which is administered by PEB; and
vi) agrees to be bound by the Professional Engineers (Code of Professional Conduct and Ethics) Rules which is administered by PEB.

ENGINEERING DISCIPLINES

- A professional engineer may be registered on EMF International Register of Professional Engineers in any one of the following disciplines:
  - CIVIL
  - STRUCTURAL
  - ELECTRICAL
  - MECHANICAL
  - GEOTECHNICAL
  - ENVIRONMENTAL

EMF & APEC Monitoring Committees

Chairman:
Er Lee Chuan Seng
Vice-President, Institution of Engineers Singapore
Board Member, Professional Engineers Board

Members:

Er Ong See Ho, Former Registrar, Professional Engineers Board
Director, BCA

Er Ling Shiang Yun
Council Member, Association of Consulting Engineers Singapore

Er Peter Lee Chung Shek
Member, Association of Consulting Engineers Singapore

Er Tan Seng Chuan
Deputy-President, Institution of Engineers Singapore

Er Chong Kee Sen
Council Member, Institution of Engineers Singapore

ASEAN Engineers

- Initiative of AFEO (Asean Federation of Engineering Organisations)
- IES maintains the register

Conclusions

- Many schemes for benchmarking and mutual recognition
- Each with somewhat different historical background and objectives
- Need to engage in the international arena
- PEB, IES & ACES play respective roles
- Opportunities: greater mobility, greater opportunities
- Challenges: fierce competition inevitable, need to be highly competent professionally & perhaps industry restructuring .