Professional Competences and Global Recognition

Dr. Jim Birch, Head of International Recognition, Engineering Council UK

Statement Reading and Commentary by Nikhat Rasheed

Why register as an engineer?

- Registration is voluntary but valued by employers
- Establishes knowledge and competence
- Commitment to professional standards
- Employers satisfied!

Accreditation Processes

- Applicants who do not have exemplifying qualifications to demonstrate the required knowledge and understanding may do so in other ways, but must clearly demonstrate they have achieved the same level of knowledge and understanding as those with the qualifications. These ways include:

- Writing a technical report, based upon their experience, and demonstrating their knowledge and understanding of engineering principles
- Taking Engineering Council examinations
- Following an assessed work-based learning programme
- Taking an academic programme specified by the institution to which they are applying

Applicants should consult the institution to which they are applying for advice on the most appropriate option.

Standardization Processes

- Standardization of Professional Competences
- What an engineer knows not how he obtained it?

For example: Chartered Engineer – an accredited* Bachelors degree with honours in engineering or technology, plus either an appropriate Masters degree accredited or approved by a professional engineering institution, or appropriate further learning to Masters level or an accredited integrated MEng degree.

*Accreditation of degree programmes is carried out by the engineering institutions licensed by ECUK. The key criterion in accreditation is the **learning outcomes** *(not curriculum only)* achieved by a programme's graduates.

What is competence?

Registration as a Chartered Engineer is open to everyone who can demonstrate competence to perform professional work to the necessary standards, and commitment to:

- Maintain that competence
- Work within professional codes
- Participate actively within the profession

Details available at:
http://www.engc.org.uk/documents/CEng_IEng_Standard.pdf

- Several national engineers' organisations have agreed on the definition of a professional engineer and have done so by means of objective outcome statements

Current Situation

"The current situation is that over a dozen national engineers' organisations have agreed on the definition of a professional engineer and have done so by means of objective outcome statements. This gives an excellent basis on which to develop inter-country recognition of engineers, whether through international registers (as set up by EMF and APEC), bilateral agreements, or as the benchmark for processing individual applicants for national registration/licensure."

Engineers Mobility Forum (1)

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 – rep. by Engineers Australia (1997)
- Canada – rep. by Engineers Canada (1997)
- Hong Kong China – rep. by The Hong Kong Institution of Engineers (1997)
- Ireland – rep. by Engineers Ireland (1997)
- Japan – rep. by Institution of Professional Engineers Japan (1999)
- Korea – rep. by Korean Professional Engineers Association (2000)
- Malaysia – rep. by Institution of Engineers Malaysia (1999)
- New Zealand – rep. by Institution of Professional Engineers NZ (1997)
- Singapore – rep. by Institution of Engineers Singapore (2007)
- South Africa – rep. by Engineering Council of South Africa (1997)
- Sri Lanka – rep. by Institution of Engineers Sri Lanka (2007)
- United Kingdom – rep. by Engineering Council UK (1997)
- United States – rep. by United States Council for International Engineering Practice (1997)

Engineers Mobility Forum (2)

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
- India - Represented by Institution of Engineers India

Question? Why aren't these countries' engineers therefore accepted in Canada and why have their mobility rights been restricted?

The Way Ahead

"By keeping governments out of the picture the IEA ensures that the global process is run by engineers for the benefit of engineers and that any agreement made has buy-in from the national engineer organisations, rather than being imposed from above……. Mobility will be best enhanced by supporting the focussed work of the IEA rather than being buried in wide-ranging GATS discussions. "

An Innovative Idea: World University of Technology

Professor Wlodzimierz Miszalski, President, World Federation of Engineering Organizations – Committee on Education and Training

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World University of Technology (WUT)

- Ease global mobility
- Goal: Preparation of engineers for worldwide mobility
- Unique global mobility curricula

Implementation

- Virtual university -> multi-campus -> single campus full scale university
- Postgraduate courses taught by experienced international engineers
- Suggested discussion by WFEO-CET

PRESENTATIONS SUMMARY

- Engineering organizations have to lead the global mobility movement
- International accords and dialogue are critical to mobility of engineers
- These accords need to be honored by signatories
- An international institution such as the World University of Technology may be one way to go about this
- Indeed, the International Engineering Alliance must be strengthened significantly rather than focusing on inter-governmental accords such as GATS