

**ICE/IStructE/ACED Annual Meeting  
23<sup>rd</sup> April 2014**

**SESSION 3: Accreditation Issues**

**Challenges facing the JBM:**

**An Update by Stephen Garrity**

**Chair, Joint Board of Moderators  
(2014-17)**

## Contents

### SETTING THE SCENE

- A bit about me
- Accreditation: what is it?
- The JBM (A reminder)

### FUTURE CHALLENGES

### Construction Industry Experience (approx. 16 years)

Junior Engineer, A Monk & Company Ltd

*Setting out: buildings in Manchester & Merseyside*

Graduate Engineer, Sir Alexander Gibb & Partners (now Jacobs Gibb)

*Sullom Voe Terminal, Shetland*

*Jubail Industrial City, Saudi Arabia*

Engineer, Bridges Department, Greater Manchester County Council

*Various highway structure design and site supervision projects (as ARE & RE); existing bridge assessments*

Principal, Garrity Associates (consulting engineers)

*Repair & strengthening of structures (UK and overseas)*

### Academic Experience (approx. 22 years)

Senior Lecturer, Bolton Institute (now University of Bolton)

L, SL then Head of Civil & Environmental Engineering, University of Bradford

**now Professor of Architectural Engineering, University of Leeds**

Structural masonry research; President of International Masonry Society

**Professionally qualified:** CEng, MICE, FIStructE, FCIHT

### **Involvement with JBM**

Full Board Member: 2000 – 2006 then 2013 – present

Member of Panel of Moderators: 2006 – 2012

*(participation in accreditation visits only)*

**Chair: from 1<sup>st</sup> January 2014**

Prepared/*preparing* JBM submission documents for Bradford (1999 & 2004) & Leeds (2009 and **2014**)

### **Involvement with ICE & IStructE**

ICE/IStructE nominee: Engineering Council UK-SPEC Output Standards WG (03/4)

ICE Yorkshire Association Committee Member (6 years)

Currently member of ICE Membership Committee

IStructE Yorkshire Branch Chairman (2003/04), past Hon Sec (2 years); past committee member (15 years)

Past Vice-Chair of Exams panel (11 years); Past Member of Applications & Professional Review panel; Led development of IStructE R&D route to membership; Currently member of IStructE Education Committee & IStructE reviewer.

Even more ...

**An experienced, safe pair of  
hands?**

**Time will tell!**

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## Accreditation: what is it?

*“Accreditation is the process of reviewing an engineering degree programme to judge whether or not it meets the defined standards set by the Engineering Council”*

*(source: The Engineering Council)*

- The Engineering Council is “*the UK regulatory body for the engineering profession*”
- The standards are defined in the **UK S** standard for **P**rofessional **E**ngineering **C**ompetence (**UK-SPEC**)
- The JBM makes accreditation decisions and develops policy (and guidance) for HE providers to meet the standards defined in UK-SPEC.
- UK-SPEC is outcomes-based (similarities shared with ABET’s **outcomes based education** and Washington Accord’s **Graduate Attributes**).
- The JBM’s accreditation process complies with that defined in UK-SPEC (see *The Accreditation of Higher Education Programmes* or AHEP)

..... makes decisions about the accreditation of higher education programmes on behalf of its 4 member PEBs (which act under licence from the Engineering Council)

- The Joint Board consists of 12 academic members + 12 industrial members + a chair + the secretariat.
- The chair is appointed for a 3 year period and alternates between an **academic** and an **industrial** member, e.g. **David Nethercot** → **Richard Haryott** → **Jim Croll** → **John Hill** → **Gerry Parke** → **John Roberts** → **Steve Garrity**.
- The chair must be a member of both ICE and IStructE.
- Members are nominated by 1 (or more) of the 4 member PEBs.
- Members normally serve a 3 year term but can serve up to 2 consecutive 3 year terms.
- Past members of the JBM often join the Panel of Moderators (to assist with accreditation visits; not full Board members)

..... also develops policy and guidelines for accredited programmes with further explanation in the annexes, guidance notes and good practice guides

- JBM's **consistent** philosophy over many years: to **avoid over-prescription** in its accreditation guidelines.
- Never been any intention to develop a “national curriculum for civil engineering”.
- JBM guidelines consist of a “**framework**” of 3 core subjects (geotechnics, materials and structures) + 2 more university-defined construction industry-related core subjects + curriculum threads of design, health and safety risk management and sustainability. Supplemented by guidance on field courses; mathematics; surveying; digital technologies; industrial contributions, etc).
- Onus on the University (or other HE provider) to demonstrate how their graduates meet the UK-SPEC output standards within the JBM requirements.
- ***The “framework” has evolved over many years*** through academic and industrial input via the Board and the 4 member institutions.



- The JBM has 3 specialist **sub-committees**:
  - Further Learning Sub-Committee;*
  - International Sub-Committee;*
  - Higher Level and Technician Qualifications Sub-Committee*
- **Working groups** are also established, when needed, to develop policy proposals, update guidelines, develop or update good practice guides, etc.

## NOTES

- JBM does not charge for an accreditation visit (unlike many other accrediting bodies).
- **Cost?** Shared between the 4 member PEBs - seen as an investment in the future.
- The work of the Board (including the chair), Panel of Moderators and the Visiting Teams is **voluntary**.

**The perpetual challenge = Maintaining a “sense of proportion and balance”**

**Recognising that:**

*Not all universities are the same (and “we” don’t want them to be the same).*

*The construction industry is diverse.*

*Graduates need a range of transferable/employability skills.*

*Graduates are not the “finished article”.*

*Some knowledge and skills are best developed in industry (during the period of Initial Professional Development)*

**Seeking to:**

*Avoid over-prescription but provide some guidance.*

*Provide universities with some flexibility to allow them make use of their expertise.*

*Provide universities with sufficient opportunity and encouragement to bring their cutting edge research into the student experience.*

*Continue to encourage, inspire and enthuse students.*

*Meet the changing needs of the construction industry.*

## Future Challenges 2 (Short-term)

1. Helping universities to understand & recognise the significant differences in ethos between IEng and CEng level degree programmes; understanding the very strong synergy between research and Masters level learning.  
*(More universities with experience of running IEng level degrees are seeking to run JBM-accredited MSc and MEng programmes without understanding the differences?)*
2. Providing support and advice, where necessary, whilst maintaining the JBM's accreditation role (again a question of balance).  
*(A small number of universities seem to struggle to understand the JBM's philosophy and guidelines?)*
3. Coping with increasing levels of international activity (*franchised programmes; UK universities with overseas campuses*) set against backdrop of limited resources.
4. Updating JBM website; encouraging more academics to gain an appropriate professional qualification; implementing revisions to UK-SPEC (AHEP – to be issued in May 2014); being aware of possible changes in the international accreditation scenario (and reacting accordingly).

**Questions?**