Welcome

This issue reports on HE-related activity that the Engineering Council has been engaged in since the previous HE bulletin in June as well as wider HE and engineering news that we hope will be of interest.

Please feel free to forward this to colleagues who might be interested. Comments on the HE bulletin and requests to be added to or removed from the circulation list should be emailed to Hermione Cross hcross@engc.org.uk.

From Student to Professional

The Engineering Council’s 2013 registrant survey revealed that universities could do more to raise awareness of the value of professional registration to students, particularly IEng registration.

An Engineering Student’s Guide to Professional Registration has recently been published by the Engineering Council to inform current engineering students about IEng and CEng registration. Developed in consultation with BEng and MEng student focus groups, the guide explains:

- the benefits of professional registration
- the differences between IEng and CEng
- what students can do to prepare for registration
- what graduates need to do to achieve professional registration
- the value of institution membership to students and graduates

A press release can be viewed at: [http://www.engc.org.uk/news-list/guide-to-professional-registration-for-university-students](http://www.engc.org.uk/news-list/guide-to-professional-registration-for-university-students)

The guide can be accessed on the Engineering Council website. Hard copies are available on request from the Engineering Council email: info@engc.org.uk

Professional registration improves the career prospects and earning potential of your graduates, benefiting the reputation of your university and department.

Universities are encouraged to:

- raise awareness of IEng and CEng professional registration
- direct students to Professional Engineering Institutions for information about student membership and registration
- facilitate opportunities for students to meet with Professional Engineering Institution representatives
QAA Consultation on Engineering Subject Benchmark Statement

Readers are reminded that the Quality Assurance Agency (QAA) has been undertaking a review of its engineering subject benchmark statement and invited comments through its online survey before 25 November 2014.

The QAA has worked closely with the Engineering Council during both the review of the 'Accreditation of HE Programmes' (AHEP) document and during the review of the engineering subject benchmark statement.

More information can be found online: http://www.qaa.ac.uk/newsroom/consultations/consultation-on-nine-revised-subject-benchmark-statements

Engineering Gateways News

International recognition of Engineering Gateways degrees

We are pleased to report that the International Advisory Panel of the Engineering Council has confirmed that, for the purposes of international registration, Engineering Gateways degrees can be considered as ‘equivalent’ to accredited degrees that are recognised under the corresponding Accord. This is an important development that enhances the value of an Engineering Gateways degree to individuals who may wish to demonstrate their knowledge internationally, and to employers who value portability in their workforce. Engineering Gateways degrees are not currently accredited due to the bespoke nature of the learning completed by each Gateways learner, but are recognised by participating Professional Engineering Institutions as a planned pathway towards registration.

Northumbria University celebrates CEng success

Lee Carwardine is the first graduate of the Northumbria University MSC Professional Engineering programme to achieve CEng status through the Institution of Engineering and Technology (IET).

Engineering Council CEO Jon Prichard said “Our congratulations go to Lee on achieving professional registration as a Chartered Engineer with the IET. We are sure that he will find that this helps to open many doors and enhance his career opportunities. We would also like to congratulate Northumbria University on reaching this milestone. The university was instrumental in developing the programme so we are pleased to see it now celebrating the success of its first MSc Professional Engineering programme graduate to achieve CEng status.”
EFF joins Engineering Gateways Advisory Group

EEF representation on the Engineering Gateways Advisory Group has been secured. We look forward to welcoming Tim Thomas, Head of Employment Policy at EEF, to the group.

Get involved with Gateways

We are keen for more universities, employers and Professional Engineering Institutions to actively engage with Engineering Gateways.

For more information please see: [http://www.engc.org.uk/education--skills/engineering-gateways](http://www.engc.org.uk/education--skills/engineering-gateways) or contact Catherine Elliott at celliott@engc.org.uk

Key Information Set (KIS) Accreditation Statements

Universities are reminded of the importance of correct use of statements and logos the Engineering Council has issued for use with accredited engineering degrees in relation to IEng and/or CEng registration, for use with KIS and elsewhere. The statements can be found on the Engineering Council website, information about their use was included in our 8th Higher Education Bulletin.

Engineering Accreditation Board Visits

The Engineering Accreditation Board (EAB) facilitates joint degree accreditation visits involving several Professional Engineering Institutions where there is commonality between programmes. Eight EAB accreditation visits have been undertaken so far this year reviewing 155 programmes. Eight visits are scheduled for 2015.

EAB visit documentation is being reviewed to support the 3rd edition of Accreditation of Higher Education Programmes (AHEP). Universities should check the EAB website where new documentation will be published.

Universities seeking joint accreditation visits through the EAB should contact Hermione Cross. We suggest, to enable scheduling, that requests are made a minimum of a year ahead of when a visit is sought.

Intellectual Property Teaching in Engineering

The Intellectual Property Office (IPO) is offering its help and support to the HE sector to ensure that intellectual property teaching is successfully incorporated into accredited degree programmes. This offer has been made following publication of the third edition of the Accreditation of Higher Education Programmes (AHEP) handbook with strengthened references to intellectual property specifically within ‘Design’ and ‘Economic, legal, social, ethical and environment context’.

The Intellectual Property Office (IPO), the government body responsible for intellectual property rights in the UK, would like to discuss with engineering academics the ways in which the IPO can help to embed intellectual property into the curriculum, from gaining access to resources on its website to providing seminars. As part of its commitment to helping the HE sector deliver effective intellectual property teaching, the IPO has recently begun development of an online toolkit aimed at improving both student and academic awareness of intellectual. This learning tool, set to be launched in March 2015, will contain a dedicated STEM section with comprehensive engineering content and a detailed teaching resource library to be used in curriculum design.

If you are interested in finding out more, please contact Matthew Larreta, Senior Policy Advisor at the IPO email: matthew.larreta@ipo.gov.uk
Perkins Review Implementation

Implementation of key recommendations from Professor John Perkins’ Review of Engineering Skills is being led by four Task and Finish Groups focusing upon:

1. Experiencing Engineering in Schools
2. Cutting Edge Skills in Further Education
3. Employer Engagement in Higher Education, including student work placements
4. Specialist Skills (postgraduate)

Engineering Skills: Perkins Review Progress Report highlights progress on key actions

STEM skills and education reports

IET Engineering and Technology Skills and Demand in Industry Annual Survey 2014, explores skills needs, investment in training, and recruitment amongst engineering and IT employers. The report shows an increase in employers reporting issues in recruiting engineering staff, with promotion to graduates being the action most frequently identified as one that employers could take to address any shortage of engineers.

Thinking Like an Engineer: Implications for the Education System, researched by the Centre for Real World Learning, on behalf of the Royal Academy of Engineering, identifies six ‘engineering habits of mind’ and suggests how the education system could help future engineers to develop these habits. The report considers HE and FE engineering education as well as the impact of school teaching methods upon young people’s decisions about whether to study engineering.

The Universe of Engineering report highlights the importance of engineering to the UK economy and presents a number of strategic long term recommendations for the engineering community.

Student Employability Index 2014 Part Two explores students’ expectations of employment after graduation, and factors that affect their decision making. Engineering and technology students were more likely to state that the job prospects (76%) and employment destinations (79%) were important when they choose their institution and course than for students in other disciplines.

Talent 2030 sets out and shows initial progress against targets to encourage more young people, especially 11-18 year females, to study subjects such as maths, science and engineering, as a means of increasing the pipeline to engineering and manufacturing careers. The report shows there was little change from 2010/11 to 2012/13 in the proportion of women studying engineering and technology related courses at most levels of education.

Improving the Quality and Quantity of Graduate Level Skills considers the graduate level skills supply for manufacturing employers. Growing demand for engineering graduates is reported and challenges associated with the supply of graduates are considered, with recommendations made to address these.

HEFCE data and report

HEFCE has published interactive data on numbers studying at postgraduate, undergraduate and A’ level. The data highlights 2012-2014 acceptances to study STEM subjects at undergraduate at the highest level ever recorded.

National Student Survey results and trend analysis reveal that engineering and technology students have a slightly lower average ‘overall satisfaction’ than students across all disciplines.

International Comparisons in Postgraduate Education: Quality, Access and Employment Outcomes compares postgraduate education in England with that in Scotland, Australia, Germany, India, Norway, Spain and the USA. Quality, access and employment outcomes are identified as the core themes, with much other information of possible interest including comparison of funding regimes.
HE Funding Bodies to consult on assessment of quality in HE

HEFCE and the Scottish Funding Council both propose to consult in the coming months on new arrangements for assessment of quality in HE. The Engineering Council has close interest in the quality of HE, particularly with respect to the QAA’s subject benchmark statement and the use of QAA’s institutional reports as part of accreditation evidence, and will be responding to the forthcoming consultation.

Engineering Professors’ Council student competition

Undergraduate and postgraduate students are invited to answer the question ‘can engineers make a contribution to society?’ in up to 1,500 words plus a short video. Sponsored by The Incorporation of Hammermen of Glasgow, the winner and two runners up will receive a cash prize and the opportunity to speak at the EPC Congress in April. The closing date for this competition is 9 January 2015.

Upcoming Events

European Society for Engineering Education (SEFI) Annual Conference, Polytech’ Orleans France, 29-2 July 2015. ‘Diversity in engineering education: an opportunity to face the new trends of engineering’ is the theme of the 43rd SEFI annual conference. Multiple aspects of diversity will be considered:

- diversity of pedagogic approaches to improve teaching efficiency
- diversity of teaching to yield actual multidisciplinary courses
- diversity of academic paths, to match the reality of population diversity at work
- woman-man mixing during scientific studies
- social diversity, considering engineering studies as a vector for social advancement.

The deadline for abstracts submission is 19 January 2015.