An important milestone in the development of the Engineering Gateways scheme has been achieved with IET member Richard Green becoming the first graduate of the flexible work-based MSc Professional Engineering to gain Chartered Engineer (CEng) status. Richard graduated from Kingston University in 2011 and was also able to use work from this degree together with the competences he acquired through work to apply to the IET for his professional review interview for CEng.

Richard said: ‘The combination of vocational and academic study has really contributed to my success, allowing me to apply theory to practice and vice versa. This work-based model of education is very rewarding and provides skills and knowledge that are not easily delivered in the class-room’

Richard currently works for Eggborough Power Ltd as an Engineer, specialising in life extension projects, in particular emissions reduction and renewable power. Not only the first engineering gateways CEng, and one of the youngest to qualify, Richard has demonstrated very clearly that a progressive pathway to professional qualification can work. He completed an Advanced Apprenticeship, studied part time for an ONC and two HNCs, and then took two part time Bachelors degrees in Mechanical Engineering and Business Management at Hull.

As Michelle Richmond, Director of Membership and Professional Development at the IET commented: ‘Richard is an outstanding engineer, who demonstrates what can be achieved when a committed individual is offered the right opportunities.’

In congratulating Richard, Jon Prichard, CEO of the Engineering Council, noted that in addition to Richard’s own hard work, his success has been made possible by the valuable contribution of all the partners in the Engineering Gateways programme – employers, universities and professional engineering institutions.

Since Richard was awarded his certificate, a second Kingston University graduate and IET member, Cliff Gillis, has been awarded CEng status. Cliff is an Engineer with Perkins Engines, part of the Caterpillar Group, and highly skilled in the use of virtual reality and augmented reality in manufacturing.

The full press release can be found at: http://www.engc.org.uk/news-list/gateway-to-success-for-first-chartered-engineer
Five universities sign up to adopt Engineering Gateways practice

News that the Engineering Council has been awarded a ‘practice transfer partnership’ by the National HE STEM Programme was announced in the last e-bulletin. Work is underway to develop a toolkit for universities wishing to adopt the Engineering Gateways work-based framework. Five universities are participating as ‘adopters’ of this practice: Coventry, Derby, Greenwich, Leeds Metropolitan and the University of the West of England. Hal Igarashi is acting as the projects’ facilitator on behalf of the HE STEM programme.

Research has been completed into what the adopters perceive will be the issues and challenges in implementation. Universities already offering the degrees have contributed to research into critical success factors, and are providing material and suggestions for what a start-up toolkit might look like. Mentoring partnerships have been established between existing providers and adopter universities, and case studies of the ‘adopter journey’ will be developed.

The toolkit will be written in a checklist style with links to further information and downloadable ‘print on demand’ supporting materials. Separate sections will cover the headline challenges, such as developing the business case, securing internal validation and recruitment, that are set in the context of HE procedures for establishing such programmes. Work on the toolkit is being supported by the Centre for Engineering and Design Education at Loughborough University.

The final toolkit will be available in the Summer, and there will be a presentation about the work at the HE STEM conference in September.

For further information on the practice transfer partnership or the Engineering Gateways work-based degree programmes, contact Deborah Seddon at: dseddon@engc.org.uk

Adopters’ challenges

Research into the five adopters’ perceived challenges found that:
● whilst work-based learning (WBL) is recognised as potentially resource intensive, adopters had few concerns about costs and viable numbers;
● all have some experience of distance-learning or WBL, so none anticipates significant problems relating the new programme to existing university philosophy;
● all five adopters have mechanisms and experience of APL/APEL for WBL;
● all have well-tried mechanisms for assessing project work;
● ensuring support mechanisms for students was not a concern.

Some of the adopter universities have solid experience of working with mentors, however most perceived the recruitment and management of company-based mentors as a challenge. Some have already worked out how to align individual outcomes to defined course modules, whilst others would welcome help with this. Other challenges mentioned included:
● implementing IEng programmes, perhaps because individuals are likely to come from a more diverse education background, though these could be of greater interest to SMEs;
● future accreditation.

Key elements identified for the toolkit for new adopters were: mutual support and sharing experience, references to background publications to help in planning and development, and checklists. All of these will be covered by the practice transfer partnership.
THE WORK-BASED ROUTE TO PROFESSIONAL QUALIFICATION

University participants’ news

Kingston: there are now eight MSc Professional Engineering graduates, two of whom have obtained CEng. (see above)

Aston: the BEng Professional Engineering (Power Systems) is in its second year and a further 24 UK-based students enrolled in September 2011. Aston is looking for more ‘Professional Supervisors’ and would be pleased to hear from anybody who might be interested in undertaking such a role. Please contact c.winder@aston.ac.uk

There are now 40 individuals world-wide enrolled on the MSc Professional Engineering. A number of Chinese universities and employers have expressed interest in developing similar types of programmes in collaboration with Aston. Interest in several other countries is also being followed up.

Cardiff: three students are already enrolled on the MSc programme, two who will be going through IET and one through IMechE. Staff are now looking to follow-up the numerous expressions of interest that have been received over the last four months.

Glamorgan: interest is developing in the recently launched MSc Professional Engineering. There are already a couple of interested candidates, one with the IMechE and one with CIBSE, and university staff are meeting a local company shortly to brief them about the possibilities.

Institute of Materials, Minerals and Mining (IOM3) and the Institute of Water (IWater)

IOM3 and IWater have become the latest Professional Engineering Institutions (PEIs) to become involved in the Engineering Gateways initiative. This brings the number of participating PEIs to 15. A full list of participating organisations can be found on the right hand side of this page.

Employer involvement

A list of organisations with employees enrolled on Engineering Gateways-type degrees can be found on the Engineering Gateways website:

http://www.engc.org.uk/engineering-gateways/Information-For/employers.aspx

Want to get involved?

If you’re an employer or an employee looking for an Engineering Gateways degree, you should contact one of the existing providers, listed on the right-hand side of this page. They can be contacted via the participating universities page of the website http://www.engc.org.uk/engineering-gateways/universities

If you are interested in making contact with one of the five new ‘adopters’, please get in touch with Deborah Seddon at the Engineering Council dseddon@engc.org.uk

One of the requirements is that the employee should be a member of a participating PEI as this ensures access from an early stage to support and advice about achieving professional registration.

The Engineering Gateways Project is part of a project initially funded under the government’s DIUS-funded ‘Gateways to the Professions’ initiative. It aims to provide a route to professional qualification for working engineers without the full exemplifying qualifications who are unable to commit to full-time study. Employees are able to demonstrate the required competences for professional registration (UK-SPEC) at the same time as meeting the learning objectives for an academic qualification.