

World's first construction engineering doctors prosper

The world's first four doctors of construction engineering have all secured high-level posts within their sponsoring organisations. **Chimay Anumba** of Loughborough University's Centre for Innovative Construction Engineering reports.

Four construction engineers were awarded the prestigious degree of Doctor of Engineering (EngD) at Loughborough University's winter graduation ceremony in December 2003. They are the first students in the world to graduate with an EngD in construction engineering and all have now been appointed to senior positions within their sponsoring organisations.

The four represent the first cohort to graduate from the four-year construction engineering doctorate programme run by the University's Centre for Innovative Construction Engineering. The UK's Engineering and Physical Sciences Research Council established the centre in 1999 along with four engineering doctorate centres, though it is the only one dedicated to the construction industry.¹ It has over £4 million funding from the Council and 30 industrial sponsors.

Cross between an MBA and PhD

The engineering doctorate is a postgraduate award intended for the UK's leading research engineers who aspire to key managerial positions in industry. The first four graduate theses were as follows.

- *Development of an integrated business improvement system for construction*, by Simon Beatham, sponsored by AMEC.
- *Improving design management technique in construction*, by Lee Bibby, sponsored by Skanska.
- *Detection of reinforcement corrosion by an acoustic technique*, by Matthew Ing, sponsored by Balvac (a division of

Balfour Beatty).

- *The application of visualisation techniques to the process of building performance analysis*, by Matthew Pilgrim, sponsored by Arup.

Commenting on the programme, Dr Beatham said: 'It was a fantastic experience. The development of the project within the industrial context has meant that I haven't been labelled 'an academic' and can demonstrate the practical applications of the project as used by the industrial sponsor.

Returning to work has therefore been far easier than if I had completed a traditional PhD. The cross between an MBA and a PhD enabled me to develop specific business skills, which are now being used in my new role, as well as developing the academic skills needed to provide validated solutions to business problems.'

Of his study over the last four years, Dr Bibby commented: 'The four years of the EngD programme has been a very valuable experience. It has allowed me to make major strides in my career while providing me with significant qualifications. I have had the opportunity to develop skills, approaches and knowledge in relation to real industrial problems, which are vital to my new role.

As I was working within the industrial sponsor's organisation, I obtained a much deeper understanding of the issues surrounding design management and improving business practice than I would have through a traditional PhD. Furthermore, regular contact with company directors and industry leaders has been an excellent introduction to implementing strategic change programmes.'

Senior level appointments

All four graduates have secured jobs at a senior level within their sponsoring companies or other companies. Dr Beatham is now working as an operations director at AMEC, Dr Bibby is a design manager at HBG



The world's first four doctors of construction engineering (left to right): Lee Bibby, Simon Beatham, Matthew Pilgrim and Matthew Ing—all have now secured senior posts within their sponsoring organisations

Construction, Dr Ing is a technical manager at Balvac and Dr Pilgrim is a solutions developer at FaberMaunsell. Prior to starting the engineering doctorate programme they were, respectively, a senior quantity surveyor, a structural engineer, an undergraduate student and a graduate engineer.

For further details about the engineering doctorate programme at Loughborough University, visit <http://www.cice.org.uk>.

Reference

1. Anumba C. New centre offers world's first construction engineering doctorate qualification, *Proceedings of the Institution of Civil Engineers – Civil Engineering*, **138**, May 2000, page 56

FOR FURTHER INFORMATION CONTACT

CICE Administrator

TEL +44 (0) 1509 228549

EMAIL cice@lboro.ac.uk