

THE WOMEN IN ENGINEERING PROGRAMME

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At a Women in Engineering workshop held at Brunel University in March, engineering employers were represented by BAESystems, Ford, Mabey, Millbrook, Network Rail, Robert Bosch Group, Lucy Switchgear and Cavendish Nuclear Ltd.

Engineering contributes a huge amount to the UK economy: £1.06 trillion in turnover for the year ending March 2011, which is nearly a quarter of the turnover of all UK enterprises. Some contribution is from manufacturing, which makes up almost half of UK exports, and accounts for 72% of UK business research and development. However, there is more to engineering than manufacture. It also includes all the operation and maintenance of society's infrastructure, such as energy, communications, transportation, mining, construction, property, defence and emergency services.

The Royal Academy of Engineering has estimated a need for 100,000 STEM graduates each year to serve all these various sectors, which represents a shortfall of about 10,000. The fact that the female half of the population has not traditionally pursued engineering careers, and women are not very

much in evidence in industry, is something Brunel University's *Women in Engineering* programme addresses. This programme has been enabled by funding and support from a number of sources including the Higher Education Funding Council for England, the Babcock International Group, the Institution of Mechanical Engineers and TWI Ltd.

Jobs for engineers are there, and they pay well. According to EngineeringUK, engineering enterprises predict having 2.74 million job openings during this decade to 2020. The starting average salary is £27,415 for those who go to work for engineering companies rather than for non-engineering companies (which is 15.7% more than the mean for all graduates, and less than only those in medicine and dentistry). It is worrying to find from the HESA statistics that only 51% of female (compared with 68% of male) STEM graduates continue

into STEM roles. The pipeline is leaking!

From the point of view of a 14-year-old girl considering careers in school, the problem is that there are very few women in evidence in engineering, and a very small number at the top of their profession (however that might be defined by our teenager). The *Women in Engineering* programme aims to support women who have

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graduated in engineering, and want to develop the necessary business acumen and leadership skills to propel them up their career path, whilst they are studying for their MSc degree. Through contact with industry, networking and visiting sites, they will have the opportunity to get a better understanding of the roles available to them. As well as benefiting the individual women who participate in the programme, this will give those

in school thinking about careers some excellent female role models with whom to identify. The engineers will be required to participate in promoting the profession, in line with the requirements of Engineering UK's *Standard for Professional Engineering Competence*.

To encourage women engineers who are eligible for UK/EU fee status to join the programme, Brunel is offering 40 scholarships, covering tuition fees and a living allowance of £15,000 for the academic year 2014-15. As well as qualifying for a place on one of the selected MSc courses, applicants must provide a personal statement which demonstrates their commitment to their chosen engineering profession. Priority will be given to those who have not studied beyond Bachelor's degree level before, and to those who have worked (paid or unpaid) preferably in the sector of their professional studies.

Reception of the *Women in Engineering* programme has

been overwhelmingly positive since its launch in January, and it is anticipated that we will see more women engineering graduates from Brunel University in 2015 than ever. There will be many opportunities for engineering enterprises to promote themselves to the graduates. If you are interested in supporting this initiative, please contact womeninengineering@brunel.ac.uk.