

‘Getting girls into engineering and women onto engineering degree courses’

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Abstract: This workshop is intended to engage engineering lecturers, colleagues from widening participation units within universities who are currently running engineering outreach activities or public engagement programmes and/or faculty management within the home institution, in a discussion around the issues of attracting girls and women into engineering. The session would also be relevant for engineering postgraduates and undergraduate students involved in engineering outreach or public engagement. During the session we will explore these issues, as well as address people’s concerns about working in this area.

The London Engineering Project (LEP) team in partnership with the UKRC for Women in SET developed training approaches to help colleagues working on the project to understand the issues around gender awareness in engineering and developed training for the different audiences involved in the project. This included training for LEP fieldworkers, engineering lecturers, practising engineers (STEM ambassadors) as well as student ambassadors.

During the session we will share with you some of the approaches that we developed to help explore the areas for discussion. Colleagues who attend this workshop will be encouraged share their own experiences and successes, learn from our mistakes and successes as well as explore the issues around getting girls into engineering and women onto their own engineering degree courses.

Introduction

We need more women and girls to choose engineering as a career as we have an acute shortage of qualified people and the increasing demand for scientific and engineering skills is threatening the UK’s productivity, competitiveness and level of innovation. This shortage is compounded by the high leakage rate of SET graduates to other sectors where their skills are equally valued.

Although the number of women in science, engineering and technology careers has increased dramatically over the last ten years, they still account for just 18.7% of the workforce within the SET sectors (Institute of Employment Studies, 21 February 2005). We need to attract more women and girls into the engineering profession and universities can help to attract more women and girls onto engineering degrees and increase the number of women joining the engineering workforce.

This workshop is intended to engage engineering lecturers, colleagues from widening participation units within universities who are currently running engineering outreach activities or public engagement programmes and/or faculty management within the home institution, in a discussion around the issues of how to attract more girls and women into engineering. The session would also be relevant for engineering postgraduates and undergraduate students involved in engineering outreach or public engagement. During the session we will explore these issues, as well as address people’s concerns about working in this area.

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Outline of Workshop

0-05 minutes	<p>Introduction and outline of the session</p> <ul style="list-style-type: none"> • Short introduction from each delegate and the workshop leader. • Outline of 'why we need more women/girls to choose engineering as a career'. • Quick outline of the rest of the session
05 – 25 minutes	<p>What the barriers for girls/women going into the engineering profession?</p> <ul style="list-style-type: none"> • An opportunity for participants to explore the reasons why some girls/women choose not to study engineering or enter the profession after graduation. • Delegates will be asked to discuss why they think girls/women choose not to study in small groups and asked to feedback some of the issues and the reasoning behind them to the whole group.
25 -45 minutes	<p>How do we attract girls/women into engineering?</p> <ul style="list-style-type: none"> • A chance to share and explore effective practice, successful outreach, teaching styles, educational practice and degree program that engage girls/women in engineering. • Input from the workshop leader on how the LEP approached attracting girls into engineering using examples/hand outs and case studies. • Workshop leader to encourage others to input and share their own experiences and effective practice
45 – 60 minutes	<p>Can diversity training help to create change in practice and/or attitudes?</p> <ul style="list-style-type: none"> • A discussion aimed at exploring the idea of using training as a tool to help engineering departments change their practice to help make their own work more inclusive or gender neutral. • Workshop leader to ask delegate to discuss these ideas in small groups and feedback to the whole group, reinforcing ideas with examples from the LEP.
60 – 80 minutes	<p>What are the solutions?</p> <ul style="list-style-type: none"> • Delegates will have the chance to discuss the possible solutions for creating change through changing policy and practice. As well as discuss what colleagues can easily change to make their work more inclusive. • Workshop leader to lead write up of delegate ideas on a flip chart arising from a whole group discussion, reflecting on the pervious conversations and activities.
80-90 minutes	<p>Summary & Feedback</p>

A number of examples of work undertaken by the London Engineering Projects partners and fieldworkers will be available for reference. Copies of the London Engineering Project evaluation report, case studies and 'Getting Girls into engineering' publication will be available free to the attendees. These documents are also available online at www.thelep.org.uk

The outcomes of this workshop will be captured to share with conference attendees.

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