

# Diversity in Engineering

**Update October 2012**

Welcome to the second update from the Diversity in Engineering programme.

These updates will be produced twice a year to keep all stakeholders and interested parties up to date with activities and progress. To find out more, email [diversity@raeng.org.uk](mailto:diversity@raeng.org.uk) or telephone Bola Fatimilehin or Jenny Young on 020 7766 0600

## **Introduction to the Academy diversity programme**

Our diversity brief from the Department for Business, Innovation and Skills (BIS) challenges us to lead the 'mainstreaming' of diversity in all its aspects across the engineering profession. We are currently in the second year of a four-year programme.

The first year of the programme has been used to establish productive links with key stakeholders, to proactively collaborate with partner organisations and to initiate activity that will supplement the existing literature and evidence available surrounding diversity.

## **Pilot projects**

We are funding three pilot projects as part of the programme. All are now running, with completion due by September 2013.

### Access to civil engineering careers via the apprenticeship route

This pilot is being run by the Institution of Civil Engineers (ICE) and Mott MacDonald representing the London Apprenticeship consortium, a collaborative project in its first year involving six engineering consultancies (Mott MacDonald, Halcrow, Arup, WSP group, Hyder Consulting and Capita Symonds), ICE, South Thames College, the National Apprenticeship Service (NAS) and Transport for London (TfL). The baseline report for the project has been produced, examining existing literature and data around apprenticeships with respect to social disadvantage. The project is now entering its research phase of interviews with employers and apprentices.

### Lapsing membership and poor retention

This pilot is a collaborative project between the Institution of Mechanical Engineers (IMechE), the Institution of Engineering and Technology (IET) and the Royal Aeronautical Society (RAeS). It aims to build a better understanding of the reasons behind lapsing participation and poor retention in engineering institutions – and the wider profession. The project has conducted initial analysis of drivers behind lapsing membership in the three professional bodies. The research phase has been scoped with TBR being contracted to conduct the detailed surveying required. Interviews with lapsed members and corporate partners of the institutions will be conducted over the next three months.

### Proactive membership

This pilot is being run by the Institution of Chemical Engineers (IChemE) using a best practice example put forward by The Royal Academy of Engineering. The IChemE plans to create a Proactive Membership Committee with the aim of increasing the diversity of chartered chemical engineers. The main role of the committee will be to ensure that IChemE membership better reflects the society within which the IChemE exists in terms of diversity.

The project has established its baseline data analysis and is now enlisting ambassadors from regional networks who will be paired with individuals who have been identified for progression support.

## **Engineering diversity concordat**

The Academy is leading the development of a Concordat for the engineering profession, primarily aimed at professional engineering institutions (PEIs). The framework is a call to action that sets out a minimum level of data collection, monitoring and action that would take place within any signatory organisation. It would also be an enabler towards the collation of overall diversity statistics for the engineering profession. Detailed content of the concordat is being refined through a working group, a subset of our diversity steering group.

## **Qualitative research - black and minority ethnic (BME) and disadvantaged socio-economic background (SEB)**

This research is being carried out in the knowledge that more evidence is required to effectively address the underrepresentation of BME people and people from disadvantaged socio-economic backgrounds (SEB) – particularly as regards membership of professional bodies (PBs) and employment.

The Academy has recruited a team of researchers from Hertfordshire University led by Dr Cynthia Forson. The research team has conducted a literature review and has run a wide range of stakeholder interviews with relevant bodies from both engineering and diversity fields. They are now

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preparing for detailed focus groups with individuals from backgrounds spanning the engineering and diversity areas of interest.

Many thanks to all who expressed interest in taking part in this research following the April newsletter.

## Working with stakeholders

The programme steering group is made up of key stakeholders and is chaired by Professor Dame Wendy Hall FREng FRS. The emerging membership comprises representatives from several of the PEIs, BIS, Engineering Council, industry and other professional bodies including the Royal Society. The group takes a strategic view of the overall programme and is a key enabler to achieving our aims through a collaborative approach. The group meets twice a year, most recently in May 2012.

Having spent the first year of the programme building links with the community of engineering professional bodies we are now actively looking to extend our reach to industry. In addition to inviting several industrial representatives to the May steering group, we have held a number of exchange sessions with several engineering companies to explore areas of mutual benefit and are keen to continue this sort of engagement throughout the remainder of the programme.

## Quantitative data investigation

Our approach in this area has been to undertake analysis to supplement what is already available from other organisations such as EngineeringUK by filling gaps'. We are concentrating on investigation in the following areas: engineering and diversity content within the *Labour Force Survey*; engineering-specific data for Higher Education; schools data to consider diversity with respect to the engineering pipeline (this is being worked jointly with the Education 4 Engineers forum, a collective group formed by the 36 PEIs for which the Academy provides the secretariat).

We will be holding a data dissemination event on 31 October, in conjunction with the Royal Society. Details will be available on our website.

## STEM disability committee

STEM DC is a cross-STEM collaborative group of professional bodies, including the Academy, which considers practical ways to improve policies, practices and provision for disabled people. It exists within the wider picture of diversity in STEM but has specific focus on all aspects of disability. Its area of interest

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spans the whole STEM pipeline, including those aspiring to a STEM career as well as those already employed in a STEM role.

Since the April newsletter, the STEM DC website has been launched at [www.stemdisability.org.uk](http://www.stemdisability.org.uk) so please have a look at what is there.

In June, the Academy hosted a dissemination event for the first completed STEM DC project, to create Physics and Engineering signs for British Sign Language. Delivered by a team at the Scottish Sensory Centre, University of Edinburgh, the project created over 100 new signs to make these STEM subjects more accessible to signing students. The event was a lively occasion showing the signs in action and attracted a wide audience from students, teachers and those supporting disabled students.

For more information and our press release, please see [http://www.raeng.org.uk/about/diversity/news\\_events/default.htm](http://www.raeng.org.uk/about/diversity/news_events/default.htm) or the New Scientist press feature <http://tinyurl.com/8tur2bq>. This project was funded jointly by the Royal Academy of Engineering, the Institute of Physics, the Royal Society and the Institute of Physics & Engineering in Medicine.

## Academy activity

Following our SET Fair award in February, the Academy is now pursuing a programme of internal action planning to address the report findings. As part of that, we have re-established lunches for our female Fellows with the first held in September. Hosted by our President, Sir John Parker, the lunches provide a unique networking opportunity for our female Fellows and allow a key underrepresented group within the Fellowship to be engaged and consulted firsthand.

## Diversity resources

The Academy diversity pages are updated on an ongoing basis to include more relevant reference material. We have now split the information into separate strands to make it easier to navigate

<http://www.raeng.org.uk/about/diversity/resources/default.htm>

If you have any reports or case studies you would like to share, please send them to [diversity@raeng.org.uk](mailto:diversity@raeng.org.uk)

If you would like to follow up on any aspect of our diversity work, please do not hesitate to contact either Bola Fatimilehin (0207 766 0656) or Jenny Young (0207 766 0621) or email us at [diversity@raeng.org.uk](mailto:diversity@raeng.org.uk)

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