

Where are the future engineers?

It's not only in the UK that we see a shortage of engineers but it's a growing global issue. In the UK alone there is an estimated annual shortfall of up to 59,000 engineers and the transport sector is a major portion of that number. It's great to see that at the IRSE we have a thriving Younger Members Section and a competency development scheme which all helps those who are already interested in Engineering as a career.

One aspect of how we address this issue is featured in this edition of IRSE News (page 4) – the STEM initiative – which in the UK seeks to engage with children in schools and other events to showcase what engineering is about and how exciting it can be as a future career. Furthermore, 2018 is the "Year of Engineering", an exciting opportunity to celebrate the great contribution that engineering makes to the UK and encourage young people, especially those from under-represented backgrounds, to join the profession. Led by the Department for Transport, the government will be supporting events and campaigns across the UK during 2018 which gives young people



inspiring, hands on experiences, of modern engineering and eliminates misconceptions among parents and teachers about engineering careers. This could not have come at a more crucial time as we have seen a 24% drop in the number of apprenticeships offered across the professions. To further promote apprenticeships and reverse this trend, the Strategic Transport Apprentice Task Force (STAT) which is an alliance of transport sector companies, with government support, has been established.

It's not just about young people but also that of gender; 92% of the engineering population in the UK are male and at the apprentice level the figure is only slightly

less. In order to ensure innovation and creativity, the railway sector needs to tap into the whole population, reflecting the diversity of the people it helps move around the country. I think the article in this edition which tells the story of Women in Signalling is very interesting and relevant as we seek to promote our profession to a wider community.

To meet the transport challenges of the future, of which signalling, traffic management and communications systems are key foundations, I believe we must build a workforce where a diverse group of people can shine, be creative and step up to find solutions to the complex issues we face. We have been presented with a once in a generation opportunity to promote and celebrate the best of engineering, overcome the preconceptions about the discipline, demonstrate the social impact and value that engineering plays in society, addressing under-representation, and inspire more young people to become engineers and to shape the future of the profession.

George Clark, Vice President, IRSE

Cover story

Our front cover shows Rhyl No 2 signal box in Wales, UK. Dating to 1884, and similar in design to the No 1 box on the other side of Rhyl station, the signal box was shut in 1990. Both signal boxes are Grade II listed buildings, and so despite being out of use they cannot be demolished. No 1 signal box shut in April 2018, along with six other mechanical signal boxes, when

control for the route transferred to the Wales rail operations centre, 180 miles (290 km) away in Cardiff. Siemens Rail Automation commissioned their digital modular signalling solution at significantly lower cost than conventional UK signalling. Bidirectional signalling is also provided, hence the LED signal seen to the east of No 2 signal box in the photo.



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