

ENGINEERING FOR PEOPLE

DESIGN CHALLENGE



Take part in an award-winning initiative that gives your students the engineering skills they need to address global challenges.

CREATING GLOBALLY RESPONSIBLE ENGINEERS

Engineering plays a pivotal role in everyday life and underpins our response to the global challenges of the 21st century, including rapid population growth and urban densification, poverty, food security and water scarcity. Developing engineering skills and a globally responsible mindset, which considers the human and environmental components of design, is critical as we move forward to a resilient future.

These skills are also seen as vital to employers, as more and more firms are highlighting the importance of the next generation of engineers having an understanding of sustainability, how to respond to and manage uncertainty, how to drive improvements, ethical practice, and practice independent judgement.

The Engineering for People Design Challenge prepares the future engineering professionals to do just that. Every year, over 7,000 students participate in the Design Challenge in South Africa, UK, Ireland and the USA to understand the importance of globally responsible engineering and develop the professional skills needed to successfully enter the workplace.

The Engineering for People Design Challenge introduces these concepts to undergraduate students in the early years of their degree, through an innovative and hands on application of the design cycle. Embedded into first- and second-year* undergraduate curriculum, over 50,000 students have taken part since the programme was launched in 2011. *and third-year in South Africa and Scotland.

The programme encourages students to:

- Demonstrate a real understanding of the social, environmental, economic, and ethical implications of engineering alongside technical skills.
- Work on real-world issues and putting people at the forefront of design.
- Demonstrate ability to understand context.
- Develop their ideas and independent judgement.

THE CHALLENGE

At the end of the programme, there is an initial assessment by academics, who nominate the top design ideas from their university, these design ideas then progress to the reviewer phase where our expert pool of reviewers from the Engineers Without Borders community, whittle the reports down further.

To discover the award winning designs the top teams from each participating university are invited to showcase their ideas to industry judges at an inter-university Grand Finals event.



“I now understand there is a lot more involved in the process of implementation than just the design.”

Student Participant

KEY FEATURES



A design brief developed with a partner on real challenges in their community and opportunities for international collaboration and sharing of ideas.



All of the top five student submissions at each university are reviewed by our 200+ volunteer reviewers from 33+ countries around the world to provide professional feedback to the students.



Access to an online portal that includes the design brief, photos, case study video interviews, and a discussion forum.



A lecture and/or workshop to your students. Training, resources and a forum for academics. Open to all students (typically engineering or related disciplines).



Attendance at the Grand Finals for you and at least one team from your university.

LEARN MORE

To find out more [read the full university participation guide](#). This guidance document provides an outline of the programme, the requirements for participating and what support your university can expect from your Engineers Without Borders partners throughout the design challenge.

Students who participate in the design challenge experience a number of benefits, but so do academics. Our approach also provides a great opportunity for university academics to experiment with and embed this high-impact pedagogy in their teaching, transforming their approach to educating the next generation of engineers.

EDUCATIONAL CONTENT

Each year, we work to create an engineering design brief with supporting case studies and resources based on a real community. The brief is delivered to students through an online portal along with a discussion forum and submission space, which is suitable for a remote delivery launch lectures, training, and events, which can be online or delivered in person.

HOW TO PARTICIPATE?

Participation is simple and flexible. The Engineering for People Design Challenge can be run in an existing first or second-year course*, or launched as a new module, the choice is yours. It can be easily delivered in a team design module within the existing curriculum, replacing the old brief with this new, real-world one. We are always on hand to support you and guide you through the process. Contact us to get started! *or third-year in

South Africa and Scotland.

CONTACT

For more information, please visit the website: www.engineering-for-people.org

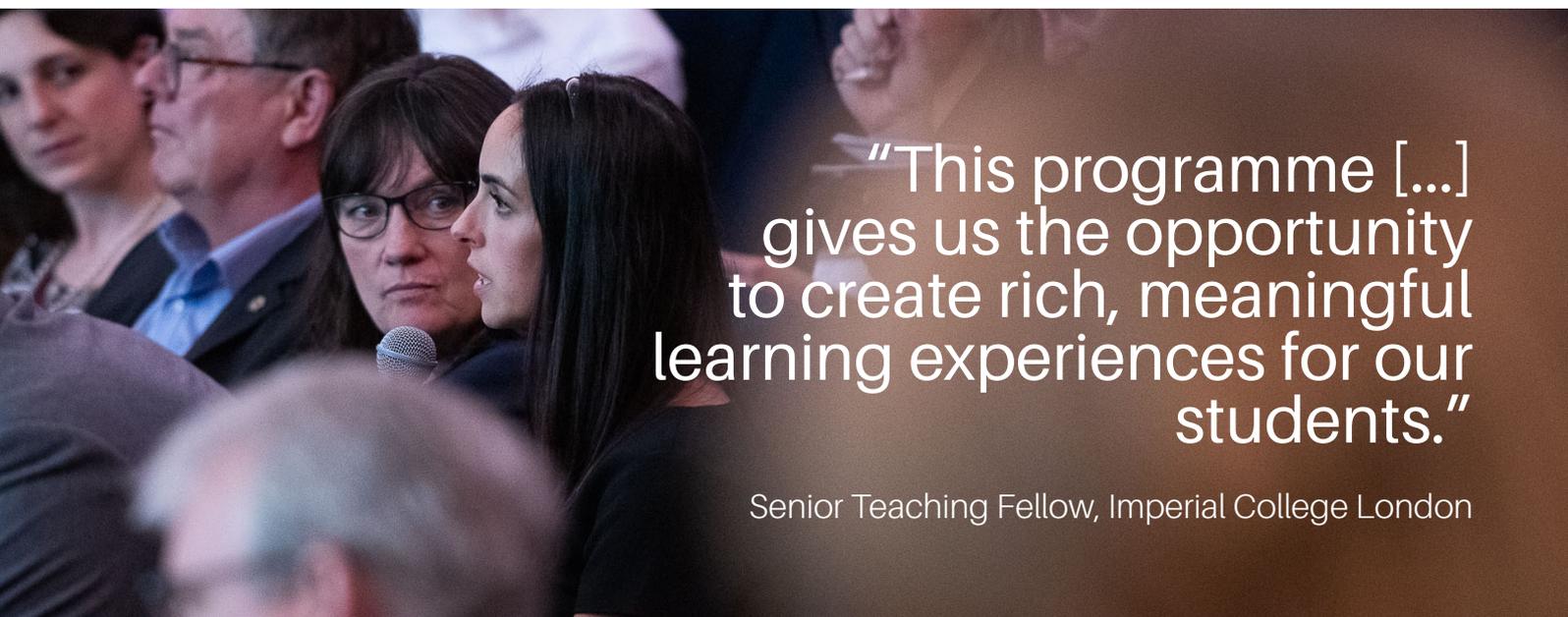
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The programme has been run in universities since 2011 and is delivered through an equitable partnership of Engineers Without Borders South Africa and UK.

Engineers Without Borders South Africa is a registered Non-Profit Company (no. 2013/014531/08). Engineers Without Borders UK is a registered charity in England and Wales (No. 1101849) and Scotland (No. SC043537) and is a company limited by guarantee (No. 4856607).



“This programme [...] gives us the opportunity to create rich, meaningful learning experiences for our students.”

Senior Teaching Fellow, Imperial College London