

# What is the Institution's Research Panel?



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## Introduction

Research and development are crucial for the future of our profession, and help to ensure that the structures we design are safe, efficient and sustainable. The primary role of the Institution's Research Panel, which comprises members from both industry and academia, is to support and promote research through our various grant schemes and initiatives. We also seek to enhance engagement between academia and industry to maximise the impact of research. Our key resource is the Institution's Research Fund, which relies heavily on annual donations from members. In this article, we set out our initiatives, priorities and future plans.

## Initiatives Grant schemes

The Research Panel is responsible for a number of research grant and award schemes, including the assessment of applications, the assignment of funds, the judging of deliverables and the award of prizes. The research grant and award schemes are:

- Undergraduate Research Grant scheme ([www.istructe.org/ug-research-grants](http://www.istructe.org/ug-research-grants))
- MSc Research Grant scheme ([www.istructe.org/msc-research-grants](http://www.istructe.org/msc-research-grants))
- Research Award scheme ([www.istructe.org/research-award](http://www.istructe.org/research-award)).

The Research Award requires partners from both industry and academia. Examples of recently supported projects include high-strength structural materials, the structural use of fibre-reinforced polymer (FRP), connections in

timber structures, vibrational analysis of floors, metallic 3D printing in construction, and seismic design of structures.

## Young Researchers' Conference

The Young Researchers' Conference was instigated by the Research Panel to provide PhD students and other young researchers with an opportunity to present their work to an audience of peers and industry professionals, and to exchange ideas and experiences with fellow researchers. The annual event also serves as a showcase for research, to which final-year and MSc students are invited to gain insight into this line of work. The Research Panel assesses the applications submitted to the conference and judges the poster and oral presentations made on the day. 2018 sees the 20th running of this successful, enjoyable and growing event, and the launch of two regional Young Researchers' Conferences in China and Australia.

## Other initiatives

Other Research Panel initiatives include:

- engagement with *Structures*, the Research Journal of the Institution of Structural Engineers, through the judging of papers for awards and impact statements
- the Industry Focused Research Challenge, which is part of a wider ambition of the Research Panel to meet research priorities identified by industry (see below)
- liaison with regional groups to arrange short research talks at the start of evening events by individuals from that region



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who have been awarded prizes through the various grant schemes and the Young Researchers' Conference. Academics are also encouraged to get involved in their regional groups and to present their research to practising engineers

- engagement with funding bodies, particularly the Engineering and Physical Sciences Research Council.

## Priorities

Research should seek to bring benefit to the industry and more broadly to society. However, it should be recognised that while some applied research may have an almost immediate impact on practice, more fundamental research lays the foundations for longer term impact, which may not even have been envisaged at the time of the work.

To maximise the tangible benefits that can be derived from research, the Research Panel has recently introduced the Industry Focused Research Challenge. The challenge is built around research themes that aim to encourage and facilitate collaboration between industry and researchers and to raise awareness of industry's needs.

Current themes, compiled following input from members of the Research Panel and other Institution panels and committees, include:

- construction materials
- loading on buildings
- solutions for developing countries
- designing for resilience
- systems thinking
- digital engineering.

Full details are available at [www.istructe.org/research](http://www.istructe.org/research). Comments on the identified themes and further proposals are also very welcome.

In addition to the themes, more specific research questions are also provided on the website for academics, project students and others to consider. Encouragement to tackle these challenges is provided through the established grant schemes by giving additional credit in the selection of grant winners to applicants who address the identified priorities. Grants can, of course, still be awarded to high-quality applications on other topics.

## Future plans

The Research Panel will continue to support and promote structural engineering research in the coming years, with a particular emphasis on encouraging practising engineers and academics to work together to tackle the needs of the profession. To raise awareness of the benefits of research and to celebrate its successful application in practice, the Research Panel also plans to launch a new 'research into practice case study competition' in which articles on projects featuring the successful implementation of research will be sought.

Finally, the hard work and dedication of the members of the Research Panel and the Institution staff, as well as the generous donations of Institution members to the Research Fund, are very gratefully acknowledged.

For further information, visit [www.istructe.org/research](http://www.istructe.org/research).