



Challenging the industry leaders of tomorrow

Take 30 students, 3 days and one critical industry challenge. This year marked the ninth ArchEngBuild, a BRANZ-led opportunity for top students in architecture, engineering and construction management to compete, collaborate and innovate on real-world issues.

It was full steam ahead for ArchEngBuild after a 2-year hiatus. The annual challenge brings together the industry's future leaders from around Aotearoa New Zealand to compete in multi-disciplinary teams.

In late 2022 at the University of Auckland Faculty of Engineering, 10 teams had just 3 days to design low-carbon medium-density housing. Their concepts needed to make a long-term positive impact on both the environment and people's wellbeing.

The top prize went to architectural designer Theresa Epton (Ara Institute of Canterbury), engineer Wenxian Hu (Te Whare Wānanga o Waitaha | University of Canterbury) and construction manager Jason Webb (Unitec). Their environmentally friendly community and ecosystem combined sheltered private spaces and open semi-public infrastructure such as communal gardens. With natural light, ventilation, solar energy, and low-carbon materials such as 3D-printed concrete, they presented a strong vision for accessible, affordable and healthy housing.

ArchEngBuild gives students an early taste of working across disciplines, gaining insight into how their counterparts think and make decisions and their perspectives, priorities and language. They quickly learn that effective communication

is essential to the design process. Previous participants have highlighted that ArchEngBuild gave them a strong foundation to collaborate in the workplace and has made a real difference to their careers.

By nurturing communication and collaboration at the beginning of students' careers, the challenge develops industry champions who can drive cross-sector innovation to solve future issues.

ArchEngBuild is funded by BRANZ through the Building Research Levy, organised in partnership with Concrete NZ. Special thanks to sponsors Concrete NZ, New Zealand Timber Design Society and Wood Industry Development and Education Trust. The challenge is also supported by Te Kāhui Whaihanga | New Zealand Institute of Architects, Engineering New Zealand and the New Zealand Institute of Building.

IN THEIR WORDS



**Theresa Epton,
architectural designer,
and ArchEngBuild 2022 participant**

What were the biggest highlights of ArchEngBuild?

It was an incredible experience. Meeting like-minded people from different disciplines was a huge highlight, and we bonded very quickly. It was incredible to work with such supportive and competent people. The competition was set up to foster connections, and I made friends who I hope I'll talk to throughout my career.

What were the most important skills you gained through ArchEngBuild?

I learned how to make quick decisions, and the ability to delegate and collaborate as a team. It showed me what I'm capable of and helped me gain confidence in my skills. It was super stressful with a crazy brief but, somehow, we pulled it off. It was such a worthwhile competition.

What interested you most about the competition?

I'm really interested in sustainability, so that aspect of the brief intrigued me. We decided to investigate innovative new technologies that I'd never heard of before. I learned about carbon costing, carbon neutrality, minimising waste and the entire life cycle of a home. It's opened my eyes to the field, and it's something I want to pursue further. Sustainable design is the future of architecture.

How do you think this will help you in your career?

Being able to work as part of a team is huge, and the competition gave me insight into how to collaborate. In the industry, you always work in teams. No one has all the knowledge, so it's good to get different perspectives, take on ideas and incorporate different things. The goal is to make the best buildings possible, and the way to do that is by collaborating.



The goal is to make the best buildings possible, and the way to do that is by collaborating.

About ArchEngBuild

To find out more about this exciting annual competition that supports collaboration and inspires future building and construction system leaders, visit branz.co.nz/archengbuild.