

Meet our research experts

Our interdisciplinary research team leverages outstanding capabilities and infrastructure. Experts working under this pillar include:

School of Chemical and Biomolecular Engineering

Professor Ali Abbas (Pillar leader): Director of the Waste Transformation Research Hub

Professor Jun Huang: Director of the Laboratory for Catalysis Engineering

Dr Amirali Ebrahimi Ghadi: Sustainable Technology Solutions, Carbon Capture

Dr Gustavo Fimbres-Weihs: Research Fellow in Enviro-Techno-Economic Analysis, Carbon Capture

School of Civil Engineering

Professor Kim Rasmussen: Chairman of the Centre for Advanced Structural Engineering

A/Prof Daniel Dias-da-Costa: Advanced Computational Simulation Techniques, Structural Engineering and Material Mechanics

Professor Gwénaëlle Proust: Deputy Director of the Sydney Manufacturing Hub

A/Prof Yixiang Gan: Deputy Director of the Sydney Nano Institute

School of Aerospace, Mechanical and Mechatronic Engineering

Professor Simon Ringer: Materials Engineering and Director of Core Research Facilities

School of Project Management

Dr Mahshid Tootoonchy: Net Zero systems

School of Architecture, Design and Planning

A/Prof Sandra Loschke: Associate Dean of Indigenous Strategy and Services

A/Prof Arianna Brambilla: Co-chair of the cluster Building Efficiencies of the Smart Sustainable Building Network

Business School

Dr Maria Rummyantseva: Academic Fellow in Innovation, Discipline of Strategy, Innovation and Entrepreneurship

Contact us

For further information or to discuss in greater detail, please contact:

Net Zero Initiative

ali.abbas@sydney.edu.au

How your business will benefit

By partnering with us, your business will be able to:

- collaborate with leading academic and industry experts from the University of Sydney to address the challenges faced by your business;
- help shape the next generation of postgraduate students with skills relevant for your business needs;
- host one of our talented PhD students, who will be placed in your business for up to one year; and
- benefit (pending eligibility) for the Australian Government's R&D Tax Incentive Scheme.

Past projects

Our Waste Transformation Research Hub is a founding member of MECLA (A NSW Government led alliance in materials and embodied carbon). Our current and past partners include: Delta Electricity, iQ Renew, Ashbri, Circrete, LGNSW, NSW Circular, local council partners, GECA, CSIRO, The University of Newcastle, University of Technology Malaysia.

We have successfully commercialised our 'low-carbon concrete' recipe for materials in horizontal non-load bearing infrastructure, viz eco-pavements. We have also developed a high strength green concrete recipe (up to 77 MPa compressive strength). In this project we will take these learnings and experiences to transition into vertical and load-bearing infrastructure, including a durable heat-storing roof tile, and the first Australian non-reinforced bridge.



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