School of Civil and Environmental Engineering Research Identities

01

Sustainable Construction Materials

- Low Carbon Products and sustainability
- Digital transformation and Smart Materials
- Bio-based Construction Materials
- Structural Performance and Environment

02

Resilient Infrastructure

- Climate change, natural hazards, extreme loading and structural resilience
- Risk-based decision making, probabilistic risk analysis and structural safety and reliability
- Structural health monitoring and smart sensing
- Digital transformation and intelligent infrastructure

03

Smart Transport

- Transport geotechnics, unsaturated soils, ground improvement and computational geomechanics
- Travel behaviour and risk, traffic planning and optimisation
- Data analytics and digital transport solutions
- Transport economics, planning & service engineering

04

Green Technology

- Renewable energy: generation, storage and transport
- Alternative fuels, vehicle emissions and urban air quality
- Waste valorisation and environmental decontamination

05

Wastewater Technology and Water Resources

- Water processing and wastewater treatment technologies
- Climate change, flood and drought, and water resources
- Water for food and resources and energy

06

Nutrients in a Circular Economy

- The recovery of valuable nutrients from waste using innovative technologies
- Closing the nutrient loop by diverting urine at the source and recovering nutrients
- Advanced technologies for recovering plant nutrients from human urine and reusing them in plant production