Cranfield University

www.cranfield.ac.uk

About Cranfield University

Our Vision: To be valued globally for tackling the real-world issues of today to deliver a sustainable future.

- We work in partnership with business, academia, governments and other organisations to develop and deliver applied research and innovative education in science, technology, engineering and management.
- We are an exclusively postgraduate university located at the heart of the UK.

Facts and figures

Distinctive strengths

Our expertise is in our deep understanding of technology and management and how these work together to benefit the world. Each of our 'Themes' is focussed on providing real solutions for people and the planet and sits within one of our four interdisciplinary Schools

Our Research Themes

- Aerospace,
- Defence and Security,
- Energy and Sustainability,
- Environment and Agrifood,
- School of Management,
- Manufacturing,
- Transport Systems,
- Water.

Our Schools

School of Water, Energy and the Environment

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Water, Energy and the Environment

Creating sustainable solutions for people and the planet

Water

Environment and Agrifood

Centre for Design Engineering

Energy and Sustainability

Water

WATER SCIENCE INSTITUTE

WATER, ENVIRONMENT AND DEVELOPMENT

World-class facilities: used for research and teaching

£24 million investment in facilities over the last five years.

- UKCRIC facilities:
  - National Research Facility for Water and Wastewater Treatment, incorporating a pilot hall for novel water treatment technologies.
  - Advanced sensor development lab.
  - Point of use potable water treatment lab.
  - One of six UKCRIC national Urban Observatory sites, a campus-wide sensor network to monitor infrastructure and environmental performance and feed into the Oxford-Cambridge Arc
  - National Environmental Sector Decarbonisation Accelerator
  - Major node for Water and Sanitation for the Urban Poor (WSUP)

Cranfield
Energy and
Power

The Theme leads on Energy and Sustainability, including leading the largest joint industry research project for Hydrogen production, the £9 million BEIS Funded HyPER Programme, and key partners in the Research England £5 million HyDEX Programme

Energy and Sustainability

RENEWABLE AND LOW CARBON ENERGY

ENERGY ENGINEERING

ENERGY SYSTEMS AND STRATEGY

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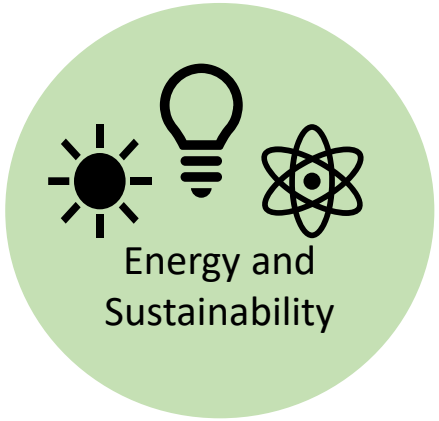
£24 million investment in facilities over the last five years.



- Pilot scale, industrial-quality energy facilities, including the largest pipeline flow labs in Europe
- Landmark £9 million BEIS funded clean hydrogen demonstrator pilot plant (HyPER) for blue H_2 with CCUS
- BEIS £2 million Funded BIO-HyPER
- Materials and coatings for extreme applications
- Green Hydrogen and ammonia
- £4.9 million Research England Hydrogen Knowledge Exchange (HyDEX) Programme with the Midlands Energy Research Accelerator
- Lead in C-DICE RE Training Programme

Our innovative shelf-life extension technology developed with Johnson Matthey and It's Fresh! has reduced food waste in Tesco, Waitrose and Marks & Spencer. Further afield our leadership in the African Centre for Sustainable Cooling is delivering innovative development across Africa

Environment and Agrifood

CRANFIELD ENVIRONMENT CENTRE

TO DRIVE TRANSFORMATIVE INNOVATION USING DIGITAL TECHNOLOGIES AND SYSTEMS THINKING, CRUCIAL IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS.

SOILS, AGRIFOOD AND BIOSCIENCES

A WORLD-CLASS RESEARCH CENTRE DEDICATED TO UNDERSTANDING SOIL, PLANT, AND MICROBIAL SYSTEMS, WITH THE AIM OF TACKLING GLOBAL FOOD AND ENVIRONMENTAL CHALLENGES.

World-class facilities: used for research and teaching

£24 million investment in facilities over the last five years.

- Two national Agri-Tech Centres; pilot scale plant phenotyping and soil health facility in a nine metre-high glasshouse with fully instrumented multi channel imaging platform.
- Agri-informatics facility; recognised by the Department for Environment Food & Rural Affairs (Defra) as the National Soil Collection and a Centre of Excellence for data science related to precision agriculture.
- Home of the Agri Informatics and NERC ‘Constructing a Digital Environment’ Programme

About us

School of Water, Energy and the Environment (SWEE)

Creating sustainable solutions for communities and the planet

Dr Navya Thomas
Research Fellow in Membrane Crystallisation

Dr Tosin Adedipe
Technical Project Manager

Dr Carol Verheecke-Vaessen
Lecturer in Applied Molecular Mycology

Natalia Jawiarczyk
EngD Research Engineer

Dr Yadira Bajon Fernandez
Senior Lecturer in Bioresources Science and Engineering

£30m turnover school

250 FTE staff

88% of our research is rated world-leading or internationally excellent

7th in the UK for research impact in Agriculture, Food and Veterinary Science

7th in UK for Engineering research power

7th in the UK for research impact in Business and Management

BUT.. More importantly SWEE's research and education mission aligned with critical global grand challenges:

- UN SDG's
- Sustainable Development
- Circular Economy
- Net zero
- Food security
- Green Economic Recovery
- Resilience
- EDUCATION and COMMUNICATION

Education: Our MSc's are hands on, experiential and highly employable

Full-time courses	Key UN SDG's
Advanced Chemical Engineering MSc	7, 9, 11, 13
Advanced Digital Energy Systems MSc	7, 9, 11, 13
Advanced Heat Engineering MSc	7, 9, 11, 13
Advanced Process Engineering MSc	
Advanced Mechanical Engineering MSc	7, 9, 11, 13
Renewable Energy MSc	7, 9, 11, 13
Applied Bioinformatics MSc	2
Food Systems & Management MSc	2, 12, 13, 15
Future Food Sustainability MSc	2, 12, 13, 15
Environmental Engineering MSc	11, 12, 13, 15
Environmental Management for Business MSc	11, 12, 13, 15
Geographical Information Management MSc	11, 13, 15
Global Environmental Change MSc	6, 7, 11, 13, 14, 15
Land Reclamation and Restoration MSc	
Advanced Water Management MSc	6, 11, 13
Water & Sanitation for Development MSc	6, 10, 11, 13
Water & Wastewater Engineering MSc	6, 9, 11, 13
Design Thinking MDes	9, 11, 13