University of Glasgow

GLASGOW CENTRE FOR SUSTAINABLE ENERGY

Energy as a service to sustainable and inclusive development, avoiding unintended environmental and societal consequences. Serving our University, Glasgow, Scotland, the UK and the world.

Contents

Welcome

Welcome to our Glasgow Centre for Sustainable Energy (GCSE). We are here to serve our University, Glasgow, Scotland, the UK and the world.

We have a clear message from the United Nations and International Energy Agency that the world needs radical reforms of its energy infrastructure if it hopes to meet its climate change obligations.

The University of Glasgow is committed to tackling the greatest challenges of our time, connecting a community of world changers to build a sustainable future.

The GCSE vision is for energy as service to human development with sustainable and accessible energy provision for all, while avoiding unintended social and environmental consequences.

Given the multidisciplinary nature of the sustainable energy challenge - and thanks to the breadth of expertise at the University of Glasgow - our research and impact spans themes from the supply, storage and distribution of energy to full lifecycle assessments of energy projects, from digitisation of energy systems to decarbonisation of transport and from energy citizenship to effective energy transition policies.

We work closely with local communities, civic authorities, charities and NGOs, national and international professional organisations, governments and industry. We are a neutral platform for progressive dialogue among key stakeholders.

We facilitate advancements towards timely implementation of sustainable energy solutions at multiple scales, all the way from local to global.

As we continue to grow our strategic networks, alliances and consultation hubs to increase value co-creation and positive impact we look forward to engaging with more like-minded efforts. So please do get in touch, and work with us.

Professor Gioia Falcone
Director, Glasgow Centre for Sustainable Energy

Rankine Chair of Energy Engineering
James Watt School of Engineering

The GCSE Community

Get in touch:
contactus-sustainableenergy@glasgow.ac.uk

Centre Associate Directors
Professor David Flynn, Head of Research Division, Autonomous Systems and Connectivity, James Watt School of Engineering
Professor Harriet Thomson, Professor of Energy, Sustainability & Inequality, Urban Studies & Social Policy
Dr Roddy Yarr, Director of Sustainability, University of Glasgow

GCSE Team
Anna Doyle & Claire Johnston, Centre Coordinator

College Team
Industry Engagement: Anne-Mari Gillespie
Research & Business Development: Lynne McCorriston
Interdisciplinary Research: Suzannah Turner

Centre Membership:
The GCSE membership comprises 300+ researchers and support staff with multidisciplinary sustainable energy expertise.

GCSE Early Career Researchers (ECR) Network:
The GSCE ECR network is a thriving peer-led network of ECRs from a range of disciplines working on sustainable energy.

A to Z of GCSE Research Expertise

The GCSE membership represents a vast array of experience and expertise ready to support and collaborate across academia, industry and community:

- AI, machine learning and digital twins for energy applications
- Bioenergy
- Business models for the circular economy
- Clean fuels and energy carriers
- Clean heating and cooling
- Critical materials for the energy transition
- Cyber Physical Systems
- Digital Twinning
- Energy citizenship for a just transition
- Energy data, digitisation and connectivity for energy systems
- Energy efficiency in the built environment
- Energy harvesters
- Energy in space
- Energy policy
- Energy storage
- Energy sustainability in media and entertainment industries
- Energy systems modelling
- Geoenergy and Geostorage
- Hydropower
- Legacy energy assets
- Life Cycle Assessment in energy and waste management
- Low carbon computing and sustainable software engineering
- Multiphysics characterisation of advanced energy systems
- Nuclear energy and nuclear waste management
- Risk management and reliability analysis
- Smart grids
- Smart sensor systems
- Solar energy
- Sustainable materials and manufacturing for clean energy
- Transport decarbonisation
- Wave and tidal energy
- Wind energy

Research, Consultancy, and Facilities

The University of Glasgow is a leading international research university, with one of the broadest research bases in the UK. The wide range of disciplines reflected in our academic community mean we are uniquely positioned to tackle complex challenges, including advancing sustainable energy solutions.

Be a Research Partner

Join forces with our leading researchers to address your business challenges. We have a strong track record of collaborating with industry and other research institutions.

From short-term consultancy to long-term collaborative projects, by working in partnership with us your organisation can benefit from the University's world-class research expertise and facilities, alongside our extensive and ongoing input to the research process at all stages.

Together we can seek external research funding from organisations such as **Innovate UK, UKRI**, and the **European Commission**.

How it works:
It starts with a confidential and friendly conversation with a GCSE Team member who will scope out partnership opportunities and connect you with relevant expertise based on your organisational need. Our Industry Engagement Team are on hand to usher you through terms of engagement and agreeing project scope.

Whether it is an opportunity to engage our students in a small research project, or develop a large-scale joint research bid, we are open for business.

Knowledge Transfer Partnership (KTP) Opportunities

What is a KTP?
KTPs are a three-way partnership between your business, the University of Glasgow and a research graduate who works within your organisation to ensure that the project is delivered.

How does a KTP work?
Through a KTP, you can embed expertise, generate new knowledge, expand capability and foster a culture of innovation within your organisation. Innovate UK will fund between 50% and 75% of the eligible costs for each KTP.

How to find out more:
Details of KTPs are available **here** or contact the GCSE team at **contactus-sustainableenergy@glasgow.ac.uk** for more information and to be introduced to the appropriate member in our community to help take your project forward.

Consultancy Services

Through our Academic Consultancy Service, organisations gain access to high-calibre academic insight backed by rigorous thinking and institutional credibility.

Our dedicated team offers an end-to-end account-managed service, working closely with you to understand your challenges and deliver tailored solutions that create measurable impact. Whether you're shaping new processes, developing products, or navigating complex systems, we connect you with the right academic minds to move your ambitions forward.

Examples of consultancy service we offer include:

- Providing expert witness panels
- Serving on scientific advisory boards
- Designing and delivering bespoke training
- Conducting data analysis
- Offering technical solutions to business challenges
- Providing government policy guidance and design
- Contributing to field trial design

Access State of the Art Research Facilities and Services

The University of Glasgow offers a wide range of **high technology services**, supported by the University's base for innovative research and knowledge.

These services are available to industry at competitive commercial rates, enabling companies to address and solve key technical challenges, increase product performance, and improve business operations.

Our technology centres provide easy access to a professional service, delivering high quality, client-focussed, and insightful solutions on a timely basis.

Facilities include:

- Energy Lab
- Energy Transition Lab
- Sustainable Electronics Lab
- Glasgow Hydrogen Innovation Centre
- Fluid dynamic testing facilities - National Wind Tunnel facility
- Scotland 5G Testbed
- College of Science & Engineering Analytical Suite
- Glasgow Laboratory for Advanced Detector Development (GLADD)
- Imaging Spectroscopy and Analysis Centre
- James Watt Nanofabrication Centre
- Scottish Universities Environmental Research Centre (SUERC)

For more information contact the team at **contactus-sustainableenergy @glasgow.ac.uk**

The Advanced Research Centre (ARC)
The ARC is home to collaborative research, innovation and discovery at the University of Glasgow. The unique building brings together researchers, partners and ideas to catalyse and advance collaboration, teamwork and innovation, drawing from all sectors and disciplines inside and outside the University.

Executive & Professional Education

Executive & Professional Education at the University of Glasgow provides a flexible model for individuals and organisations to realise potential.

GLASGOW CENTRE FOR SUSTAINABLE ENERGY

We offer expert-led courses to deliver training and continuing professional development opportunities, which drive individual and organisational growth. Participants gain the knowledge and tools needed to succeed; and make a lasting impact.

Sustainable energy solutions involve an intersection of disciplines with potential to create information voids which Executive & Professional Education can overcome. For example, policy makers may seek deeper understanding of sustainable energy technology while technical leads seek a deeper understanding of policy and community impact to inform innovative strategies and avoid unintended consequences.

Executive & Professional Education is delivered in two main forms:

- Bespoke programmes designed for an organisation to meet a specific need
- Open access programmes for individuals for continuing professional and leadership development

To ensure programmes are robust, partners may be used in delivery and collaboration is explored on a case-by-case basis.

How to find out more:
Contact the team at **contactus-sustainableenergy@glasgow.ac.uk**

Tapping Into Talent

As a leading Russell Group university, the University of Glasgow is home to ambitious and talented undergraduate and postgraduate students and researchers with sustainable energy expertise across varied disciplines, ready to make real-world impact.

Postgraduate Research Programmes

- **Partnership PhD:**
  The Partnership PhD programme provides an opportunity for industry employees to undertake a PhD project co-developed with the University of Glasgow and aligned with the research needs of the company.
  Students under this programme will spend the majority of the PhD with their employer receiving support from an industrial and academic supervisor.
- **Industry Scholarships:**
  Match-funding for some scholarships is available from the Graduate School and there are extensive research areas in which we can provide funding /supervision.
- **Integrated Placement PhD:**
  PhD students are matched with Small or Medium Enterprises (SMEs) that provide industrial supervision to support them throughout their doctoral studies.
  Students are expected to engage in a funded six-month placement within the partnering company.
- **Placements:**
  We offer several flexible opportunities for companies to host post-graduate student placements or provide funding for travel grants.

Early Careers Recruitment

GCSE works closely with the University's award-winning Careers Teams and together we can provide tailored solutions to your early careers' talent needs. Opportunities to access talent at the University of Glasgow include:

- On Campus Careers Fairs & Events
- Promotion of internships & industry placements
- Direct recruitment routes for under and postgraduates
- Software Engineering Graduate Apprenticeship Programme
- Bespoke service to support you to identify your talent needs and help address them

Access Talent Now

Contact the GCSE team **contactus-sustainableenergy@glasgow.ac.uk** to discuss your requirements be connected you with the university colleagues who can develop a talent strategy and action plan to meet your organisation needs.

GCSE Early Careers Researchers Network

The Glasgow Centre for Sustainable Energy (GSCE) Early Careers Researchers (ECR) network is a network of ECRs from a range of disciplines working on sustainable energy.

The network is inclusive and collaborative so that ideas can move beyond disciplinary boundaries and we may find new ways to address the world's energy issues.

To bring together ECRs from across the country and institutions is at the core of what the network does, starting from Glasgow, Scotland, and reaching beyond.

The key aims and Objectives of the GSCE ECR network are to:

- Foster an inclusive environment for interdisciplinary collaboration, knowledge sharing and networking among ECRs in the Sustainable Energy field.
- Connect with ECR networks and industry across the country to form a go to network for ECRs in sustainable energy.

Networks are essential for change, and we believe that the GSCE ECR network can become an important component in the network needed for our energy transition.

The GCSE ECR Network is open to collaborative partnerships and sponsorship opportunities and can be reached by email: **ecrnetwork-sustainableenergy@glasgow.ac.uk**

Alumni Connections

The University of Glasgow is proud of our alumni community of almost 300,000 graduates. We also delighted so many of our graduates are advancing sustainable energy activities across the globe.

The University of Glasgow experience connects us all and creates a world-changing, vibrant and generous network. Our connection is lifelong, and we hope that you continue to stay in touch and benefit from the many opportunities being part of our community brings, including through events, networking and volunteering.

If you would like to discuss how you can be involved with the Glasgow Centre for Sustainable Energy as an Alumni, please reach out to us:

contactus-sustainableenergy@glasgow.ac.uk

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GCSE in the Community

We see public engagement as a driver for creating a more prosperous, healthy and sustainable society, by making research and innovation more relevant, impactful and trusted.

GCSE supports a culture of public engagement, where researchers can engage with the wider community for mutual benefit. Engagement is a two-way process.

We work closely with local associations and NGOs in Glasgow and Scotland and with international partners to reach global communities.

Our Sustainable Energy Zoomposium series spotlights sustainable energy research and projects at the University of Glasgow. Recordings of these sessions are accessible to everyone online: **glasgow.ac.uk/colleges/scienceengineering/research/events/zoomposia**

We are constantly growing our community outreach and welcome calls for engagement to build a robust community of Energy Citizens.


University of Glasgow
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