



Professor/Associate Professor of Sustainable Hydrogen Energy

Candidate Pack



February - March 2026



Welcome

Thank you for your interest in the post of Professor of Sustainable Hydrogen Energy in the Faculty of Engineering & Design at the University of Bath. Our leadership in the field of Hydrogen is well known nationally and, more broadly, we are one of the most innovative and highly-performing universities in the UK.

The faculty is a vibrant and diverse community with real strength in breadth, comprising four departments:

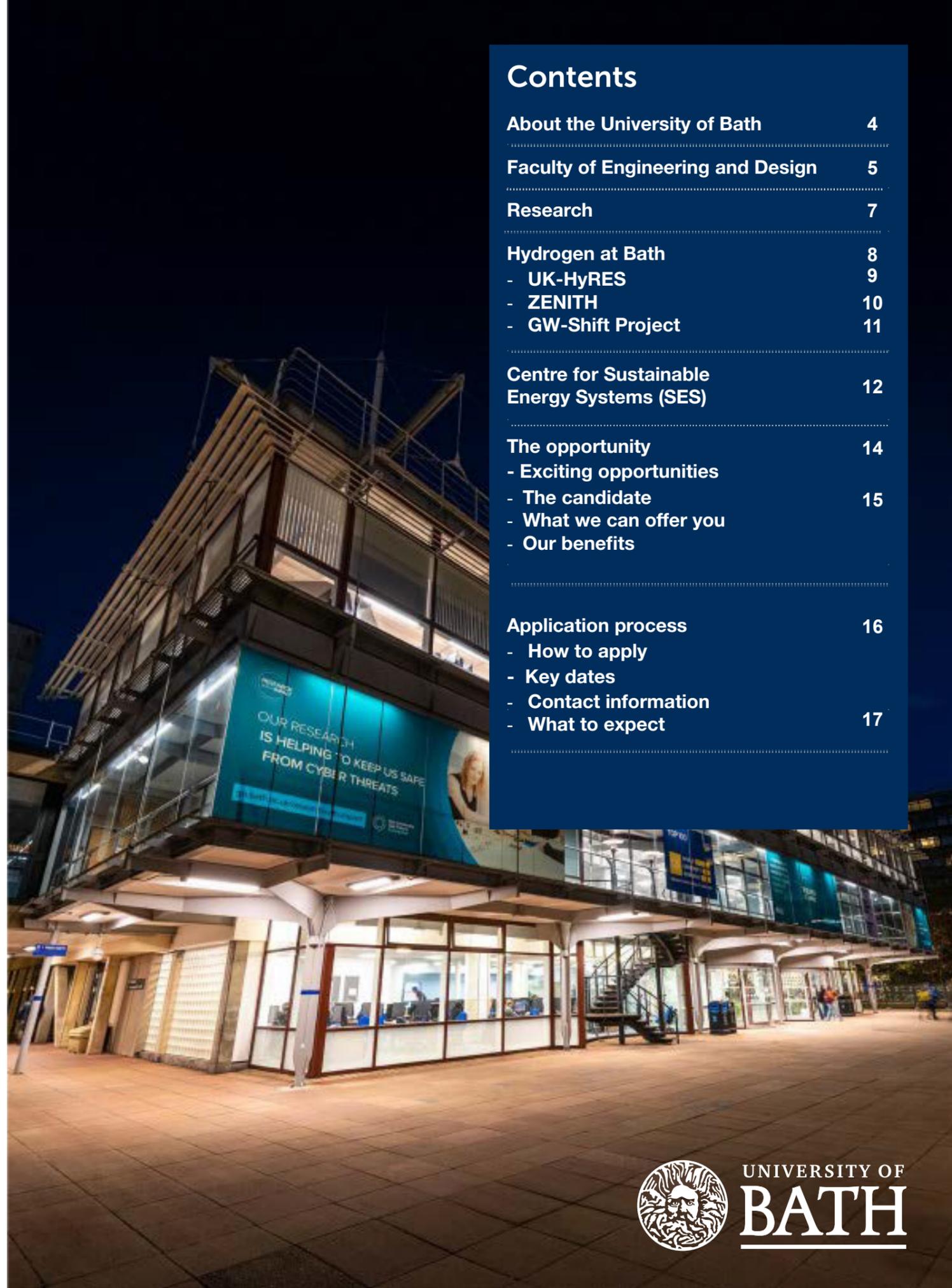
- Architecture & Civil Engineering
- Chemical Engineering
- Electronic & Electrical Engineering
- Mechanical Engineering

Cutting across these departments is a strong research culture, with well-resourced Research Centres aimed at interdisciplinary global challenge. These centres have the critical mass and support to develop large research initiatives to address the environmental, economic, and social research grand challenges faced by humanity. This post will be affiliated to our Centre for Sustainable Energy Systems, and specifically at the role which Hydrogen will play in our energy transition.

In REF2021, all of our impact in the Engineering Unit of Assessment was rated world-leading or internationally excellent, and we are committed to attracting the best and the brightest to us to ensure that we have real, positive impact on the world. We are open to discussions around coming to Bath possibly with colleague(s) to enable a seamless and stronger transition. While demonstration of an outstanding track record in research is important, the potential for such achievement in the future is crucial, opening the possibility for someone who wishes to make an accelerated move to Full Professor. This post should suit anyone ambitious for an excellent research-focused career in academia.

In our Faculty, we work hard to ensure that our culture is right. We know that when we have the culture right, all success follows quite naturally. You will join a team deeply committed to equity, diversity and inclusion. You will be a generous leader, with kindness a key feature. You will want to bring others along with you to share success, and we can guarantee that support for you too. It makes our Faculty a special place to work and play. Join us.

Professor Tim Ibell
Dean of the Faculty of Engineering & Design



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About the University of Bath

Over the past fifty years, the University of Bath has evolved into an institution recognised worldwide, hosting over 19,000 students from 147 nations. Our commitment is to provide students with a comprehensive education, which includes: superior teaching led by research-driven academics; ubiquitous placements in our undergraduate programmes to enhance vital generic skills; an expansive and increasing selection of postgraduate studies; and extracurricular activities, highlighted by our award-winning sports facilities. The outcome is a highly engaged student population, distinguished by their quality, achievements, and high levels of satisfaction.

We foster a collaborative learning environment where students and faculty work closely in both educational and research endeavours. This collaboration often proves transformative for students and extends its benefits beyond the university, enhancing both local and global understanding. Our faculty work across both traditional and novel disciplines, ensuring our research delivers practical, socially and economically beneficial outcomes. Continued investment in new facilities and staff is key to amplifying our research impact.

The University makes a significant positive impact on the community and local economy, contributing approximately £380 million in Gross Value Added (GVA) to Bath and North East Somerset, and £1.2 billion to the UK economy. We maintain close ties with industry leaders and niche companies alike, and our Innovation Centre is pivotal in nurturing new enterprises.

We pride ourselves on being a dynamic community, embracing intellectual, cultural, sporting, and social pursuits. We are dedicated to leveraging our knowledge and capabilities to address real-world challenges. From its inception, the University was envisioned to stand out through its innovation and inclusivity. Our compact campus fosters a strong sense of community, reinforcing our dedication to collegiality. Our vibrant international alumni network extends our reach globally. By partnering with national and international, industrial, and social entities, we create a space where the social sciences, humanities, arts, engineering, and science converge for the greater good of the global community.



Ranked 8th
The Guardian University
Guide 2026



Ranked 7th
The Times and The
Sunday Times Good
University Guide 2026



**Awarded
Triple Gold**
in the Teaching Excellence
Framework (TEF) 2023



Ranked 8th
The Complete University
Guide 2026

96%

92% of our research was
classified as
world-leading or
internationally excellent

**Ranked
135**

In the QS World University
Rankings 2026 .



Faculty of Engineering and Design

Within the Faculty, you will discover a vibrant ecosystem spread across key departments: Architecture & Civil Engineering, Chemical Engineering, Electronic & Electrical Engineering, and Mechanical Engineering. Each department stands as a centre of excellence, offering unparalleled opportunities for research and teaching across a range of engineering disciplines.

As part of our team, you will have access to state-of-the-art facilities and the opportunity to collaborate with leading experts in your field. Our interdisciplinary approach not only enhances the depth and breadth of our research but also amplifies its impact on real-world challenges. We are committed to fostering a culture of innovation and inclusivity, where your expertise and insights will contribute significantly to our collective success and the advancement of engineering solutions on a global scale.

This is an opportunity to play a key role in driving forward our mission to develop sustainable, innovative solutions for the world's most pressing problems.



Faculty of Engineering and Design



Professor Marcelle McManus

Marcelle is a Professor of Energy and Environmental Engineering and Director of the Sustainable Energy Systems Research Centre at the University of Bath. Her focus is in whole systems and life cycle assessment, which has been her area of focus for over 20 years. She is a Research Director in the UK's Industrial Decarbonisation Research and Innovation Centre (IDRIC) which pulls together academics and industry to help create greener industrial futures. Critical to this is the understanding of the impact of the use and provision of hydrogen and ancillary systems where recent research has focused.



Professor Mi Tian

Professor Mi Tian is a leading researcher in sustainable hydrogen energy within the Department of Chemical Engineering. Her work advances solid-state hydrogen storage and low-carbon energy systems. Through cutting-edge research and close collaboration with industry, she is driving scalable, next-generation solutions to enable hydrogen as a clean, secure and widely deployable energy source. Her portfolio includes major projects on hydrogen storage, composite energy materials and AI-supported hydrogen decision platforms, reinforcing the UK's position in sustainable energy innovation.



Professor Chris Brace

Chris Brace is the Executive Director for IAAPS and Professor of Automotive Propulsion. Chris Brace is a leading expert in automotive propulsion and Executive Director of the Institute for Advanced Automotive Propulsion Systems (IAAPS) at the University of Bath. His work centres on developing cleaner, more sustainable propulsion technologies and pioneering advanced measurement, analysis and control techniques for multi-cylinder engine and hybrid powertrain systems. He works extensively with major industry partners, including Ford Motor Company and Jaguar Land Rover, to translate research into real-world innovation.

For informal enquiries, please contact Chris Brace or Mi Tian via email:

Professor Mi Tian: mt747@bath.ac.uk

Professor Chris Brace: enscjb@bath.ac.uk

Research

The Faculty of Engineering and Design at the University of Bath stands at the forefront of addressing global challenges through its cutting-edge research. The faculty's research endeavors are structured around three significant themes: digital, health, and sustainability. This strategic focus is evident in the diverse range of research centres and institutes within the faculty, each dedicated to pushing the boundaries of engineering and design to create impactful solutions for economic, societal, and environmental issues.

The faculty's institutes and centres include:

Centre for Bioengineering & Biomedical Technologies

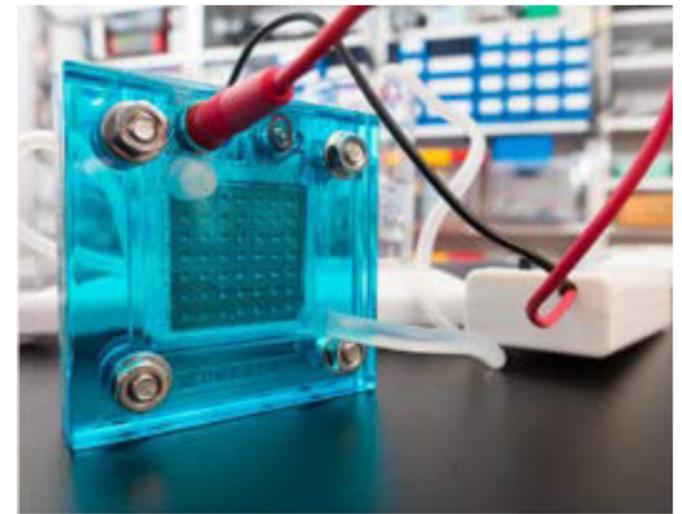
Technologies: This centre explores the interface between engineering and the biological sciences. Its research aims to advance healthcare solutions through innovative technologies and methods.

Centre for Climate Adaptation & Environment Research (CAER)

Research (CAER): CAER's work is crucial in the fight against climate change, focusing on developing strategies and technologies for adapting to and mitigating the impacts of climate change.

Centre for Regenerative Design & Engineering for a Net-Positive World (RENEW)

RENEW: RENEW focuses on sustainable design and engineering practices that not only minimize negative impacts but also contribute positively to the environment.



Centre for Digital, Manufacturing & Design (DMADE)

DMADE: This centre emphasizes the integration of digital technologies in manufacturing and design processes, enhancing efficiency, creativity, and sustainability.

Centre for Integrated Materials, Processes & Structures (IMPS)

IMPS: IMPS works on the development of new materials and processes that contribute to the advancement of engineering applications, from aerospace to biotechnology.

Centre for Sustainable Energy Systems (SES)

SES: SES is dedicated to developing renewable energy technologies and systems that support the transition to a sustainable energy future.

Additionally, the faculty collaborates multiple other institutes and centres, including but not limited to The Institute for Advanced Automotive Propulsion Systems (IAAPS) and the Institute of Sustainability and Climate Change (ISCC), further highlighting its multidisciplinary approach to research. These centres and institutes reflect a significant shift in research philosophy – from technology-led to challenge-led research, from individual pursuits to collaborative, multidisciplinary efforts, and from advancements in single disciplines to the integration of innovations across multiple fields. Through this approach, the Faculty of Engineering and Design at the University of Bath not only contributes to the advancement of knowledge and technology but also plays a pivotal role in solving some of the most pressing challenges facing our world today.

Hydrogen at Bath

The University of Bath is at the forefront of hydrogen research in the UK, underscored by significant grants and collaborative projects aimed at advancing the nation's move towards Net Zero carbon emissions. Leading these efforts are notable figures such as Professor Marcelle McManus, Professor Chris Brace, Professor Mi Tian, and their teams, who are deeply involved in pioneering projects and research hubs.

- Research and innovation across the hydrogen value chain
- Strong alignment with Net Zero and related government strategies
- Excellent fit with University's Climate Action policies and research focus area of Sustainability

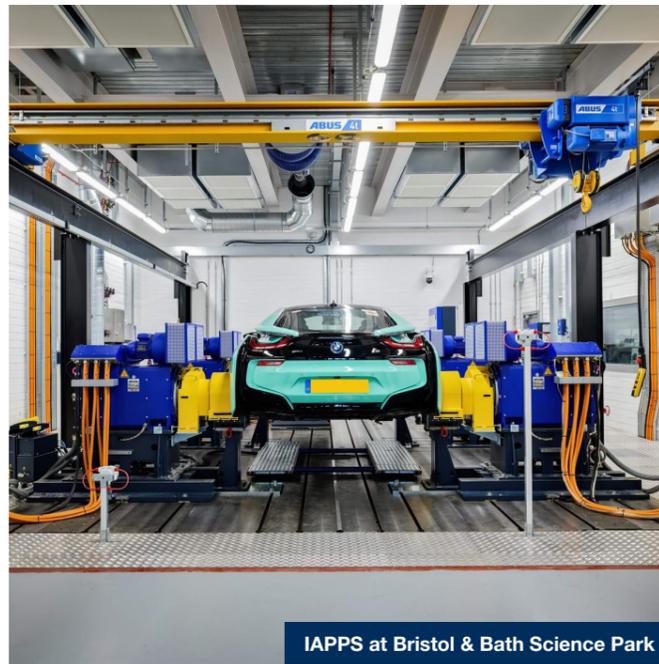
- £17M EPSRC Supergen funding for hydrogen research consortia led at Bath (2003-22)
- Significant and growing investments on campus (c.£35M current UKRI and other funding)
- R&I involving Engineering, Science, Humanities and Management (> 50 academics)
- Capability, capacity and leadership building; aim to recruit five new academic staff in Engineering, including two professors
- Strong stakeholder engagement

- Bath Beacon: Hydrogen and its Carriers
- UK-HyRES: UK Hub for Research Challenges in Hydrogen and Alternative Liquid Fuels
- ZENITH: EPSRC Prosperity Partnership with GKN Aerospace
- EPSRC Open Fellowship on superconductivity in H₂-fuelled aircraft
- Innovate UK KTP with ZeroAvia
- GW-SHIFT: EPSRC Place Based Impact Acceleration Account

- Major investments and partnership development in hydrogen at IAAPS with a focus on low carbon propulsion



Claverton Campus



IAAPS at Bristol & Bath Science Park



UKRI Engineering and Physical Sciences Research Council

The UK Hub for Research Challenges in Hydrogen and Alternative Liquid Fuels (UK-HyRES), now led by Professor Chris Brace as Director and Professor Mi Tian as Co-Director, is a national centre of excellence driving the UK's transition to sustainable hydrogen and low-carbon liquid fuels. Originally founded by Professor Tim Mays, UK-HyRES continues to build on its strong foundations with renewed leadership and direction. The Hub received £10.7 million from UK Research and Innovation as part of a wider £53 million initiative to decarbonise the UK's energy sector, supporting major research efforts in hydrogen production, storage, distribution and end-use. Its mission is to accelerate the adoption of hydrogen and alternative fuels to help the UK achieve Net Zero by 2050, strengthening industry collaboration and advancing innovative technologies that position the University of Bath as a national leader in hydrogen research

- UK Hub for Research Challenges in Hydrogen and alternative Liquid Fuels
- Five-year, £10.7M EPSRC national research hub led by the University of Bath from 1/6/23

- Initially, eight PDRAs, 13 PhD students in Hub to carry out research across the value chain to accelerate the uptake of low carbon hydrogen technologies
- £15.3 leverage co-funding from > 30 industry, civic and university partners
- £4.1M flexible funding pot



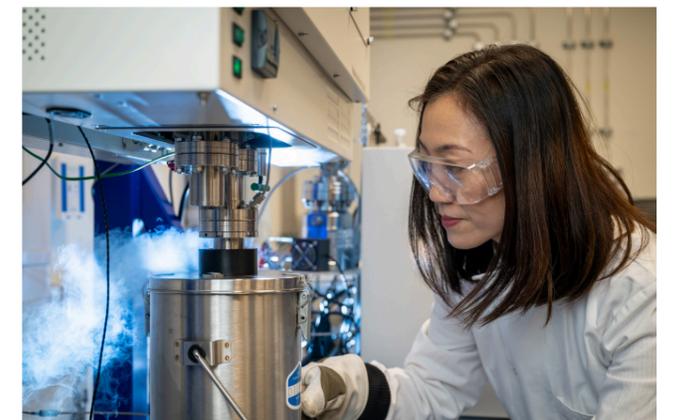
UK-HyRES Launch Meeting

High Profile Hydrogen Research Facilities

The University of Bath has invested heavily in world-class hydrogen research facilities, establishing itself as a leading centre for innovation across materials science, chemical engineering, energy systems and safety.

Our state-of-the-art laboratories support research into hydrogen production, storage, separation and utilisation, with advanced safety systems and specialist equipment including high-pressure gas adsorption, thermogravimetric analysis with hydrogen, isotope separation and chemisorption. These are complemented by cryogenic systems, gloveboxes, ball-milling equipment and access to central research facilities.

This integrated environment enables high impact fundamental and applied research, driving next-generation hydrogen technologies and contributing to the UK's Net Zero goals.



ZENITH

The University of Bath is spearheading an ambitious project named ZENITH (Zero Emission: The Next Generation of Integrated Technologies for Hydrogen), which aims to revolutionize the aerospace industry by developing zero-emission aircraft. This initiative places the University at the forefront of sustainable aviation, aligning with the UK's Net Zero 2050 target. Bath's collaboration with GKN Aerospace, a leading global supplier to aircraft and engine manufacturers, underscores the project's strategic importance in advancing hydrogen-based fuel technologies for aviation.

Under the leadership of Professor Richard Butler from the Department of Mechanical Engineering, ZENITH focuses on pioneering research across four key areas: Liquid Hydrogen Storage, Solid State Storage, Optimised Performance, and Sustainable Manufacture. This multidisciplinary effort involves a team of Bath's top academics and industrial specialists, drawing expertise from the Institute for Sustainability, as well as the Departments of Mechanical Engineering, Chemical Engineering, Chemistry, and Mathematical Sciences.

The partnership with GKN Aerospace and the involvement of a wide array of Bath's academic talent underscore the University's commitment to leading in the area of sustainable aviation. By tackling the fundamental challenges of hydrogen-fuelled aircraft, the University of Bath is not only enhancing its strategic relationship with GKN but also positioning itself and the UK as leaders in the emerging market for zero-emission aircraft

These initiatives underscore the University of Bath's commitment to leading the transition to sustainable energy sources, leveraging the expertise of its faculty and the collaborative power of regional and national partners. The focus on hydrogen as a key element of the UK's strategy to achieve Net Zero emissions by 2050 positions the university as a pivotal player in the nation's energy future.

- Zero Emission: The Next Generation of Integrated Technologies for Hydrogen Storage
- Five-year £1.5M EPSRC Prosperity Partnership between the University of Bath and GKN Aerospace from 1/11/23

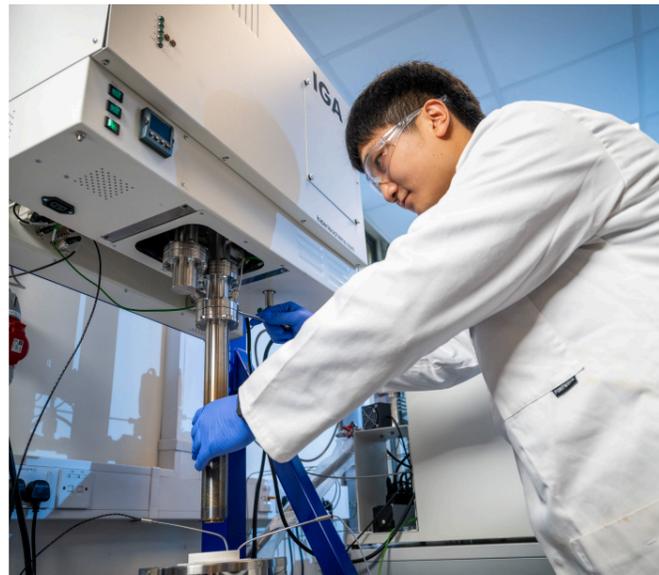
- Four Bath PDRAs and eight PhD students working on research challenges associated with commercial aircraft fuelled by low carbon liquid hydrogen
- £2.8M leveraged co-funding



GKNA Global Technology Centre, Bristol



GKN H2GEAR



GW-SHIFT Project

Another significant project, GW-SHIFT (Great Western Supercluster of Hydrogen Impact for Future Technologies) has secured £2.7 million from the EPSRC. This project aims to create a supercluster of hydrogen expertise and innovation in the UK's South West and South Wales, focusing on decarbonizing transport and energy. GW-SHIFT will support innovative research and activities to develop a thriving low carbon hydrogen supercluster, addressing key themes such as production, storage and distribution, and conversion and transport. This project highlights the collaborative effort across academic institutions, civic organizations, and industry partners to foster a knowledge-intensive green economy.

- Great Western Supercluster of Hydrogen Impact for Future Technologies
- £2.7M EPSRC Place Based Impact Acceleration Account from 1/1/24 led by Bath

- Multi-partner, multi-site project in the South West of England and in South Wales with strong civic and industrial support
- Connect and consolidate desperate regional interests to establish and sustain a low carbon eco-system
- £1.7M leveraged co-funding from > 25 regional partners

For more detailed information about these projects and the University of Bath's role in hydrogen research, you can visit the official University of Bath website and specific pages dedicated to the UK-HyRES hub, the Bath Beacon for Future Fuels, and the GW-SHIFT project.

bath.ac.uk/announcements/hydrogen-research-hub-awarded-11-million-to-help-uk-reach-net-zero-targets/
bath.ac.uk/campaigns/bath-beacon-future-fuels-hydrogen-and-its-carriers/

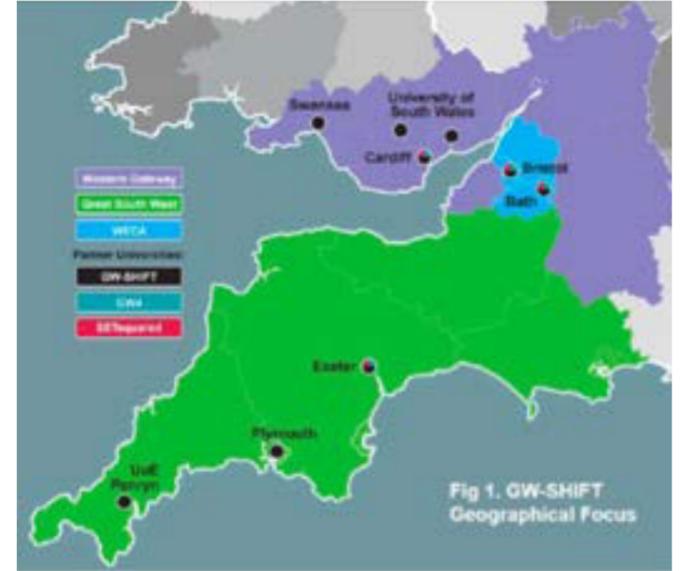


Fig 1. GW-SHIFT Geographical Focus



Centre for Sustainable Energy Systems (SES)

The University of Bath's Centre for Sustainable Energy Systems is at the forefront of the global transition towards more sustainable and renewable energy sources.



A Multidisciplinary hub for Energy Research

The Centre embodies a collaborative spirit, bringing together researchers across various domains of energy research. From generation and demand to systems integration and minimising environmental impacts, the Centre is dedicated to enhancing energy efficiency and optimising sustainability. Its focus spans the whole value chain: energy production, storage and networking, and consumption. This broad scope facilitates a comprehensive approach to addressing energy challenges, leveraging technical advancements in renewable power generation, grid stability, and energy storage methods.

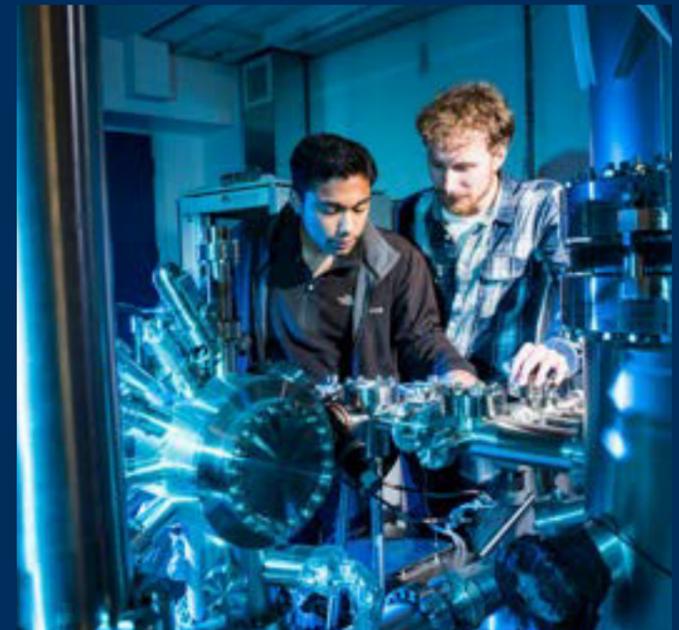
Driving Innovation in Renewable Energy

The commitment to green hydrogen production, particularly using bio-based resources, highlights the Centre's dedication to circular and sustainable processes. This approach not only enhances the economics of energy processes but also ensures their sustainability, demonstrating the potential for waste to be transformed into valuable energy resources.

Expanding Research and Collaboration

With a strong base in engineering, the Centre is actively seeking to broaden its research capabilities by integrating expertise from behavioural sciences, change management, social sciences, and beyond. This inclusive approach aims to foster a comprehensive understanding of sustainable energy systems, encouraging a collaborative effort towards developing renewable technologies and sustainable energy solutions.

The Centre for Sustainable Energy Systems at the University of Bath is not just a place for technological innovation; it is a community committed to driving the change towards a sustainable energy future. By inviting collaboration across disciplines, it sets the stage for ground-breaking advancements in sustainable energy.



The Opportunity



Professor/Associate Professor of Sustainable Hydrogen Energy

The Faculty of Engineering & Design at the University of Bath seeks to appoint an outstanding Professor or Associate Professor of Sustainable Hydrogen Energy to provide academic leadership in research, education, and external engagement in this strategically important area.

Hydrogen is recognised as a cornerstone of the UK's net-zero strategy, with a national commitment to deploy up to 10 GW of low-carbon hydrogen production capacity by 2030, at least half of which will be from electrolytic sources. Advancing hydrogen technologies is therefore central to decarbonisation, energy security, and long-term sustainability.

Hydrogen research is a key component of the University's research portfolio and aligns strongly with its strategic focus on Energy and Sustainability. This area is supported by:

- **The Institute for Sustainability and Climate Change** and the **Centre for Sustainable Energy Systems**, providing a vibrant, interdisciplinary environment for collaboration and impact.
- **The Institute for Advanced Automotive Propulsion Systems (IAAPS)**, which provides industry-focused, deployment-level research facilities, strengthening the pathway from fundamental research to system integration and real-world deployment in energy storage, conversion, and propulsion technologies.

Exciting opportunities

The University of Bath plays a leading role in the UK hydrogen ecosystem through two flagship initiatives:

UK-HyRES (Hub for Research Challenges in Hydrogen and Alternative Liquid Fuels) is a key component of the University's research portfolio. Funded by UK Research and Innovation (UKRI) through the Engineering and Physical Sciences Research Council (EPSRC), it aims to define and tackle the research challenges currently blocking the wider deployment of low-carbon fuels in the UK.

GW-SHIFT (Great Western Supercluster of Hydrogen Impact for Future Technologies) complements this national leadership as a regional partnership. It focuses on accelerating hydrogen innovation, demonstration, and industrial translation across the South West and South Wales.

Together, these initiatives provide a nationally and regionally distinctive platform for the successful candidate to shape strategic research direction, build interdisciplinary collaborations, and deliver high-impact outcomes aligned with the UK's net-zero ambitions.

The Candidate

The Professor / Associate Professor of Sustainable Hydrogen Energy will have:

- A sustained record of publishing high-quality research outputs in hydrogen energy or in closely related fields.
- A proven track record in securing major external funding and shaping ambitious research programmes.
- A strong international profile, with the ability to build global partnerships and deliver research and innovation that contributes to the University's ambitions for world-leading impact.
- Evidence of academic leadership in innovation and collaboration, with the ability to translate research into real-world impact.
- Strategic vision and the capability to lead and contribute to large-scale, interdisciplinary initiatives.
- A strong commitment to mentoring, people development, inclusion and institutional leadership.

The successful candidate will be based within the Hydrogen Hub and one of the four departments in the Faculty of Engineering & Design:

- Architecture & Civil Engineering
- Chemical Engineering
- Electronic & Electrical Engineering
- Mechanical Engineering

The University of Bath offers a uniquely broad and integrated research environment, with strengths spanning hydrogen storage and production, propulsion systems, electrochemistry, power systems, renewable energy, and applications in both aviation and automotive sectors.

You will be a kind and culturally aware leader who fosters an environment where every individual is valued and respected, regardless of their background or identity. You will understand that change is inevitable and necessary, actively encouraging your team to adapt and evolve. By promoting a culture of openness and inclusivity, you will create a dynamic and empowered team that can thrive in today's changing world.

What we can offer you

- **A very generous employer contributory pension scheme.**
- **A generous annual leave allowance**, plus an additional 5 discretionary days so that you can enjoy a positive work-life balance.
- **A family-friendly environment** with an increasingly agile workforce open to flexible working arrangements.
- **Support for immigration expenses** for eligible new and existing staff, including:
 - Relocation allowance
 - Visa Reimbursement
 - Interest-Free Loan

Equality, Diversity and Inclusion

We consider ourselves to be an inclusive university, where difference is celebrated, respected and encouraged. We have an excellent international reputation with staff from over 60 different nations and have made a positive commitment towards gender equality and intersectionality receiving a Silver Athena SWAN award. We truly believe that diversity of experience, perspectives, and backgrounds will lead to a better environment for our employees and students, so we encourage applications from all genders, backgrounds, and communities, particularly from under-represented groups, and value the positive impact that will have on our teams.

We are very proud to be an autism-friendly university and are an accredited Disability Confident committed to building disability confidence and supporting disabled staff.

Find out from our staff what makes the University of Bath a great place to work. Follow us @UniofBath and @UniofBathJobs on X for more information.

Application process



How to apply

Please follow this link: <https://www.bath.ac.uk/jobs/KP13339>

Key dates

Closing date for applications

16th March 2026

Key dates

Shortlisting	30th March 2026
Invitation to interview/feedback	6th April 2026
Campus Interview	20th - 21st April 2026

We welcome informal discussions via phone or online to help you learn more about the role. Please note that reasonable travel and accommodation expenses will be reimbursed to support your attendance.

Contact information

Please get in touch with us if you would like more information.



Aswin Satheesh Raju

Talent Acquisition Researcher

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☎ +44 1225 387054

🌐 [linkedin.com/in/aswinsatheesh/](https://www.linkedin.com/in/aswinsatheesh/)

What to expect

We want your experience to be as seamless as possible. Here's a quick summary of what to expect during the process.

- Notification of Shortlisting and Feedback**

Should your application be shortlisted, we will inform you promptly and invite any questions you may have at this stage, ensuring a transparent and informative process.
- Arrangements Confirmed for the Campus Interview**

Prior to your campus interview, we ensure all details are confirmed and communicated, providing an opportunity for you to seek any clarifications or ask additional questions to fully prepare for our discussion.
- Campus Interview**

The assessment will take place over a single day, comprising a formal one-hour interview, a presentation to the panel, and a tour of our facilities.
- Decision/Verbal Offer**

Following your final interview, you will receive a formal decision regarding your application. Feedback is available upon request for all candidates to support your professional development. If you are successful, we will extend a verbal offer and open the floor for any questions regarding the specifics of the role, the package, and next steps, ensuring you have all the information needed to make an informed decision.
- Formal/Written Offer**

With the issuance of a formal written offer, we encourage you to review and reach out with any questions or for clarifications on any aspect. Our goal is to ensure your complete understanding and comfort with the terms presented.
- Offer Accepted**

Following the acceptance of the offer, we reiterate our commitment to ongoing support and dialogue. As you transition into your new role, we are here to assist, listen, and address any questions that arise.
- Continued Support**

Our support extends beyond the recruitment process. We are dedicated to fostering an environment of open communication, offering guidance and answers to your questions as you integrate into our team and culture.