

Dr Yousif Al-sagheer



Yousif Al-Sagheer is a research fellow in the School of Chemical Engineering at the University of Birmingham, specializing in the integration and control of fuel cell systems. He completed his PhD on balancing renewable energy fluctuations using hydrogen fuel cells and water electrolyzers, focusing on hardware-induced events to improve system reliability and provide design recommendations. He has developed model predictive controllers based on feedback theory.

Currently, Yousif manages the Fuel Cell Systems Research Group at the Birmingham Centre for Fuel Cells and Hydrogen Research, where he co-supervises Master's and PhD students. He is also involved in the ATETA project, offering consultancy to SMEs in the Greater Birmingham and Solihull area. Yousif earned his MSc and BSc in Nuclear Energy Engineering from the University of Baghdad and has experience teaching undergraduate courses in heat transfer, advanced mathematics, and measurements & instrumentation.

Dr Hadi Heidary



Dr. Hadi Heidary earned his Ph.D. in Mechanical Engineering from Amirkabir University of Technology (Tehran Polytechnic). His research focuses on improving the performance and durability of Polymer Electrolyte Fuel Cells (PEFCs), with over 25 journal papers, 15 conference presentations, and two book chapters to his name. He spent six months during his Ph.D. at the Centre for Fuel Cell Research at the University of Delaware.

Dr. Heidary is recognized for his expertise through invitations to review for leading journals such as *Renewable Energy* and *International Journal of Hydrogen Energy*. With 14 years of industrial experience as an R&D manager in the power sector, he has also secured grants for multiple industrial projects. In 2023, he joined the Centre for Hydrogen and Fuel Cell Research at the University of Birmingham as a Marie Curie Research Fellow.

Dr Bernardo Sarruf



Bernardo has been working in the field of Solid Oxide Fuel Cells (SOFC) since his undergraduate studies. As a student, he founded a company focused on microstructural characterization using image analysis and provided consultancy in areas such as materials selection, mechanical design, and iron ore enrichment via direct hydrogen. After earning his PhD in 2018, he has concentrated on SOFC development as a research fellow and project manager.

He has been involved in organizing and scientific committees for the 22nd World Hydrogen Energy Conference, served as subject assistant editor and financial director for the *Materia* journal, and was a special issue guest editor for the *International Journal of Hydrogen Energy*. Bernardo has also consulted on SOFC testing standards for the Brazilian Association of Technical Standards. He received the "CAPES Thesis Prize 2019" for his outstanding thesis work and has been engaged in teaching since 2011 as an invited lecturer and Collaborator Professor at the Polytechnical School of Engineering, Federal University of Rio de Janeiro.

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Dr Kun Zhang

Kun Zhang earned his BEng in Chemical Engineering and Technology from North University of China in 2012. After a year as an engineer at Shandong Chambroad Petrochemicals, he pursued an MSc in Advanced Chemical Engineering at the University of Birmingham, focusing on Nafion membrane development for fuel cells. Kun joined the Centre for Hydrogen and Fuel Cell Research in 2014, working on a European project (STAMPAM) for bipolar plate coatings in PEMFCs while completing his MRes. He continued with a PhD at the same Centre, researching high-temperature corrosion and Cr evaporation in high-Cr alloys for SOFCs. In 2020, Kun became a research fellow at the School of Chemical Engineering, University of Birmingham, where he now focuses on advancing computational modeling services at NovaSci, utilizing software like MARC, ANSYS, and CFX.

Dr Paula Blanco-Sanchez

Dr. Paula Helena Blanco Sanchez is a Senior Lecturer in Chemical Engineering at Aston University, specializing in biomass conversion for high-value fuels and chemicals. Her research includes syngas and hydrogen production, green catalyst development, bio-oil upgrading, pyrolysis, and gasification. She is a Co-Investigator on the Supergen Impact Hub, focusing on low carbon hydrogen technology, and is affiliated with the Wolfson Centre for Low Carbon Hydrogen. Dr. Blanco Sanchez is also involved in the HyDex project, which aims to develop a hydrogen industrial economy in the Midlands. She recently completed a Royal Academy of Engineering project on biomass thermal conversion with the Indian Institute of Ropar and A2P, addressing paddy straw burning by converting it into energy and soil conditioners. She serves on the editorial board of the Carbon Capture Science & Technology Journal since 2022 and represents the UK in the International Energy Agency Task 33 on Biomass Gasification.