

2nd HYDEA Webinar

Decarbonizing Trends in Atlantic Ports: Roadmap for Hydrogen Transport, Storage and Market Applications

Prof. Paulo Rosa Santos

Full Professor at the Department of Civil and Georesources Engineering – Faculty of Engineering of the University of Porto.



Executive Vice-President of Instituto para a Construção Sustentável (ICS) of University of Porto. Head of the Hydraulics, Water Resources and Environment Division of DECG-FEUP. Director of the Hydraulics Laboratory at FEUP. President of the Portuguese Water Resources Association – North Branch. His research interests include: marine renewable energies, coastal and offshore structures, physical and numerical modelling, climate change adaptation, and coastal resilience. In the last 20 years, he collaborated in +80 R&D projects and consultancy studies in those fields. Supervisor/Co-supervisor of +6 PhD Thesis (concluded) and +9 PhD students (ongoing), and + 55 M.Sc. Dissertations. Author of +260 papers published in peer-reviewed scientific journals and conference proceedings (+80 papers in Q1 journals, h-index +30 Scopus). Chartered Engineer (2004), Senior Member (2013) and Specialist in Hydraulics and Water Resources (2019) by the Portuguese Engineering Council. Independent Expert evaluator of R&D proposals for different national and international entities. Principal Investigator or Researcher of +20 R&D projects in the field of ocean renewable energies and coastal engineering.



Dr. Daniel Clemente,

Post-Doctoral Researcher at FEUP and the Centre of Marine and Environmental Research of the University of Porto (CIIMAR)

Daniel holds a Ph.D. in Civil Engineering - Hydraulics, Water Resources and Environment. He has been developing marine renewable energy technologies through physics and data-driven methods, since his M.Sc. proof-of-concept of the E-Motions wave energy converter (WEC). Daniel also studies potential applications and synergies of WECs, such as offshore aquaculture, triboelectric nanogenerators, desalination, green hydrogen and coastal protection. He is a member of CIIMAR's Scientific Committee, the European Marine Board's ECOP, of APRH, an INOREan, and Vice-President of IAHR YPN Portugal.

**M.Sc. Lawrence****Ph.D. student, University of Porto, FEUP**

Lawrence is a researcher in the department of Civil Engineering, Hydraulics, Water Resources and Environment section. He specializes in designing coastal defense structures that integrate machine learning.

**Dr. Cian Moran****Project Manager, Hive Hydrogen**

Cian joined HIVE Hydrogen in May 2024 and works as a consultant and project manager across a number of research and infrastructure projects. Prior to joining HIVE Hydrogen, Cian completed his PhD in mechanical engineering on the topic of hydrogen production and supply chains at the University of Galway, Ireland. Having worked on a number of industry-collaborative projects during his PhD, Cian has published three academic papers and presented at multiple international conferences. Prior to his PhD research, Cian worked as a Product Development Engineer for award-winning smart grid technology company VIOTAS and has a bachelor's degree in Energy Systems Engineering from the University of Galway.

**Eng. Hugo Lopes,****Director of Development and Sustainability at APDL**

Hugo Lopes is a civil engineer specializing in hydraulics, coastal engineering, and physical modeling, currently serving as Director of Development and Sustainability at APDL. With a PhD in Civil Engineering and a MBA from Porto Business School, he has over 10 years of experience in port infrastructure development. Hugo combines his executive role with academic engagement as an Invited Associate Professor at ISEP and active participation in professional organizations including APRH, PIANC International, and ICS FEUP, making him a recognized expert in sustainable maritime infrastructure in Portugal.

**Eng. Gerardo González Álvarez****Head of Works and Blue Economy, Port of Vigo**

Gerardo works as head of the Works and Blue Economy department at the port of Vigo. Gerardo is a Civil Engineer (Meng). He has been working for the port of Vigo for the last 7 years and his previous experience involves working for a major construction company both in Spain and for international projects in Europe, Middle East and USA. He is currently involved in several projects related to coastal and marine infrastructures and also all the projects related to the Blue Growth Strategy of the Port of Vigo. He is a deadline driven and quality focused team leader experienced in budget management, client demands, strategic direction and team building. His goal is to improve the biological status of port waters while improving operational capabilities of infrastructures.