Farhan Haider Joyo

Date of birth: 01/04/1993 | Phone: (+39) 3452235070 (Mobile) | Email address: farhanhaider.joyo@uniroma1.it | LinkedIn: https://www.linkedin.com/in/farhan-haider-610ab2116/ | Address: Via Dei Giardinetti 106, 00133, Rome, Italy (Home)

About me

PhD Researcher in renewable energy systems with expertise in techno-economic analysis and digital modeling of national-scale energy scenarios, focusing on integration of green hydrogen and ammonia as alternative energy carriers.

Education & Training

Ph.D. in Energy & Environment (2023 – Present) | Sapienza University of Rome | 01/11/2023 - Current | Rome, Italy

Master of Engineering in Manufacturing Engineering | Mehran University of Engineering & Technology Jamshoro | 03/03/2017 - 31/12/2019 | Jamshoro, Pakistan

Address: MEHRANUET INDUS HIGHWAY JAMSHORO76060

Bachelor of Engineering degree in Mechanical Engineering | Mehran University of Engineering & Technology Jamshoro Pakistan | 02/01/2012 - 04/03/2016 | Jamshoro, Pakistan

Address: MEHRANUET INDUS HIGHWAY JAMSHORO76060

Certified 4 Week Training Operation And Maintenance Of Automatic Pipeline Welding | Automatic Welding Systems Ltd | 08/11/2016 - 02/12/2016 | Corsham Wiltshire , United Kingdom

Address: Unit A1 Fiveways Trading Estate Hawthorn Corsham Wiltshire England SN13 9RG

Language Skills

Mother tongue(s): **Urdu**

	Understanding		Speaking		Writing
	Listening	Reading	Spoken production	Spoken interaction	
English	C2	C1	C1	C1	C1

Skills

EnergyPLAN | HOMERPro | Aspen HYSYS & Aspen Plus | DWSIM Simulation | Engineering Equation Solver | Primavera P6 (Resource Management) | Techno-economic analysis | MATLAB | AutoCad 2D -3D | Microsoft Office

Conferences & Seminars

SDEWES ROME | 08/09/2024 - 12/09/2024 | Rome

Author, presented the research work.

Member Local organizing committee.

Professional Experience

Project Researcher - SPOWIND (Interreg Euro-MED Project), Sapienza University of Rome (Mar 2024 – Present) | 01/03/2024 - Current

Offshore Wind Planning, Power-to-X Integration, Techno-Economic Analysis.

Conducting comparative studies on energy delivery pathways (direct electricity transmission vs. hydrogen/ammonia carriers), including cost-benefit and risk analysis.

Assessment of LCOE and LCOH to inform strategic development of offshore wind infrastructure.

Senior Services Engineer (HVAC) - PAK AC Maintenance, Pakistan | 25/01/2019 - 05/12/2023

Managed HVAC installation and maintenance projects in commercial buildings, honing project management and client coordination skills.

Review and approve technical documentation, drawings, and contractor submittals.

Coordinate with contractors, consultants, and cross-functional teams for smooth project execution.

Perform load calculations, energy modeling, and system performance assessments.

Develop mechanical system layouts, schematics, and detailed design calculations.

Oversee the integration of HVAC systems with electrical, plumbing, and other building services.

Manage and mentor junior engineers and coordinate with multidisciplinary teams.

Support construction activities, including site inspections, commissioning, and troubleshooting.

Liaise with clients, architects, consultants, and contractors to ensure timely and cost-effective project delivery.

Provide technical leadership in sustainable HVAC design, energy efficiency.

Trainee Engineer, Sui Southern Gas Company, Pakistan | 14/04/2016 - 25/01/2019

Assisted in construction of a 42-inch gas pipeline, gaining field experience in large-scale infrastructure projects and safety standards (foundation for understanding pipeline aspects of offshore projects).

Monitor construction activities to ensure compliance with engineering specifications, safety standards, and project timelines.

Participate in material inspection, testing, and quality assurance processes.

Help prepare technical reports, project documentation, and progress updates.

Publications

Hydrogen and Ammonia Production and Transportation from Offshore Wind Farms: A Techno-Economic Analysis

https://doi.org/10.3390/en18092292

Achieving Energy Sustainability of Pakistan’s Power Sector Through Long-term Scenario Modeling and Analysis

https://doi.org/10.1016/j.energy.2025.136549

Decarbonization pathways for the pulp and paper industry: A comprehensive review

https://doi.org/10.1016/j.rser.2025.116070