

Curriculum Vitae

Personal Information

Roberto Volpe

School of Engineering and Materials Science, Queen Mary University of London

e-mail: r.volpe@qmul.ac.uk

Academic Qualifications

PhD Bioenergy, 2008. University of Palermo, Italy

MBA, 2003. SDA Bocconi School of Management, Milan, Italy

MEng (*summa cum laude*) Mechanical Engineering, 1998. University of Palermo, Italy

Memberships, Recognitions

Fellow of the Higher Education Academy (FHEA)

Member of the American Chemical Society (ACS)

Member of the Institution of Chemical Engineers (IChemE)

National Scientific Habilitation (ASN), Italian Ministry of Education and Research:

Associate Professor, Chemical Plants and Industry Processes.

Associate Professor, Engineering Physics.

Present Appointments

2021 –. Senior Lecturer in Chemical Engineering. Queen Mary University of London.

Oct 2023 –. Visiting research scholar. Department of Mechanical Engineering. Massachusetts Institute of Technology.

Previous Appointments

2017-2021. Lecturer in Chemical Engineering, Queen Mary University of London.

2012-2017. Lecturer in Thermodynamics. University of Enna "Kore", Italy

2017. Visiting scholar. School of Engineering and Materials Science. Queen Mary University of London

2015. Visiting scholar. Department of Chemical Engineering. Imperial College London

2008 – 2012. Postdoctoral Research Associate. Dept. Agricultural engineering. University of Palermo, Italy

(2005 – 2008, PhD in Bioenergy. Dept. Agricultural engineering. University of Palermo, Italy)

2003 – 2005. Consultant (public and private sectors), Renewable Energy and development

(2002-2003, Full Time MBA course at SDA Bocconi School of Management, Milan. Italy)

2000 – 2002. Project Manager Tunnel Ventilation Mott MacDonald Ltd. UK

1998 – 2000. Project Engineer Tunnel Ventilation Mott MacDonald Ltd. UK

Student Experience and Education (Queen Mary University of London)

Administrative

Deputy Head of Education. School of Engineering and Materials Science. 2022 - present

Programme Director Chemical Engineering. 2018-2022

responsible for:

- the design of a new BEng and MEng programme in Chemical Engineering;
- liaising with the Institution of Chemical Engineers (IChemE);
- Preparing documentation for IChemE benchmark visit (Sept 2019) and accreditation (Sept. 2021).

Deputy Director for Student Experience (Senior Tutor). School of Engineering and Materials Science. 2022

Deputy Head of Division Chemical Engineering and Renewable Energy. 2018.

Teaching

Current

Module organiser: EMS518 – Chemical Reaction Engineering (Level 5, 15 credits, 46 students);
I was responsible for designing the module in year 2017 at QMUL.

Module organiser: EMS705 – Environment, Ethics and Economics in Engineering (Level 7, 15 credits, 60 students)

Deputy module organiser: EMS607 – Catalysis and Reaction Design (Level 6, 15 credits, 72 students);

Previous

Module organiser: DEN5410 – Integrated Chemical Engineering Design (Level 4, 15 credits, 44 students)
I was responsible for designing the module in year 2018.

Deputy module organiser: DEN6410 – Integrated Chemical Engineering Design Project. (Level 6, 30 credits, 38 students)

Final year design mixed group/individual project for Chemical Engineers.

Supervisions

I graduated 3 PhD students

1. Uroosa Tagar (2023). Thermochemically modified bio-based materials for water remediation;
2. Meredith Rose Barr (2021). Evolution of the solid state during pyrolysis of lignocellulosic biomass;
3. Maryanne Chelang'At Mosonik (2023). *In-situ* study of biomass pyrolysis and the utilisation of its solid products in Reverse water-gas shift reaction.

I currently supervise 3 PhD students:

1. Waqas Malik (3rd year). Synthesis of carbon-based catalysts for the sustainable upgrade of agro-waste pyrolysis products into biofuels;
2. Wasif Sardar Khan (2nd year). Synthesis of polymeric/pyrolytic carbons composite heart valves;
3. Anna Scettri (2nd year). Functionalised biochar for removal of antimicrobial resistance (AMR) determinants in wastewaters.

I supervised, the following visiting PhD students:

1. Andrew Harrison Hubble (3rd year) Cornell University, USA. 2021;
2. Seyedeh Masoumeh Safavi (2nd year) University of Iceland, IS. 2019;
3. Manfredi Maniscalco (2nd year) University of Enna "Kore", Italy. 2018-19.

I supervised/currently supervise >20 MEng and MSc students

Tutoring: I currently advise 36 undergraduate students in Engineering.

Student Experience and Education (University of Enna "Kore", Italy)

Designed new taught MSc courses. Year 2013

- Energy efficiency and renewable energy sources;
- Environmental Evaluation procedures.

Taught University courses

- Engineering Thermodynamics. Aerospace and Environmental Engineering 2013-2017 (20 students);
- Notions of Energetics. Engineering and Architecture. 2014-2016 (20 students).

I supervised (2012-2017) 13 MEng and 2 MSc final year projects.

Research

Publications

41 papers (12 as corresponding author), 1 patent, 1 book chapter, 1042 citations, H-Index 20 ([Scopus](#))
(* by my name indicates corresponding author; ► indicates most significant paper, 2021-23)

2023

1. Picone A., Volpe M., Codignole Lüz F., Malik W., Volpe R., Messineo A. Co-hydrothermal carbonization with process water recirculation as a valuable strategy to enhance hydrochar recovery with high energy efficiency. (2024) *Waste Management* 175, 101