

# Previous projects

## Chemical and Processing Engineering

- Set up a photobioreactor for microalgae cultivation, and analyse the microalgae (in suspension and after extraction) from different stages of growth using spectroscopic and analytical methods
- Undertake project work on electrochemical processes related to Netzero processes
- Synthesis of biochar materials, as well as the characterisation and testing of the chars
- Manufacture, characterisation and testing of new systems for water treatment processes focussing on pesticides

## Pure and Applied Chemistry

- Plants as indicators of heavy metal pollution in the urban environment
- Free Radical and Electron Transfer Reactions
- Alkali Metal mediation in Synthesis and Homogeneous Catalysis

## Strathclyde Institute of Pharmacy and Biomedical Sciences

- Support the research activity of their group in the field of cardiotoxicity related to anti-cancer drugs
- Training on key molecular biology techniques in cancer drug discovery (for example, cell culture, immunochemistry, confocal imaging, and image analysis)

## Civil and Environmental Engineering

- conduct lab experiments on moisture transport and salt crystallisation through porous materials or cement chemistry design
- support the research activity of his group in the field of monitoring bridges exposed to bridge scour risk
- understand modern techniques for managing uncertainty and in particular for uncertainty quantification

## Electronic and Electrical Engineering

- research in the area of the design and simulation of control algorithms for three-phase four-wire converters

## Design Manufacture and Engineering Management

- Recrystallization dynamics of Inconel 718 superalloy at high strain rates

## School of Humanities

- Law - Research and data analysis on 'the impact of climate change on the ocean and on societies, particularly women and marginalised groups, and 'ocean governance and culture'
- Languages - The translation of scientific texts in the long nineteenth century in Italy