

PhD studentship: Experimental and Computational Study of Filtration and Separation Process

School of Science and Engineering, Teesside University
Company: PSI Global Ltd

A 3 years full-time PhD position is available in School of Science and Engineering at Teesside University. The appointed student will need to spend about 50% of their time at PSI Global in Stockton on Tees.

The Vacuum pumps or the compressors used are oil lubricated to reduce the wear and tear of the system, but the oil lubrication leads to an increase in exhaust emissions. The oil separators used at near exhaust and the Oil-mist eliminators are used at the exhaust of the compressor or the vacuum pump to reduce the aerosol content in the exhaust emissions.

The majority of the studies have been focused on using empirically derived expressions to predict macro-scale properties which do not reflect the complete picture of the flow physics in the filtration product. Hence, it is critical to use Computational Fluid Dynamics (CFD) to study and understand the flow field, pressure drop and capture efficiency of the filtration product.

Further information:

The studentship will cover tuition fees of £7290 (the current Home fee) and provide an annual tax-free stipend of £14,296 for three years, subject to satisfactory progress. There is also an allowance of £1000 per year to cover training.

If you are an International student you should note that only the current UK Home fee is covered by the award. International fees are **£13,650** per annum and you would be expected to make up the difference of **£6,360** per annum from your own funds.

First class degree or equivalent and hold a Master level qualification in Aerospace, mechanical Engineering or related Engineering degree. Knowledge in fluid mechanics/ Aerodynamics, CFD, C++, Matlab and image processing will be considered in selecting the candidate.

You can [apply online](#) for this opportunity:

Please use the PhD full time application form, and state the studentship title and Director of Studies (Dr Faik Hamad).

For administrative enquiries, please contact **Lorraine Smeltzer** (Lorraine.Smeltzer@tees.ac.uk)

For information about the studentship Dr Faik Hamad (F.Hamad@tees.ac.uk) or Lloyd Cochrane (lloydco@PSIGlobal.co.uk)

Key dates:

Closing Date: Friday 22th September 2017 (5pm). We envisage that interviews will take place in September 2017. The successful applicant will be expected to start on 2nd October 2017.