Higher Degree Research PhD Scholarship

ZERO-CO_2 PRODUCTION OF ESSENTIAL TECHNOLOGICAL METALS

Factors that affect elemental partitions of by-products from novel hydrogen iron and steelmaking processes based on New Zealand ironsand

AUD$30,000 PER YEAR TAX-FREE

The project is focussed on developing an understanding of how to handle and utilise the DRI product and by-products of a hydrogen reduced native New Zealand iron ore. The project forms part of an overarching program focused on removing fossil fuels from the iron and steelmaking route to reduce the CO_2 footprint of the steelmaking process.

This exciting PhD opportunity will involve the assessing and characterising the exchange of elements within the DRI product and by-products for selected/key variables.

The student will have the opportunity to develop transferable skills ranging from thermodynamic modelling and high temperature processing to using high end characterisation tools such as SEM, XRD, XRF and ICP.

There will also be opportunities to develop your communication skills through (required) interactions with our research and industrial partners and drafting journal publications and technical reports.

We invite applications from top quality graduates with a degree (or about to gain a degree) in metallurgy, chemical engineering, materials science/engineering or equivalent. You should have, or expect to obtain, at least an upper second class degree and be strongly motivated by doing independent research.

UNIVERSITY OF WOLLONGONG AUSTRALIA

HOW TO APPLY

Applicants are encouraged to contact Professor Brian Monaghan, School of Mechanical, Materials, Mechatronic and Biomedical Engineering with an Expression of Interest (EOI). The EOI should be sent via email (monaghan@uow.edu.au) and should include a short statement explaining your interest in the project and a copy of your current academic record.

It is expected that the successful applicant is available to commence the scholarship during 2021.

Applications close 30 April 2021.