



The
University
Of
Sheffield.

International Faculty
CITY College.

SEERC –
Call for
Sponsored
PhD
Applications
2018-2019.



PhD Studies at SEERC

Call for Applications for an Industry Sponsored PhD on Hybrid Life Cycle Assessment of Functional Materials and Devices

(Submission Deadline: October 5, 2018)

1. Introduction

The University of Sheffield and its research center SEERC is offering one scholarship position to read for a PhD on the following topic:

Hybrid Life Cycle Assessment of Functional Materials and Devices

The scholarship includes:

- A fee waiver offered by the University of Sheffield and its International Faculty, City College and
- A stipend to a total cost of 6,800€ per annum for 3 years sponsored by Johnson Matthey (<https://matthey.com/>)

The scholarship is valid for 3 years, provided that satisfactory progress is shown every year.

2. The PhD Programme

SEERC gives the opportunity to qualified students to read for a Doctoral Degree at the University of Sheffield through a combination of high quality UK studies and a unique research infrastructure in South East Europe. The PhD candidates are enrolled and study at one of the Departments of the Faculties of the University of Sheffield in the UK while being supported by the SEERC team and infrastructure in SEE. When they successfully finish their studies they receive their degrees directly from the relevant Department at Sheffield, UK.

3. Entry Requirements

The University has clear minimum entry requirements. These are the following:

- A relevant first Degree (Normally with Distinction)
- A Master's Degree (Normally with Distinction)

➤ Proof of English Language Qualifications

For the proposed Research Topic the standard English Language requirement is IELTS at 7.0 with a minimum of 6.0 in each component or equivalent.

<http://www.sheffield.ac.uk/postgraduate/research/englang>

4. Submission process

The topic on which we accept applications is the following:

Research Track 1: Enterprise Innovation and Development	
Topic :	Hybrid Life Cycle Assessment of Functional Materials and Devices

In order to apply, PhD candidates need to download the [Application Form](#) along with the [Guidance Notes](#) from SEERC's web site¹, complete the application, and then send, by post the application folder to SEERC.

Please note that incomplete applications will be disqualified from the process. Candidates have to ensure that all supporting documentation is included in the application. The application form and supporting documents should be accompanied by a **Research Proposal** and an updated **CV**. **The CV and the proposal of the PhD candidate should be sent electronically also, by e-mail at phd_admissions@seerc.org**

The **Research Proposal** should be typed, the length should be about 1,500 – 2,000 words (6 to 8 pages) and should include the following:

- a) *Title of the proposed thesis*
- b) *Reference to one of the Specific Research Topics (section 6)*
- c) *Proposed mode of work (full time or part time)*
- d) *Proposed source of Funding: Fee Waiver (Full time Only), Personal funding, funded by any other institution/organization e.t.c.*
- e) *Background to research topic*

¹ <http://www.seerc.org/new/index.php/doctoral-programme/how-to-apply.html>

This section needs to introduce the topic before discussing it in relation to wider academic debates. The section might seek to situate the topic and highlight why the issue being addressed is important - this should be identified and justified as an important/interesting academic issue not simply in terms of current media/political/popular interest.

f) Specific problem(s) to be examined

In this section the discussion of the topic needs to be more specific. The focus should include reference to the framework or conceptual approach that the research might seek to draw on. Also the discussion is likely to highlight and make reference to parallel, comparable and complimentary research. The aim of this section is essentially to set up the area of research specifically. The challenge is to ensure that the proposed research has a substantive empirical and conceptual focus, both of which are suitably grounded in contemporary academic debate with appropriate citations to relevant literature. By the end of the section a gap in existing knowledge needs to be highlighted and the research questions(s) that the thesis will address be stated.

g) Methods of research proposal, plan and timetable of work

The research methods section needs to highlight what methods will be used and how, with an appropriate level of detail. In the case of quantitative research the data set to be accessed and used should be identified and the nature of proposed statistical analysis detailed. In the case of more qualitative research, again the methods should be elaborated and proposed stakeholders/populations to be interviewed/surveyed should be detailed. Due consideration should be given to accessing relevant data/interviewees. Proposals should also highlight ethical issues and potential limitations.

h) Resources available and required (if any)

i) Any other information in support of your proposal

j) The proposal should include correct literature citations and a brief bibliography

All applications should be submitted at SEERC by October 5, 2018 (postmarked). (PLEASE NOTE THAT ON THE ENVELOPE/FOLDER SHOULD BE CLEARLY WRITTEN “SEERC-SHEFFIELD DOCTORAL PROGRAMME APPLICATION FOLDER”)

Moreover, **an electronic version of the Research proposal and the CV should be sent by October 5, 2018 by email to SEERC at phd_admissions@seerc.org.**

Incomplete applications missing one or more documents or failure to submit the hard copies of the application by post (i.e. submission only of the proposal in electronic form) to SEERC will result to the application's disqualifying.

The possible outcomes of your application are:

- Acceptance to read for a PhD with a fee waiver (FULL TIME candidates only)
- Rejection

All candidates will be informed on the outcome of the evaluation procedure, which may involve an interview at SEERC premises with the proposed supervisors.

A step-by-step guide to submitting your application	
Step 1:	Read in detail the requirements from this Call for Proposals
Step 2:	Download the application form
Step 3:	Read the Guidance Notes for completing it
Step 4:	Prepare Research Proposal and an Updated CV according to Guidelines
Step 5:	Prepare supporting documents for inclusion in the application pack
Step 6:	Send by post or in person 1 envelope with the application and all the supporting documents to SEERC. Do this by October 5, 2018 (post stamp as proof of validity of the application).
Step 7:	Send by October 5, 2018 the Research proposal and the updated CV by e-mail to phd_admissions@seerc.org

5. Research Topic description

[Topic: Hybrid Life Cycle Assessment of Functional Materials and Devices](#)

Functional Materials and Devices are used ubiquitously in the aerospace, automotive, telecommunications and energy sectors. However, their ability to deliver the required functionality often relies on the use of expensive and rare raw materials whose mining and extraction are subject to significant geopolitical uncertainty. This project aims to assess the environmental impact of the fabrication of functional materials and devices using Hybrid Life cycle Assessment. HLCA combines process and input-output LCA to give not only an assessment of the climate change impact from the use of carbon based energy sources but also a series of wider environmental impacts across the supply chain. The project is based at Thessaloniki Campus of The University of Sheffield but will be co-supervised by Prof Lenny Koh (<https://www.sheffield.ac.uk/management/staff/koh/index>) and Prof Ian Reaney (<https://www.sheffield.ac.uk/materials/staff/imreaney01>) who are located at the UK Campus in Sheffield; and Prof Panayiotis Ketikidis (https://citycollege.sheffield.eu/frontend/members_profile.php?m=20) who is located at the Thessaloniki Campus. This research is part of [Advanced Resource Efficiency Centre \(AREC\)](#) research programme between AREC UK and AREC Europe. Short term secondments to Sheffield will be employed to create greater project integration along with meetings in Thessaloniki (3 per annum) and monthly Skype calls.



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