School of Aeronautical, Automotive, Chemical and Materials Engineering

Department of Chemical Engineering

Research Assistant- Process Development for Novel Formulation Coatings
(Part-time (0.5 FTE), Fixed Term until 30 June 2019)

Job Ref: REQ17687

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

The project, funded by Innovate UK, aims to develop a new formulation automotive coating and associated production methods. The development of the new formulation coating with enhanced surface properties, such as hardness, abrasion resistance and anti-fingerprinting, achieved through the introduction of nanoparticles in the formulation whilst maintaining desirable optical properties (clarity and colour), will proceed in parallel with process development to ensure that the desired properties are reproducible from bench\formulation to manufacturing scale. The main objective of the project is therefore to assess and develop processes for the new formulation coating, such that the enhanced final product properties are maintained in coatings manufactured in quantities beyond lab scale to ensure industrial scale manufacture and commercialisation.

The project team involves an industrial partner and the successful candidate will be part of a collaborative, multidisciplinary team, engaging with the activities at both Loughborough University Chemical Engineering Department and the industrial partner.

The successful candidate will mainly be based at Loughborough University to conduct experimental and numerical research whilst some work may also be performed at the industrial partner's site and will maintain strong links with the industrial partner.

To be considered for this post, you must have a good first degree (minimum of a second class, upper division) in Chemical Engineering or a related discipline; post-graduate degree or industrial experience in a related area is desirable. You will have a genuine desire to make a significant contribution to the project. You will have excellent communication and inter-personal skills in conducting engineering projects both individually and as part of a team.

Job Description

Job Grade: Specialist and Supporting Academic Grade 5

Job Purpose

The Research Assistant will contribute to the programme activities by conducting research on mixing and dispersion processes, design and scale up, which will include assisting the experimental set-up, performing numerical modelling, analysis and presentation of results and dissemination of these through appropriate routes.

Job Duties

Job duties will include the following:

- To undertake research individually and within a team, by contributing to the plan of work, assisting experimental set up, making use of experimental and numerical modelling techniques relating to fluid mixing and dispersion processes.

- To conduct literature searches as required.
- To analyse results from the research programme.
- To report findings in written form and giving oral presentations for both project partners and reviews and external research publications.
- To attend project meeting at Loughborough and industrial partner's site, where required observe the work performed at the industrial partner's site.

Points to Note

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

Special Conditions

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equality & Diversity policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity, Information Security Awareness Training and, where appropriate, Recruitment and Selection.

Organisational Responsibility

Reports to Dr Nerime Gül Özcan-Taşkın.

Person Specification

Your application will be reviewed against the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

1 – Application
2 – Test/Assessment Centre/Presentation
3 – Interview

Essential Criteria

Area	Criteria	Stage
Experience	Prior experience in either industry or academia Previous experience in the area of fluid mixing processes Proven track record of devising an experimental programme, conducting research (experimental and\or numerical), analysing results	1, 2, 3
Skills and abilities	Excellent communication skills (both written and oral) Reporting in written form and\or as an oral presentation Interpersonal skills Ability to work both alone and as part of a team Observance of health and safety rules	1, 3
Training	Willingness to undertake training when necessary	3
Qualifications	A good honours degree (2:1 or above) in Chemical Engineering or a related discipline	1
Other	Commitment to observing the University's Equal Opportunities policy at all times	3

Desirable Criteria

Area	Criteria	Stage
Experience	Postdoctoral experience in a relevant area Some experience in dispersion processes, in particular deagglomeration or breakup in liquid-liquid dispersions	1, 2, 3
Skills and abilities	Ability to present research findings to a variety of audiences	1, 3
Qualifications	A higher qualification in Chemical Engineering or related discipline PhD in Chemical Engineering or a related discipline	1

Conditions of Service

The position is part time (18.5 hours per week) and fixed term until 30 June 2019. Salary will be on a Specialist and Supporting Academic Grade 5, £23,879 pro rata per annum. Subject to annual pay award.

The appointment will be subject to the University's normal Terms and Conditions of Employment for Academic and Related staff/Operational and Administrative staff, details of which can be found here.

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which are available at http://www.lboro.ac.uk/services/hr/a-z/family-leave-policy-and-procedure---page.html.

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: http://www.lboro.ac.uk/services/hr/a-z/childcare-information---page.html

In addition, the University is supportive, wherever possible, of flexible working arrangements.
We also strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see http://www.lboro.ac.uk/services/hr/athena-swan/

Informal Enquiries

Informal enquiries should be made to Dr Nerime Gül Özcan-Taşkın, Senior Lecturer by email at N.OzcanTaskin@lboro.ac.uk or by telephone on 01509 222 500

Applications

The closing date for receipt of applications is **18 August 2017.**