



Economic
and Social
Research Council



***Improving Students' Transition to University Mathematics
in Low Resource Environments***
ESRC DTP Collaborative Studentship

Loughborough University and IDEMS International

The Midlands Graduate School is an accredited Economic and Social Research Council (ESRC) Doctoral Training Partnership (DTP). One of 15 such partnerships in the UK, the Midlands Graduate School is a collaboration between the Universities of Warwick, Birmingham, Nottingham, Aston, Leicester, Loughborough, De Montfort and Nottingham Trent.

The Department of Mathematics Education (DME) at Loughborough University as part of the Midlands Graduate School is now inviting applications for an ESRC Doctoral Studentship in association with our collaborative partner IDEMS International to commence in October 2026. **The studentship is available to students with home fee status only.**

The DME is the largest and most prominent mathematics education research centre in the UK, and Loughborough University is consistently ranked in the top 10 in the Complete University Guide and Guardian League Table of UK universities. The DME has a large and vibrant doctoral researcher community, broad expertise across research staff, and hosts regular research seminars and other events. Innovations in Development, Education and the Mathematical Sciences (IDEMS International) is a UK-based Community Interest Company. Since 2018, IDEMS has supported lecturers in African universities to automate assessment and feedback.

The aim of the project is to improve transitions from school to university mathematics in low-resource environments by understanding students' experiences of automated assessment and feedback. It is enabled by the world-leading, open-source 'STACK' system for assessment and feedback. The PhD candidate will collect and analyse log data, interviews and surveys in order to understand how first year undergraduates' navigate and engage with automated assessment and feedback. They will then experimentally test different feedback types in order to understand how STACK assessments can be better matched to student engagement. These research activities will enable the project to contribute to improving students' transitions to university mathematics in low-resource environments.

The PhD candidate will be based at Loughborough University for most of the project, and will undertake fieldwork with IDEMS' partner universities in Kenya. This is expected to involve a minimum of two 3-month visits to Maseno University in western Kenya while undergraduates are taking modules. The candidate will develop skills in educational resource development, processing and interpreting log data, and from designing, conducting and analysing interviews, survey methods and educational experiments. They will develop expertise in the feedback literature and

theories of learning advanced mathematical topics. They will also gain experience of working with African universities.

Application Process

To be considered for this PhD, please complete the Collaborative Studentship application form available online here: <https://forms.office.com/e/adnKTBNMtW>. Applicants will be required to upload an anonymised CV, anonymised cover letter, and transcripts as part of the online application process.

Application deadline: Sunday 31st May
Online interview date: Monday 8th June

Midlands Graduate School ESRC DTP

Our ESRC studentships cover fees, a maintenance stipend, and extensive support for research training, as well as research activity support grants. For further details, visit: www.mgsdtp.ac.uk/studentships/eligibility/.

Informal enquiries about the research or Department for Mathematics Education prior to application can be directed to Prof Ian Jones at I.Jones@lboro.ac.uk