Fully funded PhD studentship
University of Cambridge

Job Title	Fully funded PhD studentship
Department	Department of Engineering https://www.eng.cam.ac.uk/
Institution	University of Cambridge Cambridge, Cambridgeshire, United Kingdom
Date Posted	Nov. 5, 2024
Application Deadline	Dec. 15, 2024
Position Start Date	Oct. 1, 2025
Job Categories	Graduate Student
Academic Field(s)	Mechanical Engineering Material/Metallurgy Engineering Physics Engineering Mechanics Computer Engineering Computer Science Civil Engineering
Job Website	https://www.jobs.cam.ac.uk/job/49012/
Apply By Email	BL377@cam.ac.uk

Job Description

Users of Computer Aided Engineering applications always ask for higher computational speed and accuracy. Adopting Digital Twins broadly in the future, we expect this need to significantly increase. Recently, hybrid technologies - combining machine learning and classical simulation technologies - have been proposed to bring computational speed and accuracy of simulation tools to a new level.

Fully funded PhD studentship
University of Cambridge

They thus have the potential to address user needs significantly better.

This PhD project seeks to explore a cutting-edge hybrid approach that combines machine learning with classical simulation methods to advance computational speed and accuracy. Specifically, the project will investigate the integration of Neural Operators-efficient learning-based partial differential equation (PDE) solvers defined on simplified domains (e.g., unit squares)-with domain decomposition strategies. This hybrid methodology aims to establish a new standard in simulation performance.

We invite applications from highly motivated individuals to join this project and contribute to this exciting area of research. Applicants should have (or expect to obtain by the start date) at least a high 2.1 degree (preferably a first or its equivalent) in Engineering, Machine learning, Applied Mathematics or related subject. This studentship is open to both home and overseas applicants. The successful candidate will work collaboratively with a multidisciplinary team based in Cambridge Universiy and Siemens Digital Industry Software, gaining expertise in advanced computational methods and state-of-the-art machine learning techniques.

EPSRC ICASE studentships are fully-funded (fees and maintenance) for students eligible for Home fees. EU and international students may be considered for a small number of awards at the Home fees rate. Full eligibility criteria can be found via the following link;
https://www.postgraduate.study.cam.ac.uk/finance/fees/what-my-fee-status

To apply for this studentship, please send a two-page CV, a cover letter and transcripts to Dr. Burigede Liu (bl377@cam.ac.uk). Applications will remain open until a suitable candidate is identified; however, early applications are encouraged.

Please note that any offer of funding will be conditional on securing a place as a PhD student. Candidates will need to apply separately for admission through the University's Graduate Admissions application portal; this can be done before or after applying for this funding opportunity. The applicant portal can be accessed via: www.graduate.study.cam.ac.uk/courses/directory/egegpdpeg. The final deadline for PhD applications is 16 May 2025, although it is advisable to apply earlier than this.

EEO/AA Policy

The University actively supports equality, diversity and inclusion and encourages applications from all

Fully funded PhD studentship
University of Cambridge

sections of society.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Burigede Liu
Department of Engineering
University of Cambridge
Cambridge
United Kingdom