

Course Information Sheet for entry in 2025-26: Robotics and AI for Net Zero (EPSRC CDT)



Course facts

Mode of study	Full Time Only
Expected length	4 years

About the course

The EPSRC CDT in Robotics and AI for Net Zero (RAINZ) is a joint programme between the Universities of Manchester, Glasgow and Oxford. It will train the next generation of engineers in the robotics and AI (RAI) technologies needed to support the UK's net zero agenda.

Students on the RAINZ CDT will be trained in both research and commercialisation of robotics and AI technologies to support the lifecycle asset management of critical net zero energy generation infrastructure.

RAINZ is structured around an innovative cohort training and research model to ensure graduates are not only subject matter experts, but have highly valuable skills in teamworking, multi-disciplinary systems integration, industrial engagement, and commercialisation. Each cohort will be recruited to conduct research directed towards an industry co-created, cross-sector cohort challenge which will be different for each new cohort.

The research focus of the CDT will be on robotics and AI (RAI) to provide step-changes at each stage of the lifecycle of Net Zero energy generation assets, such as wind turbines, solar arrays, or nuclear reactors. This will be done through the creation of new innovative technologies, workflows, etc which will increase safety, reduce costs, decarbonize operations and enhance the overall viability of such systems.

Initially students will focus on the use of RAI in operations and maintenance of Net Zero assets (O&M), through inspection, maintenance, and repair activities; and in the decommissioning of infrastructure in renewables (wind, solar, geothermal, tidal, hydrogen) and nuclear (fission and fusion).

The research in the CDT will also support the decarbonization of these assets across their lifecycle phases in a diverse range of sectors. The scope of research will expand through the lifetime of the CDT to include the other lifecycle phases: design, logistics, construction, and recycling.

Within Oxford, research will focus on RAI topics aligned with the research themes of the principle investigators within the Oxford Robotics Institute.

In Year 1, students will be enrolled onto an MSc at The University of Manchester related to their PhD research. Within this year students must achieve a GPA of at least 65% in the exams to be considered for progression to the DPhil. Students will not be awarded an MSc, as the summer period will be spent undertaking a CDT summer school rather than an MSc dissertation.

Once an Oxford student has moved to the DPhil portion of the CDT, they will be based in the Oxford Robotics Institute within the group or groups of their local supervision team.

Attendance

The first year of this course is based at the University of Manchester. Following this, RAINZ students studying at Oxford will move to the University of Oxford, and will be subject to the University's residence requirements for full-time students.

Provision exists for students on some courses to undertake their research in a 'well-founded laboratory' outside of the University. This may require travel to and attendance at a site that is not located in Oxford. Where known, existing collaborations will be outlined on this page. Please read the course information carefully, including the additional information about course fees and costs.

Resources to support your study

As a graduate student, you will have access to the University's wide range of world-class resources including libraries, museums, galleries, digital resources and IT services.

The Bodleian Libraries is the largest library system in the UK. It includes the main Bodleian Library and libraries across Oxford, including major research libraries and faculty, department and institute libraries. Together, the Libraries hold more than 13 million printed items, provide access to e-journals, and contain outstanding special collections including rare books and manuscripts, classical papyri, maps, music, art and printed ephemera.

The University's IT Services is available to all students to support with core university IT systems and tools, as well as many other services and facilities. IT Services also offers a range of IT learning courses for students, to support with learning and research.

There are strong links with researchers in other departments in the mathematical and physical sciences and, ever increasingly, with researchers and practitioners in medical science departments and University hospitals.

The research clusters are well-supported by experienced teams of technical, computing, and administrative support staff. You will have access to well-equipped research areas and workshops.

Supervision

For RAINZ students based at the University of Oxford, the allocation of graduate supervision is the responsibility of the Department of Engineering Science and it is not always possible to accommodate the preferences of incoming graduate students to work with a particular member of staff.

Under exceptional circumstances a supervisor may be found outside the Department of Engineering Science.

As well as supervision, the student will be a part of a RAINZ cohort of students that will take part in meetings and training activities throughout their period of study. Students based in the Oxford Robotics Institute will also take part in group and Institute meetings.

Assessment

In the first year at the University of Manchester, students will be continually assessed as part of their MSc course. Students must achieve a GPA of at least 65% in the exams to be considered for progression to the DPhil. Students will not be awarded an MSc, as the summer period will be spent undertaking a CDT summer school rather than an MSc dissertation.

All students will be initially admitted to the status of Probationer Research Student (PRS). Within a maximum of six terms as a PRS student you will be expected to apply for transfer of status from Probationer Research Student to DPhil status.

A successful transfer of status from PRS to DPhil status will require a satisfactory research proposal and evidence of research skills (usually in the form of a draft paper). Students who are successful at transfer will also be expected to apply for and gain confirmation of DPhil status within ten terms of admission, to show that your work continues to be on track.

Both milestones normally involve an interview with two assessors (other than your supervisor) and therefore provide important experience for the final oral examination.

The final thesis is normally submitted for examination during the fourth year and is followed by the viva examination. The final award for Oxford-based students will be a DPhil awarded by the University of Oxford. To be successfully awarded a DPhil you will need to defend your thesis orally (viva voce) in front of two appointed examiners.

Changes to this course

The University will seek to deliver this course in accordance with the description set out above. However, there may be situations in which it is desirable or necessary for the University to make changes in course provision, either before or after you commence your course. These might include significant changes made necessary by any pandemic, epidemic or local health emergency. For further information, please see the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>) and our page on changes to courses (<http://www.graduate.ox.ac.uk/coursechanges>).

Costs

Annual course fees

The fees for this course are charged on an annual basis.

The fee rates at the University of Manchester for each of the first year MSc courses are published in the links under 'MSc options' on the RAINZ CDT website.

For an indication of costs at the University of Oxford, the table below shows the annual course fees for the 2025-26 academic year for the RAINZ CDT at Oxford.

Fees for the 2025-26 academic year at the University of Oxford

Fee status	Annual Course fees
Home	£10,070
Overseas	£33,370

What do course fees cover?

Course fees cover your teaching as well as other academic services and facilities provided to support your studies. Unless specified in the additional cost information (below), course fees do not cover your accommodation, residential costs or other living costs. They also don't cover any additional costs and charges that are outlined in the additional information section below.

How long do I need to pay course fees?

Course fees are payable each year, for the duration of your fee liability (your fee liability is the length of time for which you are required to pay course fees). For courses lasting longer than one year, please be aware that fees will usually increase annually. Information about how much fees and other costs may increase is set out in the University's Terms and Conditions (<http://www.graduate.ox.ac.uk/terms>).

Graduate students who have reached the end of their standard period of fee liability may be required to pay a termly University and/or a college continuation charge.

The University continuation charge, per term for entry in 2025-26 is £672, please be aware that this will increase annually. For part-time students, the termly charge will be half of the termly rate payable by full-time students.

If a college continuation charge applies (not applicable for non-matriculated courses) it is likely to be in the region of £100 to £600. Please contact your college for more details, including information about whether your college's continuation charge is applied at a different rate for part-time study.

Additional cost information

There are no compulsory elements of this course that entail additional costs beyond fees (or, after fee liability ends, continuation charges) and living costs. However, please note that, depending on your choice of research topic and the research required to complete it, you may incur additional expenses, such as travel expenses, research expenses, and field trips. You will need to meet these additional costs, although you may be able to apply for small grants from your department and/or college to help you cover some of these expenses.

Living costs

In addition to your course fees and any additional course-specific costs, you will need to ensure that you have adequate funds to support your living costs for the duration of your course.

The likely living costs for the 2025-26 academic year are published below. These costs are based on a single, full-time graduate student, with no dependants, living in Oxford. We provide the cost per month so you can multiply up by the number of months you expect to live in Oxford.

Likely living costs for one month

	Lower range	Upper range
Food	£330	£515
Accommodation	£790	£955
Personal items	£200	£335
Social activities	£45	£100
Study costs	£40	£90
Other	£20	£40
Total	£1,425	£2,035

Likely living costs for nine months

	Lower range	Upper range
Food	£2,970	£4,635
Accommodation	£7,110	£8,595
Personal items	£1,800	£3,015
Social activities	£405	£900
Study costs	£360	£810
Other	£180	£360
Total	£12,825	£18,315

Likely living costs for twelve months

	Lower range	Upper range
Food	£3,960	£6,180
Accommodation	£9,480	£11,460
Personal items	£2,400	£4,020
Social activities	£540	£1,200
Study costs	£480	£1,080
Other	£240	£480
Total	£17,100	£24,420

When planning your finances for any future years of study at Oxford beyond the 2025-26 academic year, it is suggested that you allow for potential increases in living expenses of 4% each year – although this rate may vary depending on the national economic situation.

More information about how these figures have been calculated is available at www.graduate.ox.ac.uk/livingcosts.

Document accessibility

If you require a more accessible version of this document please contact Graduate Admissions and Recruitment by email (graduate.admissions@admin.ox.ac.uk) or via the online form (<http://www.graduate.ox.ac.uk/ask/form>).

Please note that the estimated living costs above are for study at the University of Oxford. You are advised to consult the guidance about living costs at the University of Manchester for the first year of the course.