

## Course Information Sheet for entry in 2016-17

### Autonomous Intelligent Machines and Systems (EPSRC Centre for Doctoral Training)



#### About the course

The DPhil offered by the CDT provides graduates with the opportunity to develop in-depth knowledge, understanding and expertise in autonomous intelligent systems. The programme provides a comprehensive, state-of-the-art view of autonomous intelligent systems, combining theoretical foundations, systems research, academic training and industry-initiated projects and thus mixing both practical and theoretical aspects of intelligent machines and systems.

The first year is oriented towards developing your knowledge base. You will take 14 courses, each lasting one to two weeks, and your day comprises lectures each morning with laboratory sessions each afternoon. You will undertake two 8-week projects, precursors to your DPhil study, to hone your research skills and shape your main research area. You will meet your supervisor regularly to assess progress and discuss academic issues.

Years 2-4 see an increasing emphasis on individual research. A summary of projects is produced each year by supervisors, but you will be encouraged to develop projects based on your own research ideas within the four key research themes of robotics, vision and perception, machine intelligence and multi-agent systems, control and verification, and M2M (or the 'Internet of Things'), and secure sensing and actuation. Training will continue in academic reading, writing and presentation skills, business and commerce (to include innovation and IP curatorship and entrepreneurship), career development and planning, and ethics and law, where the societal implications of autonomous systems will be considered.

Research seminars are used to discuss papers, for rehearsing conference talks and for building links between groups. An annual workshop gives the opportunity to present research to students, industrial partners and invited researchers from other universities. Industrial collaborators are invited to share their latest problems and market trends and to discuss opportunities for future collaboration.

You will spend one or two months over the second or third summer in an industrial lab to gain experience in industry-led projects and expanding your horizons by engaging in an AIMS topic that is not your main one. After the end of the internship, further interaction will be encouraged by inviting your industrial supervisors to join your group in Oxford for short periods.

You will also be encouraged to take demonstrations of your systems to companies, government departments, as well as schools. In the fourth year, the cohort help organise the annual workshop, inviting keynote speakers, participating in the program committee, reviewing papers submitted by second and third year students, and publicising the workshop to universities and industrial partners beyond those directly involved in the CDT.

You will be assessed continually throughout the first year during courses and projects and at its end the CDT supervisors will assess whether sufficient progress has been made to continue to the

research phase. At the end of the second year, you will be required to write a report and give a presentation on your research, and to present a detailed and coherent plan for the research-intensive phase in the third and fourth years of your doctoral studies. Progress towards completion is again formally assessed some way into the final year of study.

For the DPhil you will be required to submit a substantial thesis which is read and examined by experts in the field, one from the department and one from elsewhere. Often the thesis will result in the publication of several journal and conference papers.

### **Changes to courses**

The University will seek to deliver each course in accordance with the descriptions 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 registration. For further information, please see the University's Terms and Conditions.

### **Expected length of course**

4 years

### **Annual fees for entry in 2016-2017**

Fee Status	Tuition fee	College fee	Total annual fees
Home/EU (including islands)	c. £4,200	£2,933	c. £7,133
Overseas	£18,770	£2,933	£21,703

The fees shown above are the annual tuition and college fees for this course for entry in the 2016-17 academic year; for courses lasting longer than one year, please be aware that fees will usually increase annually. For details, please see our guidance on likely increases to fees and charges.

Tuition and college 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 tuition and college fees).

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

The University continuation charge, per term for entry in 2016/17, is currently £440, 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 to non-matriculated courses) it is likely to be in the region of £100 to £400 per term. Please contact your college for more details.

### **Additional cost information**

There are no compulsory elements of this programme that entail additional costs beyond fees 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 fees, 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 2016-17 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 1 month		Likely living costs for 9 months		Likely living costs for 12 months	
	Lower range	Upper range	Lower range	Upper range	Lower range	Upper range
<b>Food</b>	£265	£298	£2,384	£2,673	£3,177	£3,565
<b>Accommodation</b>	£469	£667	£4,221	£6,002	£5,627	£8,006
<b>Personal items</b>	£119	£244	£1,073	£2,187	£1,429	£2,915
<b>Social activities</b>	£60	£107	£539	£960	£718	£1,280
<b>Study costs</b>	£36	£73	£314	£661	£418	£880
<b>Other</b>	£19	£44	£197	£410	£265	£547
<b>Total</b>	£970	£1,433	£8,727	£12,894	£11,636	£17,191

When planning your finances for any future years of study in Oxford beyond 2016-17, you should allow for an estimated increase in living expenses of 2% each year.

More information about how these figures have been calculated is available at [www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs](http://www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs).

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