

How to apply:

To apply you can either apply online or download the University's application form from: http://www.ox.ac.uk/admissions/postgraduate_courses/index.html You will need to submit references, transcript and a statement of research interests (in the slot marked "research proposal"), including how they relate to VERIWARE and why you are interested in the project.

You should quote the following studentship code:

10COMP-MK-WEB – if you have seen the advert on the Computing Laboratory web pages

10COMP-MK-JOBS – if you are applying from jobs.ac.uk

10COMP-MK-FIND – if you are applying from findaphd.com

All applications are subject to a £25 application fee.

Further Information: These studentships are associated with an ERC Advanced Investigators Grant recently awarded to Professor Marta Kwiatkowska from the Oxford University Computing Laboratory (OUCL) for the project "VERIWARE: From software verification to everywhere verification". These positions are associated with the ERC project "VERIWARE: From software verification to everywhere verification", under the supervision of Professor Marta Kwiatkowska. The goal of this project is the development of models and automated verification techniques for 'everyware', i.e. sensor-based ubiquitous computing devices (see <http://www.veriware.org/docs/Veriware.pdf> for a non-technical description). The project covers a broad range of topics including the following: models for ubiquitous computing devices; abstraction, refinement and synthesis; software verification; probabilistic verification; quantitative verification for resource-constrained systems; online verification techniques, e.g. those based on machine learning or statistical inference; verification algorithms for agent-based cooperation and negotiation; and applications. The focus will be on developing theoretical foundations, algorithms, implementation techniques and prototype software tools.

The VERIWARE team will be led by Professor Kwiatkowska and will include Dr David Parker, two postdoctoral researchers and the two doctoral students advertised here. The doctoral positions have been nominally assigned to (1) models for ubiquitous computing, to include applications, and (2) verification algorithms for agent-based cooperation and negotiation. However, there is some flexibility in allocating the responsibilities and thus research proposals in any of the above-mentioned topics relevant to VERIWARE are invited.

The VERIWARE team will be members of the OUCL Verification theme. More information about research projects and members of the themes can be found at:

<http://www.comlab.ox.ac.uk/research/verification/>

Selection Criteria: Applicants for these posts must satisfy the usual requirements, see <http://web.comlab.ox.ac.uk/oucl/prospective/dphil/dphil-criteria.pdf>, and should have a good background in theoretical computer science and model checking. Finally, we require good writing, communication, presentation, and organization skills. Skills in one or more of the following areas will count as additional qualification: concurrency theory, automata and

temporal logic, multi-agent systems, game theory, probability theory, quantitative/probabilistic verification, timed/hybrid automata, software verification, machine learning, statistical inference, and programming in C/C++.

Closing date: The closing date for applications is 4th May 2010

If you have any questions about the applications procedure please email Julie@comlab.ox.ac.uk