

School of Computer Science – general information

This information can be used as the basis for proposals that require information on the University and School. Please note that ALL wording for proposals should be tailored appropriately for the call and project to include research group information and specific experience of the host and applicant.

About

The University of Manchester is one of the UK's top research-led universities and can lay claim to 25 Nobel Prize winners amongst its current and former staff and students, including 4 current Nobel laureates. We have a distinguished history in research, innovation and enterprise stretching back over 180 years, with major scientific advances being made at Manchester including Rutherford's work leading to the splitting of the atom and the development of the world's first modern computer.

Research at the University is internationally renowned; in 2014/15 we attracted over £345 million in external research funding including funding from a variety of industrial partners.

The University nearly 6,500 academic and research staff, and invests heavily in estates to provide state-of-the-art buildings and facilities such as the £61 million National Graphene Institute.

Computer science research at The University of Manchester forms a virtuous circle between fundamental computer science research and its use for solutions in application settings. The School undertakes fundamental computer science research; this provides solutions to problems in applications from multi-disciplinary work that in turn provide challenges that stimulate fundamental computer science research. Few universities in the world are able to offer the same breadth of expertise.

Research into computer science fundamentals includes novel computer architectures in the SpiNNaker boards that support simulation of brain activity, competition winning theorem provers (Vampire) and work in description logics and their associated automated reasoners, and work in novel machine learning techniques that ultimately have applications in the large amount of data now available.

Quality

We are committed to becoming one of the world's top 25 research universities by 2020; in 2015 Manchester was ranked 41st globally and 5th in the UK according to the Shanghai Jiao Tong University Academic Ranking of World Universities (ARWU).

In the recent national Research Excellence Framework (REF2014), 94% of the research within the School of Computer Science was described as either of world-leading quality or internationally excellent in terms of originality, significance and rigour. The University of Manchester was assessed as having the best environment in the UK for computer science and informatics research. Since 2009 the School has ranked in the top 10 in Europe by ARWU. The expertise, achievements and services of its staff are well-recognised internationally, with Royal Society Fellows and many prestigious prize and award winners, including CBE and OBE holders Professors Steve Furber, Carole Goble and Chris Taylor.

History

The School of Computer Science at The University of Manchester is one of the longest established schools of Computer Science in the United Kingdom and one of the largest, with a very strong research history. Both the world's first stored-program computer (the 1948 Manchester Baby) and the ground-breaking Atlas computer (the world's most powerful computer at the time; 1963) were

developed at The University of Manchester. Virtual memory, which was first demonstrated here, is an integral feature of today's most widely-shipped operating systems. Building on this history, research in the School brings together an understanding of foundations, technologies and applications.

Collaborations

Computer Science at Manchester boasts many cross-disciplinary collaborations in e-science, systems biology, health informatics, complex systems, and nanotechnology; including the ground-breaking experiments with the two-dimensional material graphene that was discovered in our labs. With 69 academic staff, over 65 researchers and more than a hundred research students, the School attracts many international researchers and maintains strong links with collaborators across the globe.