



UNIVERSITY OF
BIRMINGHAM



Head of School of Computer Science
98928

Role Profile

By virtue of their scholarship the Head of School is first and foremost an inspiring academic leader.

Whilst the breadth of our Schools vary, both in terms of discipline variety and numbers of colleagues employed, the behaviours and capabilities required of Heads of School are common and are characterised by the commitment, drive and collaborative spirit that should underpin all leadership activities at the University of Birmingham. Reporting to the Head of College and a member of the College Executive Board, they are responsible for the delivery of academic, financial and people management of the School and as a senior leader, contributing to the delivery of the College and University strategic plan.

Main responsibilities

- Provide academic and managerial leadership within the School, to help build the capability and capacity to deliver excellence in research, education, influence and resources
- Develop and deliver a School strategic plan, which supports the College and University's strategic framework - be open and receptive to examining and challenging all aspects of the School's operations, and able to drive both continuous and step-change improvements to maximise performance at all levels and to deliver School targets
- Provide leadership and inspiration for the School in terms of direction, new ways of working and to act as a role model for collegiality across the University, aligning school interests with those of the institution
- Review progress of the School and individuals against agreed objectives and targets, identifying action to encourage and support continuous improvement and contribution across teaching, research and administration, addressing concerns with fairness and transparency
- Lead the School, to develop and maintain active multi-disciplinary networks and collaborations, internally and externally, nationally and internationally, helping to enhance the reputation of the School's education and research provision
- Play an active role in the College Board, with collective responsibility for decisions taken by the Board and contribute to wider College leadership
- Work closely with the College Directors of Research & Knowledge Transfer, of Education and of Global Engagement, to develop robust and effective School plans that support the College and University strategy
- Develop and implement a vision and culture (including policies and procedures) that actively promotes equality and values diversity and inclusion, identifying and implementing actions within the school in all processes that support this agenda
- Deliver efficient and effective financial management and use of resources
- Ensure efficient management and operation of undergraduate and postgraduate taught courses
- Ensure compliance with legislation and university policies, including health and safety, in conjunction with the School Operations Manager

Person Specification

The expected profile of appointee is as follows:

- Ability to articulate the value and purpose of education and research across the School's disciplines and to explore and build productive collaborations beyond the school and institution
- Considerable personal integrity and commitment to the development of a collaborative culture
- Ability to motivate staff and build collegiality and excellent working relationships with colleagues across the College and University
- A track record in developing equality and diversity strategies, policies and procedures to promote and improve equality, diversity and inclusion for staff, students and other stakeholders. Articulates the link between the moral and business case for promoting and ensuring equality, diversity and inclusion to achieve organisational priorities.
- Have a sound commercial understanding of how a leading international School operates in a highly competitive global marketplace. A commitment to take forward the School's strategy and possess the know-how critical to be able to identify strengths and weaknesses, harness opportunities, forecast market trends and threats, and implement suitable contingencies
- Ability to engage with the wider West Midlands region as well as national and international stakeholders with an understanding of how to implement and deliver new initiatives
- An exceptional Scholar with academic credibility among peers and evidence of an outstanding and sustained international research, evidenced by a substantial record of international quality and successful grant portfolio
- Evidence of delivering excellence in the design and delivery of teaching, at both undergraduate and postgraduate level and evidence of activities which advance the student learning experience, or which enhance the teaching and learning performance of colleagues
- The ability to lead the school and staff within it through successful organisational change and development
- A PhD in a relevant discipline

Informal Enquiries:	Professor Stephen Jarvis, Pro Vice-Chancellor and Head of College of Engineering and Physical Sciences
Insert contact details here:	S.A.Jarvis@bham.ac.uk
Full/part time:	Full time
Duration of post:	Permanent
Post is open to:	Internal and External Candidates
Grade:	Professorial
Salary:	Competitive for an outstanding candidate

How to apply

To apply, please complete an application and attach your CV to:

<https://bham.taleo.net/careersection/external/jobsearch.ftl?lang=en&portal=101430233>

Please quote job reference 98928 in all enquiries. As part of our senior recruitment process your application may be shared in confidence with two external assessors (these will typically be professors within a related academic field, but external to the University of Birmingham). Therefore your application may need to be sent outside the EEA. Their views may be sought on your suitability for shortlist and they may also be invited to be involved in the interview process. If you have any queries or concerns about this, please contact Emma Stanway (College HR Business Partner) on e.stanway@bham.ac.uk to discuss further.

The School

The School of Computer Science is a vibrant community of scholars and students focussed on the delivery of world-leading research and high-quality teaching. Its research strengths include cyber security, AI and data science, human-centred computing, computational life sciences, robotics and computer vision and theoretical computer science. The synergy between fundamental and applied research has fuelled collaboration with over 80 companies, from local SMEs to major international corporations. Through patents, licences and collaborative projects, and activities have impacted the automotive, robotics, cybersecurity, education, healthcare and manufacturing sectors.

The School lies at the heart of the University's approach to multi- and inter-disciplinary working with engagement with other disciplines including biosciences, engineering, humanities, law, mathematics and medicine. Our membership of The Alan Turing Institute recognizes these areas of expertise and offers significant opportunity for further leadership in the national agenda.

It was one of the first Computer Science departments in the country and has a long history of pioneering courses at undergraduate and postgraduate level, as well as an active PhD programme which includes collaborative scholarship scheme with a number of international partners. Recently we have attracted young researchers from internationally renowned institutions, including Oxford, Carnegie Mellon, Princeton, and Max Planck Institutes and investment into infrastructure and facilities has facilitated the uptake of our research by industry and beneficiaries, and subsequent impact.

In addition to conducting world leading research, the School of Computer Science teaches about 700 undergraduate students and about 600 postgraduate taught students on our campuses in Edgbaston and Dubai. It employs over 55 academic staff and a number of postdoctoral fellows, teaching fellows and PhD students. It is home to both EPSRC and Royal Society fellowship award holders. It has established partnerships with industry, including with PwC, Hewlett Packard, Samsung, Jaguar Land Rover, and other international companies. It has staff who hold joint and honorary appointments with the likes of Google and with universities in Europe, the USA and China.

The College

The College of Engineering and Physical Sciences is tackling some of the biggest challenges facing humankind from climate change and sustainability to staying healthy and tackling disease. Our vibrant community of over 1,100 academic and professional services staff work collaboratively across a range of disciplines and interdisciplinary fields. We have research institutes and centres spanning diverse areas including energy innovation, quantum technology, railways, healthcare technology, robotics and cyber security. Our research spans the full spectrum from discovery to translational research. The College has a critical mass of well over 800 academic staff that is continuing to increase. We have a rapidly expanding research grant portfolio and steady growth in research awards. Our professional services staff provide valuable expertise, working in partnership with academic colleagues to support research activity and help the College to develop its influence regionally, nationally and globally.

The College is home to well over 7,500 students in Birmingham plus hundreds more on our Dubai campus and at our Joint Institute in China. They study a diverse range of undergraduate, postgraduate taught and research programmes. Our education portfolio is also growing with the introduction of online learning and

continuing professional development courses. Academic and professional services colleagues work in partnership to attract high quality students from around the globe and ensure a high quality experience for our students and their wellbeing, whatever location or method of study they choose.

The College is comprised of seven Schools:

School of Chemical Engineering

One of the oldest and largest, our prestigious School of Chemical Engineering has a rich history and continues to make an impact with internationally recognised research into areas including cleaner energy, healthcare innovations and healthier food products. The School has one of the largest concentrations of chemical engineering expertise in the UK. It continually ranks highly in league tables and is 4th in the Guardian 2021. The School attracts top quality students who benefit from using world-class facilities and strong links with key employers for placements and graduate jobs.

School of Chemistry

The School of Chemistry has four Nobel prize laureates among its staff and alumni, and with pioneering research it is tackling many of today's global issues including sustainability and plastics. It is one of the best equipped chemistry departments in the country and will soon have a new base, the Molecular Sciences Building. The School is proud of its student community and ranked top in the Russell Group in the 2021 National Student Survey for overall satisfaction.

School of Computer Science

The School of Computer Science is breaking new ground with its research in the theory and practice of computational systems and their applications. The School's focus is on AI, robotics, theory of computation, cybersecurity and privacy, computational life sciences and human-centered computing. It is also attracting rapidly growing numbers of both undergraduate and postgraduate students to its suite of programmes in Birmingham and on the Dubai campus. This includes the degree apprenticeship programme with PwC and a 'year in computer science' scheme that gives non-computing students the opportunity to study a subject that will enhance their employability. The School has a vibrant student community and active clubs.

School of Engineering

The School of Engineering is made up of three departments: Civil Engineering, Electronic, Electrical and Systems Engineering, and Mechanical Engineering. The School has recently moved into a brand new, state-of-the-art £46M building designed to support academic collaborations and enhance student experience. The School's internationally recognised expertise in rail is at the heart of the building with the Birmingham Centre for Railway Research and Education, the Centre of Excellence in Digital Systems and the UK Railway Research and Innovation Network. Other research areas also include sustainable cities, remote sensing technologies and space weather. The School has an extensive portfolio of programmes designed to equip the modern engineer with the necessary skills. These are delivered in both Birmingham and Dubai.

School of Mathematics

Internationally renowned for its research, the prestigious School of Mathematics has particular strengths in combinatorics, analysis, algebra and optimisation. The School prides itself in having an inclusive community of learners and attracts large numbers of undergraduate and postgraduate students. The School is consistently highly ranked, it is 5th in the Guardian league table 2021. The School also plays an important role in the College's international education. It runs dual degree programmes in China at the Jinan University-University of Birmingham Joint Institute (J-BJI). The J-BJI has more than 800 students taught in English by flying faculty from Birmingham. Those students also have the opportunity to travel to Birmingham on study abroad and summer school programmes.

School of Metallurgy and Materials

The School of Metallurgy and Materials is home to researchers and students in a range of disciplines including metallurgy, materials science and engineering, nuclear engineering and science, and aerospace.

Metallurgical studies at Birmingham date back to 1881 and the School is now considered to be a leader for many areas of metallurgical research. The School has over 100 active research grants. It consistently ranks highly in league tables and has an enthusiastic community of students across its range of undergraduate and postgraduate programmes.

School of Physics and Astronomy

The School of Physics and Astronomy excels in research and teaching. Its academics have been at the forefront of discoveries including the development of radar and the microwave oven, as well as recent detections including the Higgs Boson and gravitational waves. Two former staff were awarded Nobel prizes for Physics in 2016. 90% of the School's research outputs were rated as world-leading or internationally excellent by the Research Excellence Framework (2014). Research areas include particle and nuclear physics, quantum matter, stars and exoplanets. The School is home to the Institute for Gravitational Wave Astronomy. Highly ranked in league tables, the School attracts top quality students to its range of taught and research programmes.

Beyond the School structure, the College has a huge breadth of research activity and outputs. Our computer scientists are driving forwards the University's new Institute for Interdisciplinary Data Science and Artificial Intelligence, a nexus for collaborative research and education. At the Birmingham Energy Institute, we are focused on the global challenge of energy consumption and are creating technology and guiding policy to shape energy solutions. Our robotics experts are working on solutions for decommissioning nuclear waste at the National Centre for Nuclear Robotics, addressing one of Europe's most complex environmental challenges.

We lead the UK Quantum Technology Hub for Sensors and Timing which brings together physics and engineering academics. The Hub is playing a major role in influencing government policy, securing public funding to help translate laboratory science into real-world solutions. The work includes ultra-precise sensors that improve health and safety during excavation, optical clocks to improve navigation and communications, and using revolutionary technology for health applications including research into dementia. The Healthcare Technology Institute has researchers from numerous College disciplines working with others to advance new technologies and treatments. They are tackling antibiotic resistance, pioneering techniques for healing without scarring and finding new ways to make early diagnoses.

The College also has a number of state-of-the-art facilities for research and education. The new Collaborative Teaching Laboratory represents a new approach to flexible, multi-use, multi-disciplinary lab teaching and is used by engineering and science disciplines. The new National Buried Infrastructure Facility is a unique facility for research, education and training. The Birmingham Extreme Robotics lab is Europe's most prominent university lab dedicated to nuclear and other extreme environment applications of advanced robotics and AI.

The University

We have a long and proud history of firsts at the University of Birmingham; we were the first – and are now one of the largest - civic universities in the UK. More recently, we were the first university to establish a fully comprehensive secondary school, and the first Russell Group and Global Top 100 university to open a campus in Dubai. Research England's inaugural Knowledge Exchange Framework (KEF) ranked the University of Birmingham's contribution to the regional economy between August 2016 and July 2019 as first amongst all UK universities for local growth and regeneration. Income generation for the region accounted for 21% of total sector income which totalled over £41m – more than four times that of the next institution.

We are a leading member of the [Russell Group](#) of universities and our heritage is combined with one of the most compelling and ambitious agendas in Higher Education.

With more than 8,000 staff, 38,000 students and 300,000 alumni across the globe, we think, recruit, and compete worldwide. Ranked in the top 100 universities globally and the top 25 in all domestic league tables, the quality of what we do at Birmingham is widely recognised.

As the first civic university, we remain committed to working with a wide range of stakeholders from a variety of backgrounds. Thus, we take equality, diversity and inclusion seriously and recognise that such work will never be complete. Therefore, we are particularly interested in working with those that are committed to helping us improve society and the university in this area. We are highly ambitious and work collaboratively to deliver our agendas.

More information about the University is available [here](#).

Global Outlook

The University has a significant international presence. Birmingham was one of the founding partners of, and remains highly active in, the [Universitas 21 global](#) network of research intensive universities. In China, we have developed a broad range of activities, including a signature collaboration with the Guangzhou Municipal Government, and have well developed research collaborations in many parts of the country; we also have a dedicated China Institute to further these partnerships. Having established ourselves in Dubai, we are about to open a landmark new campus to house our growing staff and student population. As a global university with a civic outlook, we are committed to contributing to UAE society – as a leading provider of education and through our research strengths.

Our decade of partnerships with key Brazilian institutions through our Brazil Forum has helped to advance research into sustainable cities, communicable diseases and smart transportation. In North America, the University has a major collaboration with the University of Illinois at Urbana Champaign underpinned by a flourishing network of faculty-to-faculty relationships. In partnership with Siemens we are combining digital sensor and analytics technologies, artificial intelligence, decentralised energy generation and storage plus renewable energy and concepts that help change users' behaviour, to transform the University's Edgbaston and Dubai campuses into the world's [smartest global campus](#), creating a 'Living Lab' where research, teaching and learning all benefit from access to new data and connectivity. More information about our strategic global engagements and international research focus can be found on our [website](#).

Investing for the future

At Birmingham, we have a clear vision, ambitious leadership, world-leading academic strengths, and a secure financial base. With an annual turnover exceeding £650 million, we use our financial strength to invest in the intellectual and physical future of the University. Our £1 billion estates plan is well underway and our staff, students and wider community are already benefiting from a number of signature buildings, including a best-in-class library, a showpiece sports centre, a major new Teaching and Learning Building, The Exchange city-centre hub, a spectacular School of Engineering, a state-of-the-art student services hub, an extensive addition to the University Business School, a stunning Green Heart parkland area at the centre of our campus, a modern Hotel and Conference Park, a multi-award-winning Collaborative Teaching Laboratory, and a "one of its kind" National Buried Infrastructure Facility. Significant capital investment continues and further flagship developments include the Birmingham Health Innovation Campus, which will open in 2022. A virtual tour of our campus is available [here](#).

Exceptional Research

The University is one of the UK's most successful institutions in terms of attracting research funding. Our research record speaks for itself; the total value of research funding won by the University in 2019/2020 was £220 million, and we are looking to double our research income by 2026. The majority of our research is internationally excellent or world leading and our global impact is apparent in a broad range of areas, from Psychology, History, and Education to Chemical Engineering. We also enjoy robust industrial partnerships. We have strengthened our commitment to tackling the issues of energy and climate change by launching the Birmingham Energy Innovation Centre at Tyseley. Part-funded by the Greater Birmingham

and Solihull Local Enterprise Partnership (GSLEP), the Centre's cutting-edge work in waste, energy and low-carbon vehicles will help to create a greener and cleaner ecosystem for Birmingham and the West Midlands.

Outstanding Students

We have been encouraging bold, independent thinking and providing exceptional academic programmes that stretch and challenge for more than a century. We are proud of our excellent teaching which was recognised in the University's outstanding performance in the Quality Assurance Association's (QAA) Higher Education Review. Having been recognised many times over the years for the quality of our education provision, in *The Graduate Market in 2021* we achieved first place on the list of universities most frequently targeted by top employers seeking to recruit graduates. The *Guardian University Guide 2021* ranked us 11th in the UK for employability while we were placed 85th in the world for employer reputation in the 2021 QS World University Rankings.

We understand that every student is individual with a unique learning style, and have invested in the latest learning facilities and technologies. As a result, we attract students with the finest academic credentials. Year on year, applications for our undergraduate places are growing rapidly and more impressively than they are nationally or for comparable universities. We are committed to delivering a first-class experience for our students in every aspect of their university life.

Sport

Sport is integral to life at Birmingham (we are regularly ranked in the top five in the UK for the quality of student sport) and we are proud to count Olympians and Paralympians amongst our current students and alumni. Our new sports development includes the City of Birmingham's first 50-metre swimming pool – an asset not only for our students and staff but for the wider community. We worked closely with partners regionally and nationally to secure the 2022 Commonwealth Games in Birmingham as well as the 2023 International Blind Sport Federation World Games. As the official partner of the Birmingham 2022 Games, we were delighted to be chosen as the venue for the Hockey and Squash events and that our Student Vale facilities will be used as one of the competitors' villages.

Structure

The University structure comprises five Colleges - [College of Life and Environmental Sciences](#), [College of Medical and Dental Sciences](#), [College of Engineering and Physical Sciences](#), [College of Social Sciences](#), and [College of Arts and Law](#) – each with a distinctive identity and areas of renown. Each Pro-Vice-Chancellor and Head of College is a member of the University Executive Board (UEB).

Equality, Diversity and Inclusion

A diversity of perspectives and lived experiences is key to the exchange of ideas, innovation and debate that is at the heart of our academic mission. The University is committed to a programme of activity to increase its diversity, address under-representation at all levels and remove the structural barriers that can prevent the achievement of individual potential. We strive to create an organisational culture in which issues of equality, diversity and inclusion are central and where understanding these issues is a key competency for all of our staff and students.

We support flexible and hybrid working.

Find out more about our work to promote equality, diversity and inclusion:

<https://intranet.birmingham.ac.uk/equality>

The City of Birmingham

Birmingham has undergone a major transformation in the last decade. A city of historical interest and contemporary vision, it has a rich and diverse community that creates a vibrant and exciting place to live and work.

The city is home to the internationally renowned Birmingham Royal Ballet and one of the world's greatest concert venues: Symphony Hall. The City Museum and Art Gallery houses the world's finest collection of Pre-Raphaelite paintings, alongside other major collections, while the iconic Bullring is one of the largest dedicated shopping facilities in Europe. Sports and recreation are also well served; the city offers international Test cricket, top-flight football, international championship golf and tennis, and top-class rugby. As a multicultural city, Birmingham is also renowned for the breadth of its cuisine and has more Michelin starred restaurants than any other English city outside London.

Birmingham hosts an international airport, and is within an hour's drive of Stratford-upon-Avon and the Cotswolds. The University has its own dedicated railway station which is being upgraded for the 2022 Commonwealth Games while 50 million passengers a year use the newly revamped Birmingham New Street Station, and the city will be a major hub for the high-speed rail network. London is 80 minutes away by shuttle service, with trains every 20 minutes.