



Aston University

Engineering & Applied Science

FURTHER PARTICULARS FOR THE ROLE

Senior Lecturer in Computer Science

Engineering and Applied Science

Reference Number: R120133

Closing date: 6 July 2012

Interview date: To be confirmed

Contents:

Group information	1
Role description	3
Person specification	5
Outline terms and conditions of appointment	6
Further advice , equal opportunities statement and data protection	8

Computer Science

The Computer Science group comprises 17 members of academic staff, with one Professor (Ian Nabney), one Reader (Dan Cornford), two Senior Lecturers (Lucy Bastin and Chris Buckingham), and the remainder lecturers. Prof. Ian Nabney is the Head of Group. The teaching and research activities of the group are supported by the Programming Support Office, administrative staff based in the School Centre and technical support staff in Information Services Aston.

Additional input to, and interactions with, Computer Science teaching and research are provided by staff in other Subject Groups, especially those of Mathematics and Electronic Engineering, for example through interdisciplinary research groups and delivery of modules on joint degree programmes.

Teaching Programmes

The Group is responsible for two single Honours undergraduate degree programmes: Computing Science, and Multimedia Computing. It also runs a major/minor joint degree in Computing for Business (in conjunction with the Business School). All three programmes are proving attractive to well-qualified applicants; the offers for 2012 entry are at BBB for Computing Science and Multimedia Computing, and ABB for Computing for Business. Application numbers have risen this year, and our intake is currently about 130 across the three programmes. The focus of our programmes is on information systems engineering incorporating scientific principles, with an emphasis on design and practical projects. Many of our students proceed to an industrial placement in their third year, and the rate of graduate employment is extremely high. The British Computer Society has given full accreditation (CITP) to all three programmes. In addition, the Computing for Business programme is endorsed by e-skills (the sector skills council for ICT) as an 'Information Technology for Management and Business' degree, which provides students with many opportunities for interaction with industry.

Computer Science modules are also taken by a number of programmes across the School, including Mathematics and Computing, Electronic Engineering, and Electronic Product Design.

The group has signed an agreement with Vidyalkar Institute of Technology in Mumbai, India to take up to 10 students per year from their computing programmes onto the final year of the BSc Computing Science: the first cohort will start in October 2012. We also have a similar agreement with Jinan University (Guangzhou and Zhuhai campuses). We are in discussions with other high-quality institutions to formalise similar agreements. There is also a good collaboration with IIT Ropar (India) which has resulted in undergraduate students carrying out internships at Aston.

The Group runs two MSc degrees: Software Engineering; and IT Project Management. The latter is run jointly with the Business School, and took its first intake in October 2008. We intend to develop our postgraduate programmes further over the next few years.

We have recently established a student-run software enterprise Aston Active Software Engineering that gives students the opportunity to carry out consultancy and software development projects for real clients. Some of these are integrated into our teaching programmes, while others provide paid employment opportunities for our best students.

Research

15 members of the Subject Group's academic staff are active in research and scholarship through some combination of publication, research supervision and involvement with funded projects, including Knowledge Transfer Partnerships. There are two research groups with members from Computer Science: the Computer Science Research Group

(<http://www1.aston.ac.uk/eas/research/groups/csrg/>) and the Non-linearity and Complexity

Research Group (<http://www.aston.ac.uk/ncrg>). The main research areas of each group are as follows:

- ◆ **CSRG:** computational intelligence (agent-based modelling, evolutionary computation, health informatics, automated reasoning and the semantic web, spatial knowledge, natural language processing); software engineering (reliable software engineering, adaptive computing systems, event-based systems); pattern analysis and classification (Bayesian probabilistic modelling, information processing); visual information processing (visual 3D model-building, video analysis); cognitive science (decision making, human-computer interaction). The group has been successful in attracting funding from EPSRC (project grants and CASE studentships), industry and the NHS, BIS/TSB (Knowledge Transfer Partnerships), the EU (Framework 6 and 7) and other schemes. A particular strength is applications in health informatics.
- ◆ **NCRG:** neural networks and pattern processing inference methods; statistical physics and information theory; complexity; wavelets; visualisation; pattern analysis toolkits. Application areas are very broad, but include biomedical information engineering, bioinformatics, error-correcting codes, and public key cryptosystems. The group has a high level of external funding, with more than £2M grants at the current time.

Inter-group links and collaborations are encouraged, so it is possible to be a member of more than one research group.

Accommodation and Facilities

The Group is located in the main building of the University. The computer laboratories (PC, Unix and Mac) are designed predominantly to accommodate students in groups of either 30 or 50 students at a time. A partitionable, 100-seater lab with high-specification audio-visual facilities was installed for the 2004/5 academic session, and the computing hardware was replaced for the 2007/8 session. Some smaller higher-specification labs with restricted access are available for final-year and postgraduate project work, and there are specialist labs for interactive multimedia and computer vision

(<http://www1.aston.ac.uk/about/news/releases/2010/december/interactive-media-laboratory/>)

All equipment is maintained to up-to-date and high-quality specifications following a regular replacement policy. Wireless network access is available throughout the core areas run by the Subject Group. Teaching is carried out in flat rooms or raked lecture theatres as appropriate. All staff have individual offices within the Group's area.

Future Goals

The goal of the Computer Science Subject Group is to become internationally recognised as a leading provider of industrially-relevant teaching and research in Computer Science.

The Group is strengthening its research activities in line with School and University aims. This is being achieved through integration of our activities within the two research groups, combined with a commitment to develop postgraduate programmes in cognate areas, thus facilitating a beneficial synergy between research and teaching. The Group's teaching is mainly of a pragmatic, engineering-oriented nature, within four broad areas: software engineering, computer systems, business-related computing, and computing techniques (AI, graphics, multimedia, etc). We expect this to continue, but aim to develop stronger links with industry, building on the successful placement scheme we currently run, the new MSc in IT Project Management, and our many industrial research collaborations.

Role Description

Outline

At the Senior Lecturer level, we seek a research-active individual to strengthen the leadership, research and teaching of the Computer Science Group.

The successful applicant for the Senior Lectureship will be expected to be active in research, with an established reputation at least at national level. Typically we would expect candidates to present evidence of a developing leadership, preferably including the supervision of research students or fellows, the ability to gain research grants and to work with collaborators both from within and from beyond the university community, in the UK and abroad. While we welcome applications in any discipline within Computer Science, we have a particular interest in active researchers in software engineering or software project management.

Post title

Senior Lecturer in Computer Science

Job Purpose

To take part in the development and delivery of research, teaching and community engagement activities of the School.

Responsibilities

Research

1. To pursue a personal research programme consistent with the School's research priorities that will make a significant impact by leading to an increase in knowledge and understanding of Computer Science and its applications.
2. To publish the outcomes of research in outlets of international standing.
3. To actively seek and secure external research funding as principal investigator and project leader.
4. To supervise and manage research projects.
5. To supervise postgraduate students at Master's and Doctoral levels.
6. To collaborate in research initiatives with colleagues in and beyond the School of Engineering & Applied Science as appropriate.

Teaching

1. To be responsible for setting standards and monitoring delivery and student progress against standards within the area of responsibility.
2. To take part in the design and delivery programmes of study, including identifying opportunities for the strategic development of new courses or areas of activity.
3. To teach undergraduate and postgraduate students and to carry out the associated assessment and examining processes.
4. To provide academic support, supervision and advice to undergraduate and postgraduate students.
5. To promote the use of a range of methods and techniques in teaching, learning and assessment.
6. To contribute to the management of quality, audit and other external assessments in own areas of responsibility.

Community Engagement

1. To be involved in activities to raise the regional and national profile of the School of Engineering & Applied Science and the Computer Science group, particularly with schools and businesses.
2. To forge relationships with key local and international bodies.

Other related activities and functions

1. To carry out specific School roles and functions as may be reasonably required (e.g. Programme Director, Personal Tutor, Admissions Tutor), these being equitably distributed across the academic staff.
2. To advise others on strategic issues such as student recruitment, marketing, staff appointments and student and other performance matters.
3. To take part in one or more of the School Committees. To participate in the work of University Committees as appropriate.
4. To engage in training programmes in the University e.g. through Staff Development which are consistent with the needs and aspirations of the academic and the School.
5. To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

PERSON SPECIFICATION

MOA = Method of assessment

Application Form (AF) Interview (I) Presentation (P)

	ESSENTIAL	MOA
Education/Qualifications	A good degree in a relevant subject.	AF
	A PhD in a relevant discipline e.g. Computer Science or related subject.	AF
Experience	Experience of initiating, conducting and leading independent research, preferably including the successful supervision of research students.	AF / I
	A track record of publications in internationally excellent and leading journals and conferences.	AF / I
	Experience in applying for and obtaining research grants.	AF / I
Aptitudes and Skills	Ability to lecture to undergraduate and postgraduate students in Computer Science with evidence of quality and appropriate innovation.	AF / I
	Developing ability to provide academic leadership, including the mentoring of junior staff.	AF / I
Training and Development	A willingness to undertake further training as appropriate and to adopt new procedures as and when required.	I
Other	Ability to attend the University as and when required for scheduled teaching, relevant meetings and student supervision.	I
	Commitment to observing the University's Equal Opportunities policy at all times.	I

	DESIRABLE	MOA
Education/Qualifications	Postgraduate Certificate in Teaching & Learning in Higher Education, or equivalent qualification.	AF
	Membership of relevant professional body	AF
Experience	A track record of research impact and esteem (such as keynote lectures or international reviewing).	AF / I
Skills/Abilities	Ability to provide tutorial and counselling advice to undergraduate and postgraduate students.	AF / I
	Ability to develop specialist modules, according to research interests.	AF / I

OUTLINE TERMS AND CONDITIONS OF THE APPOINTMENT

Term of appointment: Continuing appointments are offered. Senior Lecturers are appointed to Grade 10 of the Aston University salary scale which ranges from £45,486 to £52,706 per annum.

This appointment is subject to the terms and conditions for Academic staff.

Holiday entitlement: 31 days per annum, in addition to up to 13 days public and University holidays.

Pension: Eligible staff are offered a defined benefit pension with the Universities Superannuation Scheme (USS).

Research start up fund for new academics: Individuals who have not previously held an academic appointment are eligible for a research start-up fund of £10,000 if laboratory based and £5,000 otherwise (pro rata for part time), in accordance with the rules of the University's scheme. This fund must be spent on research activities and must be used within 18 months of starting the academic appointment at Aston University.

Performance related pay: In addition to the basic salary, the University operates a PRP scheme. Awards are determined on an annual basis.

Consultancy: Academic staff (Lecturers, Senior Lecturers, Readers and Professors) are permitted to use up to 50 days per annum for consultancy activities provided that the University is safeguarded against conflicts of interest (including IPR), indemnified against financial risk, fairly reimbursed for the use of any University facilities and provided that the activities undertaken do not detract from the contributions to Aston for which he or she is being employed.

The University's policy paper 'Consulting Policy at Aston', is made available to newly-appointed academic staff during their induction.

Qualifications: Successful candidates will be required to produce evidence of their qualifications upon joining the University.

Teaching qualifications: It is the normal expectation that all teaching staff who are not able to satisfy the requirements of an advanced teaching qualification (such as the University's PG Certificate in Professional Practice (PGCPP)) on appointment should be able to do so within two years of appointment. This may be extended to four years in exceptional circumstances or where staff hold part-time posts.

Relocation: Newly-appointed staff are required to establish their homes within reasonable daily travelling distance to and from the University. The University operates a relocation scheme to assist newly-appointed

staff in meeting this requirement. Full details of the relocation scheme are included with offers of appointment.

Medical examination: It is a condition of appointment that newly-appointed staff receive medical clearance from the University's Health Centre.

Eligibility to work in the UK: Candidates who are not citizens of the United Kingdom, or of another EEA member country, should ensure that they meet the requirements of one of the 5 tiers of the immigration points based system. Candidates should check their eligibility to enter or remain in the UK **in advance of making any job application** using the [points-based calculator](#) on the UK Border & Immigration Agency (UKBA) website. If you do not meet the minimum points requirement, you will not be able to work in the UK and any application for employment would be unsuccessful.

Document checks: As a result of the implementation of sections 15 to 26 of the Immigration, Asylum and Nationality 2006 Act on 29 February 2008, the University requires all prospective and, in some cases, current employees, to provide documentation to verify their eligibility to work in the UK. Further information about these requirements can be found on the UK Border Agency website. www.ind.homeoffice.gov.uk.

Full details of the salary scales, terms and conditions of service and associated policies and procedures are available on the recruitment website.

FURTHER ADVICE

Please contact Professor Ian Nabney for an informal discussion about the post.

Tel: +44 (0)121 204 3645 Email: i.t.nabney@aston.ac.uk

If you would like information on the progress of your application, or advice on any aspect of the appointment process generally, or the terms and conditions of service, please do not hesitate to contact:

Claire Freeman	HR Advisor	+44 (0) 121 204 4571	c.e.freeman@aston.ac.uk
Nadine Ataya	HR Administrator	+44 (0) 121 204 4570	Atayanf1@aston.ac.uk

EQUAL OPPORTUNITIES STATEMENT

Aston University undertakes to promote equality and diversity within the University Community in all aspects of its work. Further, it aims to ensure through its admissions policies for students and its recruitment and selection processes for staff that it encourages applications from all groups represented in the wider community at a local, national and international level. The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against students or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career at Aston. For further details of policies and codes of practice on race, gender, disability, religion and belief, sexual orientation and age see: <http://www.aston.ac.uk/staff/equalops/>

An Equal Opportunities Monitoring Form is included with the application form.

DATA PROTECTION ACT 1998

Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which may be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.

Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes enabling the University to monitor the effectiveness of its Policy, Code of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.