

## Job Pack

Vacancy reference: C/8135J

Vacancy title: Lecturer/Senior Lecturer - Geographic Information in the Integrated  
Environmental Systems Institute

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## Section 1 - Job overview

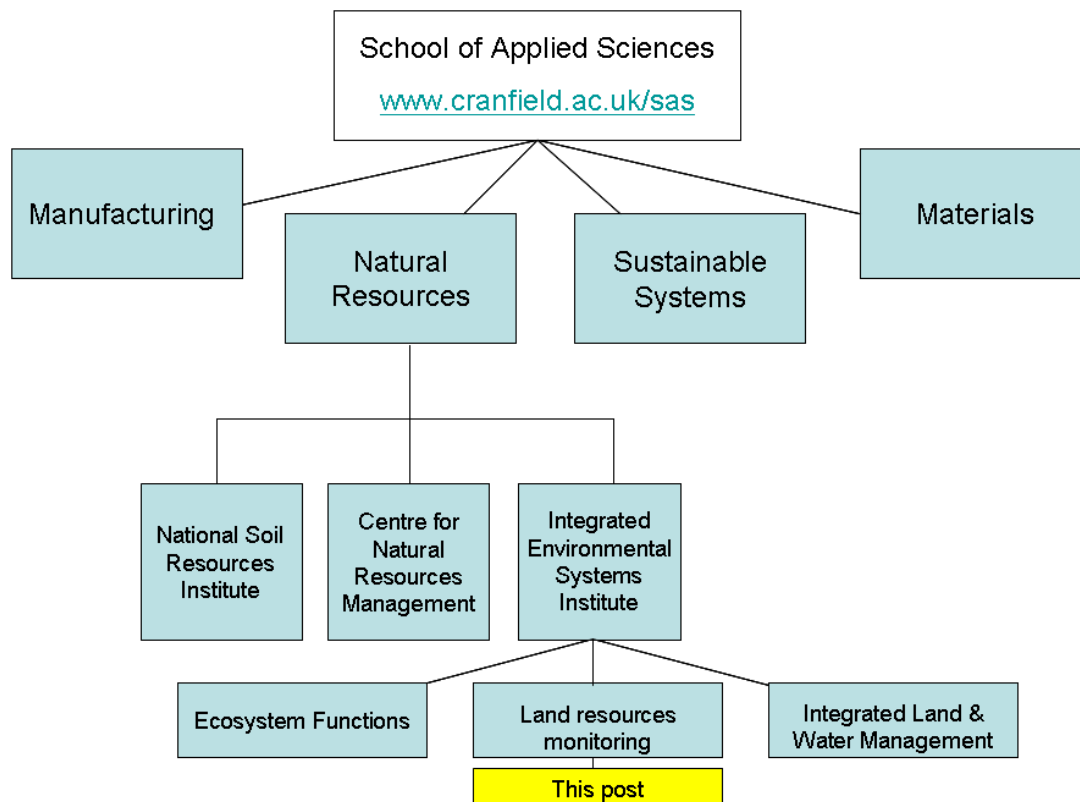
Job title:	Lecturer/Senior Lecturer - Geographic Information in the Integrated Environmental Systems Institute
Vacancy reference:	C/8135J
School/department:	School of Applied Sciences/Natural Resources
Job type:	Full time Permanent
Hours of work:	Non-specified – due to the nature of the work in this senior role, hours of work are not specified and you would be expected to work flexibly from time to time to meet the University's needs. For guidance, the standard full-time working week is 37 hours, normally worked Monday to Friday.
Salary details:	£37,266 to £49,613 per annum
	Salary level 6 – range £37,266 to £41,538 per annum with additional performance related pay up to £50,885 per annum
	Salary level 7 – range £45,735 to £49,613 per annum with additional performance related pay up to £62,016 per annum
How to apply:	A copy of our application form is available on our web site should you wish to complete it online and email it to us.
Responsible to:	Dr Gavin Wood, Senior Research Officer
Start date:	As soon as possible
Closing date for applications:	31 January 2009

## Section 2 - Job details

### Working context

IESI leads research within Natural Resources on the application of biophysical science to integrated land management. It collects and analyses spatial and temporal information and develops and applies models of the physical, chemical and biological processes that drive landscape-scale, river basin and coastal systems, applying these in the context of economic development and climate change. The Land Resources Monitoring Group lead on the application of Geographic Information System (GIS) and remote sensing to land monitoring and modelling. This post also contributes to School MSc programmes, specifically the natural resources, environmental management and water programmes.

### Organisation chart



## Main responsibilities

		% time spent
1.	Identifying, assisting and leading opportunities for developing the application of remote sensing and GIS based research and consulting contracts with subsequent delivery on contracts won.	50%
2.	Development and delivery of remote sensing and GIS based teaching across a range of current and future taught masters programmes within and across Schools.	25%
3.	Supervision of MSc projects.	5%
4.	Supervision of research students and participating in thesis committees.	10%
5.	Publishing papers in peer reviewed journals.	5%
6.	Participate in relevant university working groups and committees.	2%
7.	Personal Development. Initially register for and complete PGCertificate if not already completed.	3%

## **Planning and organising**

The post is multi-faceted and requires effective time management to meet different and varying deadlines within overlying short and long time frames. The work typically requires planning many months ahead of schedule, as well as over 2-3 year periods at a higher, strategic planning level (3 years being the typical length of a research contract/programme or lifespan of a current MSc course before major syllabus revisions are required).

The post has to manage a diverse and complex balance of responsibilities between research, group management and teaching responsibilities, while reacting appropriately to short term demands.

The development of research activities requires longer term strategic planning, medium term responsive grant proposal generation and accurate and timely responses to tender and other immediate opportunities. You will be expected to manage your own resources and coordinate cooperation with colleagues to achieve successful outcomes across this spectrum.

At any time, you will have several live research projects often with conflicting deadlines and will have to plan and manage available resource to optimise overall outcomes.

## **Communicating and influencing**

Promotional: presentations in a variety of contexts (internal and external/academic, industrial and government/national and international) to inform potential sponsors and students and promote the work of the group.

Teaching: as a course lecturer you will be an excellent communicator to students and within the course team.

Research and consulting: “Across the table” presentations to clients, written proposals as PI or Co-I, clear direction of research activity. This requires effective communication with colleagues and influencing of clients to ensure successful research outcomes. Includes management and supervision of research staff and students.

## **Problem solving**

Identifying research ideas and forming these in to research proposals that match Research Council expectations or meet the needs of clients.

Solving research problems (scientific and logistical) in ongoing projects, so that project deliverables are achieved within cost and to time.

Seeking out and exploiting opportunities for improved taught course content and its efficient delivery.

Using state of the art knowledge of GIS and remote sensing techniques to identify and exploit opportunities for improved land monitoring and management.

Finding high quality research students and dealing effectively with problems that arise in your research training.

## **Decision making**

I) You take without reference to others.

Academic

- detailed content of modules and selection of delivery methods and resources
- identification of appropriate project work, e.g. MSc thesis, or group projects
- normal supervisory and assessment tasks

Consulting and Research

- selection of project teams including consortia from outside Cranfield
- assessment and actions relating to project delivery.

II) You refer to your manager / a colleague.

- Go No-Go recommendations for proposals, visits, conferences and workshops
- resource requirements and costings
- disciplinary issues.

## **Guiding framework**

Academic – work within Faculty guidance and rules but otherwise expected to develop and innovate to ensure that course delivery and supervision content and process is relevant, competitive and of best possible quality.

Consulting and Research – works within Department and School guidelines and rules but otherwise expected to take responsibility for client management, project specification, delivery and review.

## **Impact**

Generates research income in excess of £150k per year, including for a minimum of 3 PhD studentships.

Provides strategic input to development of geoinformatics in Department and School.

Delivers research outputs that raise the research esteem of the University, including for research assessment exercises.

Maintains taught courses at the leading edge so that good numbers of high quality students are recruited.

There is considerable potential to develop new research areas and course options relating to, for example, health, water, infrastructure, logistics or pedometrics.

## Facts & figures

- Win and deliver minimum £150K per year of research and consulting
- Convene 3 modules
- Contribute to a further 3 modules
- Supervise 4 MSc students per year
- Supervise 2-4 research students at any one time
- Publish at least 2 papers per year in peer reviewed journals.

## Section 3 – Am I suited to this role?

### Knowledge, skills & experience

- Established research record utilising remote sensing and GIS with the ability to transfer knowledge to a range of applications demonstrated by publications in peer reviewed international journals.
- Skills in proposal development and project management for research and consulting contracts demonstrated by success as a Principal Investigator.
- Teaching and supervisory experience at postgraduate level – including the development of courses and supporting materials
- Active participation in academic/professional remote sensing and GIS forums.
- Advanced technical competence using remote sensing and GIS packages (e.g. ERDAS Imagine and ArcGIS).



## **Section 4 – About Cranfield University**

Positioned between traditional universities and business and industry, Cranfield combines the academic rigour and long term perspective of a university with the commercial and business focus of industry.

Cranfield operates in a global context. Our competitive advantage is based, primarily, upon three characteristics:

- our focus upon sectors, private, public and charitable, rather than traditional academic disciplines: hence all schools embrace staff from a wide range of academic disciplines
- our concern for and delight in the practical outcome of our work
- our willingness to address defence.

We educate students at postgraduate level on both professional development and degree-awarding course; they come either to enhance an already chosen career, or to move to a new one.

95% of our students enter relevant managerial, professional or technical positions in the workplace, or embark on further study, within six months of graduation.

Our research income, measured as a percentage of our turnover, puts us as one of the top five research intensive universities in the UK alongside Oxford, Cambridge, and London's Imperial College and UCL.

These impressive statistics, coupled with our excellent links with industry, and our mission to create viable, practical and environmentally desirable solutions means we are uniquely placed for both students and corporate partners alike.

### **Cranfield's Vision**

To be the university of first choice for students and clients worldwide in teaching and research in selected areas of engineering, applied science and management.

Cranfield University is unique. It is a postgraduate research-intensive university, in which teaching and research are integrated and undertaken in an environment and culture of innovation and applicability. Cranfield's academic and research staff are experts in their own disciplines who seek to develop and apply emerging science and technology and best management practice to useful practical purpose.

### **Cranfield's Mission**

To create and transform world-class science, technology and management into viable, practical, environmentally desirable solutions that enhance economic development and the quality of life. This mission is delivered internationally through teaching, research and consultancy.

## Section 5 – About the School of Applied Sciences / Natural Resources Department

The **School of Applied Sciences** is organised into four departments, each comprising a number of specialist centres or institutes:

### Manufacturing Department

- Decision Engineering Centre
- Fellowship in Manufacturing Management
- Manufacturing Systems Centre

### Materials Department

- Composites Centre
- Precision Engineering Centre
- Microsystems and Nanotechnology Centre
- Surface Science and Engineering Centre
- Welding Engineering Research Centre

### Natural Resources Department

- Centre for Sports Surface Technology
- Integrated Environmental Systems Institute
- Natural Resources Management Centre
- National Soil Resources Institute

### Sustainable Systems Department

- Centre for Automotive Technology
- Centre for Resource Management and Efficiency
- Centre for Water Science
- Energy Technology Centre

Research in the School of Applied Sciences is focused on four research themes centred on and facing nationally important industrial sectors. These research themes interact closely with the four research themes in the School of Engineering to form a wide ranging research base.

Each research theme contributes to Cranfield's strategy of "research informing teaching" by also being responsible for postgraduate teaching, continuing professional development (CPD) and consultancy in its area of specialisation.

## **The Natural Resources Department**

Increasingly, it is understood that better management of natural capital is fundamental for the achievement of local, national and global sustainability agendas and is critical to future social and economic well-being. This is reflected in a rapid extension of the legal framework for environmental management and in the emergence of new technology for enhancing natural resource performance. These developments are driving a growing demand for related research and professional education.

Natural Resources at Cranfield develops and exploits knowledge about natural systems to meet current and future social and economic needs for ecosystem services such as the production of food, fibre and bio-fuels, protection and enhancement of the environment, attenuation of floods and re-charge of aquifers, conservation of biodiversity and carbon storage and management.

## **Section 6 - Working for Cranfield University**

### **Our benefits**

The value and contribution of each of our staff members cannot be over-emphasised. In return we aim to ensure that the benefits of working at Cranfield give everyone a sense of worth and job satisfaction.

This information is intended to highlight and summarise the major benefits of working at Cranfield and should not be construed as a guarantee of current or future benefits.

### **Salaries**

These are reviewed annually and increments within the prescribed scale are normally awarded from the beginning of October each year, subject to the completion of six months service and satisfactory performance.

Cranfield operates a performance-related salary progression scheme, with higher earnings for exceptional performers. One-off reward payments may also be made where relevant and relocation allowances may be given to staff at the discretion of the recruiting school/department.

### **Pension schemes**

The University operates two final salary related superannuation schemes, which include the following benefits:

- a tax free lump sum and index-linked pension on retirement
- lump sum death in service benefit and widow's or widower's pension.

The scheme is contracted out of the State scheme and members are required to contribute between 6% and 6.35% of salary depending on level of post, while the University contributes 14%.

### **Personal development**

At Cranfield we are committed to the on-going development of our people since our continued success rests on the knowledge, skills and capabilities of everyone we employ.

Development opportunities include:

- induction programme to aid a smooth transition into a new role and environment
- mentored probationary periods, providing guidance, support and advice from experienced members
- professional development as appropriate for employees at all stages of their careers
- Performance Development Review Scheme empowering individuals to be responsible for establishing targets, managing workloads and planning personal development, in conjunction with line management support
- access to Cranfield's in-house suite of learning programmes for employees
- the opportunity to gain a Postgraduate Certificate in Teaching, Learning & Assessment in Higher Education (academic and teaching roles) which, on achievement, entitles individuals to join the Higher Education Academy (HEA) register for registered practitioners, the professional organisation concerned with teaching in Higher Education
- management leadership programmes
- sabbatical leave is available at the discretion of the department/school to support academic career development
- one professional membership fee paid for by Cranfield each year if relevant to the role.

### **Wellbeing at work**

A feeling of wellbeing at work comes from a number of sources – your particular job; your relationships with other people; recognition of your achievements; progress in your career; your work-life balance, and your physical and mental health.

Just some of the provisions the university has put in place to help with your general wellbeing are:

- a diversity policy aimed at ensuring dignity at work for all
- 26 or 31 days' leave (depending on career path); normally three to five closure days are reserved for the Christmas closure period
- additional holiday leave for long service – one day after three years and a further day after five years
- a counselling and information service for you and your family
- private medical insurance – the university operates a number of schemes from well-known private medical insurance providers, offering discounted subscriptions to employees
- an Occupational Health Service which promotes health at work
- on-site gym and fitness centre, including fitness classes, squash and tennis courts (for which a small annual fee applies) plus an outdoor swimming pool and nine-hole golf course on the Shrivenham campus
- an on-site dentist, chiropractor, physio and medical centre on the Cranfield campus
- on-site chapel and mosque/prayer room
- special-interest clubs and societies.

### **Family friendly benefits**

Family life is often demanding and getting the right work-life balance can be a challenge. Several schemes and benefits are offered by Cranfield to help employees achieve this balance.

These include:

- enhanced maternity/paternity and adoption schemes
- flexible working scheme so that staff with caring responsibilities can balance their personal and professional lives
- discounts on childcare costs via the Busy Bees voucher scheme
- on-site or local nursery provision
- compassionate leave in cases of bereavement or severe illness in the immediate family
- school holiday clubs/childcare provision.

### **Working environment**

Cranfield is pleased to be able to offer its employees a wide range of facilities/services which help to provide a stimulating working environment.

- Diverse international community
- Stimulating, knowledge-based environment
- On-site restaurants/refreshment facilities
- Green, open spaces, with outdoors seating
- Environmentally friendly policies
- Free car parking
- Car share scheme (operational on the Cranfield campus)
- Personal accident insurance/travel and medical insurance/illness and life insurance while on university business.

### **Diversity at Cranfield University**

Cranfield University is a diverse organisation which values difference and its people as individuals – in our case as employees, students and clients.

Diversity expresses itself in many ways – age, gender, race, culture, physical and mental ability, personality, experiences, approaches to work – and together we work to maximise everyone's potential by harnessing these differences and creating an environment in which we all feel valued, where our talents are fully utilised and organisational goals are achieved.

At Cranfield the management of diversity goes far beyond simply that which is expected by law. For us, it offers an opportunity for the university to attract people from all walks of life and develop our staff and student base to meet our strategic aims.

## **Section 7 – How do I apply for this role?**

### **Before you make a start**

We strongly advise that you carefully read all available information for this job before you start completing the form. This job pack includes a full job description and a person specification (where necessary), which details the skills, qualifications and experience required for this role.

The person specification is split into two sections; essential and desirable. You should ensure that you meet all of the essential criteria for the job and that how you meet these criteria is communicated fully in your application. The desirable section contains a list of skills, qualifications and experience which is beneficial for you to have.

All short-listing decisions will be based initially on essential criteria, with desirable criteria being used to further select or deselect candidates as appropriate. We interview those candidates who are the closest match to the identified criteria.

Please ensure that you have paid the correct postage to avoid the possibility of delay in your application reaching us.

You may send a Curriculum Vitae in addition to your application form. We would appreciate it if you do not include any personal details as this would contravene Cranfield's Code of Practice on Valuing Diversity. These details are covered in Part 2 of the application form.

### **Can I submit a late application?**

The closing date for the job is on both the advert and within the job overview section. Please ensure that your application reaches us by 5pm on the specified date, as late applications will not normally be accepted.

### **Will my application be acknowledged?**

Due to the high volume of applications received by the University, we are unable to acknowledge receipt of individual job applications.

### **Vacancy reference number**

It is important that the vacancy reference number is quoted on all correspondence. This is the code used in the advert. It is also printed on the front page of this document.

### **Can I claim travelling expenses?**

In the event you are called for interview, travelling expenses will be refunded at the equivalent of second class rail fare, or if a private car is used, an allowance of 20p per mile will be paid.

**Will my referees be contacted?**

Yes, normally references are taken up in readiness for the interview stage although you may instruct us not to take up certain references at that point and this should be made clear on your application.

**Will I need a medical?**

All job offers are made subject to you completing a pre-employment health questionnaire and clearance being given by our Occupational Health Adviser.

You may be required to attend an occupational health assessment or to supply further medical information from your GP/consultant. This is to ensure that any adjustments needed are fully considered prior to your employment. In the majority of cases further medical information is not required.

**How can I get in touch?**

Should you need any help or advice in completing the application form or for any other matter, please contact 01234 750111 and ask for the Human Resources Department. Alternatively, the advert might contain details of someone you can contact for an informal discussion about the job.

Please return the completed application form to:  
Human Resources and Development Department  
Cranfield University  
Cranfield  
Bedfordshire  
MK43 0AL

Alternatively you can email the application form to: [hr@cranfield.ac.uk](mailto:hr@cranfield.ac.uk)

Please note: if you apply via email, you will be required to review the form and sign the application form as part of the interview process.