

Ref: EPS-01139

**- PARTICULARS OF APPOINTMENT -**

**THE UNIVERSITY OF MANCHESTER**

**FACULTY OF ENGINEERING AND PHYSICAL SCIENCES**

**SCHOOL OF MECHANICAL, AEROSPACE AND CIVIL ENGINEERING**

Chair, Reader, Senior Lecturer or Lecturer in Geotechnical Engineering

- 1 The University invites applications for one of the above posts, available with immediate effect.
- 2 Salary will be in the professorial range (from £59,897 per annum) for the chair post and £33,230 to £56,467 per annum for the reader/senior lecturer/lecturer post, according to relevant experience.
- 3 Informal enquiries may be made to Professor Peter Stansby, tel: 0161 306 4598; email: [p.k.stansby@manchester.ac.uk](mailto:p.k.stansby@manchester.ac.uk).
- 4 Applications should be made on line. If you are unable to apply on line please request an application form by emailing [HRServices@manchester.ac.uk](mailto:HRServices@manchester.ac.uk), quoting the reference number or by calling 0161 275 4499 (HR team recruitment line number).
- 5 The University of Manchester values a diverse workforce and welcomes applications from all sections of the community.

**Job Title:** Professor of Geotechnical Engineering. However, an appointment may be made at the level of reader or senior lecturer or lecturer.

**Salary:** Chair currently £59,897 to £65,436 p.a.  
Reader currently £47,314 to £56,467 p.a.  
Senior Lecturer currently £47,314 to £56,467 p.a.  
Lecturer currently £33,230 to £45,941 p.a.

**Probation period:** 4 years if an appointment is made at lecturer level

**Organisation Unit:** School of Mechanical, Aerospace and Civil Engineering

**Reports to:** Prof Yong Wang (Head of Structures, Building & Geotechnics Group)

## **BACKGROUND**

### **School of Mechanical, Aerospace and Civil Engineering:**

The School of Mechanical, Aerospace and Civil Engineering (MACE) has 80 academic staff, a research student population of 220, 600 taught masters students and just over 1000 undergraduate students. Core undergraduate programmes are delivered in Mechanical, Aerospace and Civil Engineering. In addition there are eight popular taught Masters.

The strength of the research in Mechanical, Aerospace and Manufacturing Engineering in MACE is reflected by a rank of 18 in the QS World University Rankings and in Civil and Structural Engineering by a rank of 27.

The School wishes to expand research and teaching in geotechnical engineering which may include embankment stability, offshore foundations, piling, groundwater flow, pollution transport, contaminated land and waste disposal, including nuclear waste. Expertise may be in experimental methods, computational modelling and/or systems modelling. There is access to massively parallel computing through in-house processing with 950 cores, as well as national and European facilities.

Research in the School is centred around five main research groups comprising: Energy, Environment and Climate Change; Nuclear Engineering; Structures, Dynamics and Extreme Loading; Aerospace; Manufacturing and Management. Expert Groups of specialist focused activity of particular relevance to this post include Marine Energy, Coastal Engineering, CFD, Turbulence Modelling, and SPH.

There are also School, Faculty and University Research Centres and Institutes. The Modelling and Simulation Centre, part funded by EDF, and the Tyndall Centre for Climate Change Research with special interests in energy and carbon emissions are of particular relevance to this post. In addition there are the Dalton Nuclear Institute, the University of Manchester Aerospace Research Institute, the Laser Processing Research Centre, the Centre for Nuclear Engineering Technology, the Nuclear Advanced Manufacturing Research Centre, and the Research Centre for Radwaste Disposal and Decommissioning.

In other areas, fundamental and applied research is carried out within the School in; extreme loading of structures (fire, impact and explosion), dynamics, engineering design, nuclear engineering (graphite technology, decommission and fuels), climate change (energy, carbon emissions), coastal engineering (flooding and morphodynamics), aerodynamics, geotechnics, manufacturing and materials, built environment and engineering project management. The School has extensive experimental laboratories in solid mechanics (structures and materials), dynamics (including aeroelasticity), fluids (wave and current flumes and wind tunnels), thermodynamics (including engine test cells) and manufacturing (including laser processing). There are strong contacts with industry.

## **Responsibilities and Requirements of Chair Post**

### **Key responsibilities:**

- Leadership of the geotechnical engineering discipline within the School.
- Leading research in one or more specialist areas in water engineering.
- Collaboration within the Faculty generally.
- Obtaining research funding from research councils, European Commission, industry and other sources.
- Developing and delivering world leading research in at least one area of specialism.
- Publishing in leading journals and presenting at international conferences
- Performing teaching duties (including assessment) within the University on postgraduate and undergraduate courses.
- Developing and contributing to CPD courses.
- Attendance at relevant research and teaching committees within the School and the University.

### **Essential knowledge, skills and experience:**

- Educated to PhD level, or equivalent, in civil engineering or a related discipline.
- Excellent track record in journal publications.
- Previous employment in a senior academic post or senior position in industry.
- Capability for developing and leading new research areas, establishing links with industry and other academic researchers, generating funding streams from research councils, European Commission and industry.
- Good communication skills and an ability to foster interdisciplinary collaboration.
- Good management and leadership skills, including the management of large projects.
- Ability to lecture to large classes and supervise group and individual projects at Masters and undergraduate level.
- Fellowship of a professional institution.

## **Responsibilities and Requirements of Reader Post**

### **Key responsibilities:**

- Leading research in one or more specialist areas in water engineering.
- Collaboration within the Faculty generally.
- Obtaining research funding from research councils, European Commission, industry and other sources.
- Developing and delivering world leading research in at least one area of specialism.
- Publishing in leading journals and presenting at international conferences.
- Performing teaching duties (including assessment) within the University on postgraduate and undergraduate courses.
- Developing and contributing to CPD courses.
- Attendance at relevant research and teaching committees within the School and the University.

### **Essential knowledge, skills and experience:**

- Educated to PhD level or equivalent in civil engineering or a related discipline.
- Excellent track record in journal publications.
- Capability for developing and leading new research areas, establishing links with industry and other academic researchers, generating funding streams from research councils, European Commission and industry.
- Good communication skills and an ability to foster interdisciplinary collaboration.
- Good management and leadership skills, including the management of large projects.

- Ability to lecture to large classes and supervise group and individual projects at Masters and undergraduate level.
- Fellowship of a professional institution.

### **Responsibilities and Requirements of Senior Lecturer Post**

#### **Key responsibilities:**

Overall purpose of the job is to develop research and teaching in water engineering.

- Obtaining research funding from research councils, European Commission, industry and other sources.
- Developing and delivering world leading research, including supervision of research students
- Publishing in leading journals and presenting at international conferences
- Performing teaching duties (including assessment) within the University on postgraduate and undergraduate courses
- Developing and contributing to CPD courses.
- Attendance at relevant research and teaching committees within the School and the University.

#### **Essential knowledge, skills and experience:**

- Educated to PhD level or equivalent.
- Good track record in journal publications.
- Capability for developing and leading research, establishing links with industry and other academic researchers, generating funding streams from research councils, European Commission and industry.
- Good communication skills and an ability to foster interdisciplinary collaboration.
- Good management and leadership skills, including the management of projects.
- Ability to lecture to large classes and supervise group and individual projects at Masters and undergraduate level.
- Membership, or intention to become a member, of an appropriate engineering institution (IMechE and/or ICE).

### **Responsibilities and Requirements of Lecturer Post**

#### **Key responsibilities:**

Overall purpose of the job is to develop research and teaching in water engineering.

- Obtaining research funding from research councils, European Commission, industry and other sources.
- Developing and delivering internationally excellent research.
- Supervision of research students.
- Publishing in leading journals and presenting at international conferences
- Performing teaching duties (including assessment) within the University on postgraduate and undergraduate courses.
- Developing and contributing to CPD courses.
- Attendance at relevant research and teaching committees within the School and the University.

#### **Essential knowledge, skills and experience:**

- Educated to PhD level or equivalent.
- Good or developing track record in journal publications.

- Capability for developing or leading research, establishing links with industry and other academic researchers, generating funding streams from research councils, European Commission and industry.
- Good communication skills and an ability to foster interdisciplinary collaboration.
- Good management and teamwork skills.
- Ability to lecture to large classes and supervise group and individual projects at Masters and undergraduate level.
- Membership, or intention to become a member, of an appropriate engineering institution (IMechE and/or ICE).