

THE SIR KIRBY LAING PROFESSORSHIP OF CIVIL ENGINEERING

DEPARTMENT OF ENGINEERING

1 The Professorship

Background

The University is seeking to appoint a Professor with expertise in Structural Engineering or Structural Design to develop and lead the work of the world-renowned Structures Group within the Civil Engineering Division of the Department of Engineering.

Selection Criteria

Candidates will be considered for the Professorship on the basis of the following selection criteria, which they should address in their application.

- An outstanding research record of international stature in some aspect of Structural Engineering or Structural Design.
- The vision, experience and enthusiasm to lead the Structures Research Group, further developing its leading research presence.
- An established record in attracting research grant support.
- The ability to further the academic planning and strategic development of Structural and Civil Engineering in the Engineering Department and the University.
- The ability to manage and interact effectively with staff and students at all levels.
- A commitment to the recruitment, training and mentoring of the next generation of researchers, including undergraduates, research students, and postdoctoral research fellows

2 The Department of Engineering

The Department of Engineering in the University of Cambridge is a vibrant and leading international centre for research. The Department spans a wide range of engineering disciplines and, within this one department, academic staff can easily work collaboratively to address the world's most pressing challenges in Engineering.

The Head of the Department is Professor David Cardwell. The academic staff of the Department consists of: 57 Professors, 25 Readers and 67 Senior Lecturers and Lecturers as well as 332 other research staff. We have 76 Academic-Related staff (Design Engineers, Administrators, Computer Officers, Librarians etc.) and 221 technical and administrative support staff. There are nearly 1000 graduate students, most undertaking research for the PhD degree and over 1200 undergraduates studying for the MEng degree.

The Department has six academic Divisions:
Division A: Energy, fluid mechanics and turbomachinery,
Division B: Electrical engineering
Division C: Mechanics, materials and design
Division D: Civil engineering
Division E: Manufacturing and management
Division F: Information engineering

The new Professor will join Division D: Civil engineering, which has assigned to it 26 University Teaching Officers, 38 Research Staff, 8 Academic-Related staff, 33 Assistant and Technical Staff, and 176 Postgraduate Students. The Head of the Division is currently Simon Guest.

Structures Research Group

The Structures Group within Division D has an outstanding international reputation built on strong historical roots.

The research of the Structures Group covers a wide range of applications, from civil infrastructure to aerospace and to biological structures. Research projects address problems of a fundamental nature, with the aim of understanding the key effects and the parameters that control them, often through a combination of experimental observations, analysis and computer simulation. Examples of ongoing work include research on:

- Masonry structures
- FRP strengthening of concrete
- Glass and façade technology
- Rigidity theory & structural design tools
- Morphing structures
- Biological structures
- Computational mechanics

More information about the Structures Research Group will be found at <http://www-structures.eng.cam.ac.uk/>

The University is currently building a new Civil Engineering Building on the West Cambridge site, which will house almost all of the activities of the Structures Group. It is intended that over the medium timescale the whole of the Department of Engineering will also move to the West Cambridge site, where Division B (Electrical Engineering) and some facilities for Divisions A and D are already present. Other, cognate, Departments already located on the site or about to move there include the Departments of Physics (Cavendish Laboratory), Materials Science and Metallurgy, Chemical Engineering and Biotechnology, and the Computer Laboratory.

Collaborations within and across Divisions of the Department of Engineering are encouraged, which gives the Department great flexibility in responding to new initiatives.

Strategic Themes

Complementary to the 'vertical' Divisional structure, the Engineering Department has identified 'horizontal' strategic themes to draw together its research strengths in individual disciplines to address major challenges.

21st century engineers is the top-level strategic mission for the Department of Engineering - inspiring future generations of engineers, equipping them with the best integrated engineering education, and engaging them at the leading-edge of engineering thinking, so that they can change the world.

Energy, Transport and Urban Infrastructure

Creating sustainable integrated solutions for the provision of energy, transport, information, buildings, water and waste treatment in the context of the urban environment.

Manufacturing, Design and Materials

Transforming our engineered world by understanding the whole process from the fundamentals of understanding materials, through design, to manufacturing, and including service and reuse.

Bioengineering

Applying the engineering approach to understanding biological systems and supporting innovation in healthcare, creating new knowledge, solutions for biological and medical applications, and biologically-inspired solutions elsewhere in engineering.

Complex, Resilient and Intelligent Systems

Developing modelling, simulation and analytical methods for understanding large complex systems and ensuring their resilience through new approaches to optimisation, decision-making and control and human-like intelligence.

More information on the Department and its research and teaching can be found at www.eng.cam.ac.uk

3 Standard Duties

Teaching and research

The Professor will be required to deliver lectures and give instruction in Structural Engineering, and in particular to perform the following duties:

- (i) to undertake original work and the general supervision of research and advanced work in Structural Engineering and the Department generally, and to assist students in their studies by supervision or informal instruction.

- (ii) to give at least 16 lectures or classes (or equivalent teaching) per academic year.

Examining

The Professor will be required to undertake such university examining as may be required by the relevant Faculty Board or comparable body.

Supervision

The Professor will be required to act as the supervisor of graduate students as and when requested.

Administration

Administrative duties are shared equitably among the teaching members of the Faculty. The Professors are expected to play significant roles from time to time on the Faculty Board and Faculty Committees dealing with such matters as academic and other appointments, admission of graduate students, research and teaching assessments, the libraries and computing arrangements. They are also encouraged to accept appointment to University Committees.

It is possible that the Professor will be asked to act as Head of Division at some point in the future.

4 The Colleges

The University, the Faculties and Departments, and the Colleges are linked in a complicated historical relationship that is mutually beneficial but not simple. Students (both graduate and undergraduate) are admitted by one of the 31 Colleges, although in the case of graduate students the Faculties and Departments determine admissions before the Colleges are involved. Almost all undergraduates, and many graduate students, live in a College. The teaching of undergraduate students is shared between the Colleges and the Faculties and Departments, with the Colleges arranging small group teaching ("supervision") and the Departments providing lecturing, laboratory classes, and advanced supervisions. Most academic staff will also be invited to join a College as a teaching or professorial fellow. College teaching is remunerated separately from the University teaching, and appointment to a College is a separate matter from a University appointment. Membership of a College adds an important social and intellectual dimension for many of the academic staff. The Head of Department or senior colleagues can give more advice.

5 Procedure for Appointment

The appointment will be made by a Board of Electors, chaired by the Vice-Chancellor or his Deputy, with a membership which includes members of the Department, members of cognate Departments and external experts.

All applications will be acknowledged. The Board of Electors will decide how they wish to proceed towards making an election, which may include interviews and/or presentations. Short-listed candidates may be invited to visit the Department to give a seminar on their work and meet prospective colleagues in the course of the process.

Candidates will be informed of the progress of their applications as agreed by the Electors.

It is anticipated that the successful candidate will take up the appointment on 1 October 2017 or as soon as possible thereafter.

6 Enquiries and Applications

Informal enquiries about this Professorship may be directed to Dr Simon Guest, Head of Civil Engineering (email: sdg@eng.cam.ac.uk, telephone: +44 (0)1223 332708).

Further information on the University is available at the following address:
www.cam.ac.uk.

Applications, consisting of a letter of application together with a statement of current and future research plans, a curriculum vitae and a publications list, along with details of three referees should be made online no later than **24 October 2016**.

If you are unable to apply online, please contact the Human Resources Division, University Offices, The Old Schools, Cambridge, CB2 1TT (email ibise@admin.cam.ac.uk).

GENERAL INFORMATION

All appointments to University Offices are subject to the Statutes and Ordinances of the University.

A Salary

Salary on appointment will be determined by the Vice-Chancellor at the appropriate point on the University's salary spine for grade 12, taking account of the criteria for the respective contribution band. Professorial salaries are reviewed periodically, on the basis of research, teaching and general contribution, by the Vice-Chancellor with the assistance of a small Advisory Committee.

There is a normal sabbatical entitlement of one term in seven on full pay, subject to the University regulations.

B Headship of the Department

Should a Professor be appointed to the Headship of a Department, a pensionable payment in addition to salary is made.

C Recruitment Incentive

The University has a scheme whereby a single recruitment incentive payment may be made on appointment at the Vice-Chancellor's discretion.

D Removal Expenses

If the person appointed is not resident in Cambridge, a contribution from University funds towards expenditure incurred in removal to Cambridge to take up a University office will be made.

E Consultancy Work

The University's policy on consultancy work is that consultancy arrangements must be entered into privately between the employee and the organisation concerned. The consultancy work must not interfere with the duties required of the officer under the officer's contract of employment with the University. Consultancy work is not covered by the University's insurances, even when the University has knowledge that such work is being done. The University must not be regarded as being directly or indirectly involved in any consultancy arrangement through the use of University letterheads, advice given or work done in the individual's capacity as an employee of the University. Individuals undertaking private or consultancy work are advised to take out personal insurance.

Alternatively, professional indemnity cover may be obtained by channelling private work through the University company Cambridge Enterprise Ltd. Anyone wishing to do so should, in the first instance, contact Cambridge Enterprise at www.enterprise.cam.ac.uk.

F Professorial Fellowships

The great majority of Professors at Cambridge hold a professorial fellowship of a College. Although election to a fellowship is a matter for an individual College, the University takes active steps to draw to the attention of Heads of House the names of those Professors eligible for election.

In seeking the views of referees, their permission will be sought for the release of their comments on the successful candidate if it were to be requested by the professorial fellowship electors of a College.

G Health screening on appointment to University Office and in the case of University Officers undertaking a change of duties

Offers of appointment made to prospective University officers whose work will fall within certain categories are conditional on the completion of a medical questionnaire and, if necessary, on a satisfactory health check by the Occupational Health Service.

Only the person elected will be asked to complete the questionnaire at the time of election.

H Family friendly policies and benefits

The University has a range of family friendly policies to aid employee's work-life balance including maternity, paternity and parental leave, flexible working and career break schemes. In addition, childcare vouchers, access to two nurseries and a holiday play scheme are available through the Childcare Office to help support University employees with childcare responsibilities. Further information can be found at:

<http://www.admin.cam.ac.uk/offices/hr/staff/benefits/family.html>

I Eligibility to work and reside in the UK

UK immigration procedures stipulate that an employer may not consider the appointment of any person unless they have seen evidence of their immigration status. Accordingly, shortlisted candidates, whatever their nationality, will be asked to provide such evidence at an appropriate stage in the recruitment procedure.

J Equal Opportunities Information

The University of Cambridge appoints solely on merit. No applicant for an appointment in the University, or member of staff once appointed, will be treated less favourably than another on the grounds of sex (including gender reassignment), marital or parental status, race, ethnic or national origin, colour, disability (including HIV status), sexual orientation, religion, age or socio-economic factors.

K Information if you have a Disability

The University welcomes applications from individuals with disabilities. Our recruitment and selection procedures follow best practice and comply with disability legislation.

The University is committed to ensuring that applicants with disabilities receive fair treatment throughout the recruitment process. Adjustments will be made, wherever reasonable to do so, to enable applicants to compete to the best of their ability and, if successful, to assist them during their employment. We encourage applicants to declare their disabilities in order that any special arrangements, particularly for the selection process, can be accommodated. Applicants or employees can declare a disability at any time.

Applicants wishing to discuss with or inform the University of any special arrangements connected with their disability can, at any point in the recruitment process, contact, Gosia Wloszycka, who is responsible for the administration of the recruitment process for this position, by email on mw425@admin.cam.ac.uk.