



Job Description and Person Specification

Post	Professor of Water Systems Engineering
College	College of Engineering, Mathematics, and Physical Sciences
Reporting to	Head of relevant department
Responsible for	None

The above full-time permanent post is available from 1st January 2019 in the College of Engineering, Mathematics, and Physical Sciences.

Summary of post

Water systems engineering at Exeter is currently undergoing an exciting period of change and development with the opportunity to now recruit an outstanding professor in the Department of Engineering at the College of Engineering, Mathematics and Physical Sciences. The post is intended to provide leadership in research and education, and the holder will be an innovative researcher with a strong and current record of research funding and international quality publications. The post holder will also have proven ability to deliver high quality teaching at undergraduate and postgraduate levels.

The position will be based within the Centre for Water Systems (CWS), led by Professor David Butler FEng (www.exeter.ac.uk/cws). CWS is an international centre of excellence undertaking research, consultancy, education and training in all major aspects of urban water management and hydroinformatics. The Centre currently consists of 10 academics, 20 postdoctoral fellows, and 50 PhD students. The group is one of the largest of its kind and is an international leader in the field. It has wide-ranging national and international academic and industry partners. While the Centre researches challenges across the full water cycle (i.e. from 'cloud to coast'), its particular focus is on water-related challenges in the urban environment across different spatial and temporal scales. CWS currently holds research grants of about £7m from EPSRC, NERC, EU, the Royal Society, the Royal Academy of Engineering, British Council, Innovate UK and industry, and has strong links with the water companies, consultants, government and local authorities. The Centre runs an MSc in Water Engineering and the WISE (Water Informatics Science and Engineering) EPSRC Centre for Doctoral Training. The Centre is currently bidding for a series of prestigious grants with key partners and collaborators, and will host the 2019 Computing and Control in the Water Industry Conference (CCWI19) in Exeter.

The University of Exeter seeks to consolidate its position as an international leader for global change research and application, and as part of that the Centre for Water Systems is focusing on the following strategic objectives: to deliver excellence in fundamental research, to drive translation of research into practical outcomes, to further develop our significant industry engagement enabling exploitation of IP, to build long-term international partnerships, to actively support strategic regional and university initiatives, and to develop cross-College educational opportunities at all levels.

To help us achieve these objectives we seek to appoint an individual who has an interdisciplinary outlook and who will build upon our strengths by bringing expertise in complementary fields such as: the circular economy, environmental water quality management, global challenges and solutions, hydroinformatics, intelligent management of water systems (digitalisation, WATER 4.0), process engineering, urban water infrastructure, water-energy-food nexus.

The University of Exeter provides an excellent environment for interdisciplinary research. The post-holder is expected to develop strong working collaborations with the GW4 Water Security

Alliance (www.gw4water.com), the Global Systems Institute (www.exeter.ac.uk/gsi), the Environment and Sustainability Institute (www.exeter.ac.uk/esi), our new Institute for Data Science & Artificial Intelligence, and the Met Office.

For informal enquiries, please contact Professor David Butler, Director Centre for Water Systems (tel: 01392 724064, email: d.butler@exeter.ac.uk).

Person Specification for the Post

1. Be a leading internationally-renowned authority in water systems engineering or related field;
2. Demonstrate clear evidence of world leading and international excellence in published research;
3. Have a strong track record in attracting research and/or scholarship funding;
4. Possess a thorough understanding of institutional management systems and the wider higher education environment, including equal opportunities issues;
5. Demonstrate a proven ability to deliver high quality teaching at undergraduate and postgraduate levels, including the development of new modules and participation in team-taught modules as appropriate;
6. Have a proven ability to attract and supervise PhD and other research students and contribute to general research activity;
7. Show a commitment to demonstrating the wider impact of research.

Main duties

Research

1. Support the development and implementation of the College research strategy.
2. Lead and co-ordinate relevant research activity at Exeter.
3. Manage research and collaborative partnerships with other educational institutions and other bodies.
4. Lead bids for research, consultancy and other additional funds.
5. Write publications of the appropriate standard or disseminate research findings using media appropriate to the discipline.
6. Lead and develop internal and external networks to foster collaboration and share information and ideas and to promote the subject and the Institution.
7. Contribute to the enhancement of research quality and thinking in the field by being involved in quality assurance and other external decision making bodies.
8. Lead the development of new and creative approaches in responding to research challenges.
9. Plan and implement research projects and monitor progress to ensure the achievement of financial and research objectives.

Communication, Administration and Management

1. Be routinely involved in complex and important negotiations internally and with external bodies, particularly in relation to research, research funding, impact of research and consultancy.
2. Participate in Institutional decision making and governance.
3. Participate in internal and external networks in relation to research and research funding.
4. Promote and market the work of the College in the subject area both nationally and internationally.
5. Exercise academic leadership for all subject area activities - teaching and/or research, as appropriate.
6. Act as line manager for matters relating to the employment of staff and ensuring the work is allocated fairly, according to skills and capacity.
7. Appraise and advise staff on personal and career development plans and mentor research activity within the discipline/College.
8. Develop and communicate a clear vision of the Centre's strategic direction.
9. Promote a collegiate approach and develop team spirit and team coherence.

10. Foster interdisciplinary team working.
11. Determine the allocation of resources within own area of responsibility.
12. Take overall responsibility for the organisation and deployment of resources within own areas of responsibility.

Terms & Conditions

Our Terms and Conditions of Employment can be viewed [here](#).

Further Information

Please see our [website](#) for further information on working at the University of Exeter.