

Prof David Bogle FREng

Career to date

Pro-Vice-Provost (Head) of UCL Doctoral School 2005 to date
Professor, Department of Chemical Engineering, UCL 1990 to date
Lecturer 1990-4, Senior Lecturer 1994-7, Reader 1997-2000,
Professor 2000-
Associate Director, Sargent Centre for Process Systems Engineering 2007-
Honorary Professor of Chemical Engineering, Imperial College London
Visiting Professor, East China Institute of Science and Technology 2016-
Scientific Vice-President, European Federation of Chemical Engineers 2018-21
Deputy President, IChemE 2021-22 (President (22-23))

Lecturer, Department of Chemical Engineering, University of Adelaide 1986-90
Senior Scientist/Engineer, British Gas Corp, London Research Station 1983 – 86

Recognition, Awards and Fellowships

Fellow of the Royal Academy of Engineering 2005
Institution of Chemical Engineers Council Medal 2005
Fellow of the Institution of Chemical Engineers 1997
Member of RAE2008 Chemical Engineering Panel
Member of European Academy of Sciences and Arts 2007
Member of BBSRC Integrative and Systems Biology Strategy Panel (06-10)
Member of BBSRC Bioscience Skills and Careers Panel (08-10)
Member of EPSRC College (96-)
UK representative of European Federation of Chemical Engineers Working Party
on Computer Aided Process Engineering (1997-) and Deputy Chair (2003-08)

Current Role

As Pro-Vice Provost of the Doctoral School my role is to develop strategy for doctoral education at UCL, to provide training and support for students beyond their disciplinary boundaries, and to oversee the standards and regulations of research degree qualifications. UCL has 5600 research students. I oversee the development and delivery of UCL's Doctoral Education Strategy, Faculty doctoral strategies, generic skills training for doctoral students, Research Council doctoral training bids and management, postgraduate scholarship awards and all other matters concerning doctoral education at UCL. Through my chairmanship of the League of European Research Universities Doctoral Studies Policy Group I have been lead author on three influential doctoral studies policy papers and have advised Higher Education Ministries, Research Councils and major Universities across most European countries. I also have teaching and research responsibilities in Engineering.

As Scientific Vice President of the European Federation of Chemical Engineers I speak for scientific policy matters on the EFCE Board and convene the chairs of the Scientific Working Parties and Sections.

Research Expertise

My research is in Process Systems Engineering – in the development of mathematical and computational methodologies for complex industrial chemical and biological processes and also in complex physiological processes, a field known as Systems Biology. I have developed new methodologies in the

design of very large complex systems, developing controllable systems, in finding globally optimal solutions, and in identifying and exploring model sensitivities. My work has been supported by Engineering and Physical Sciences Research Council of the UK, European Commission, UK Department of Business Industry and Skills, and industry (UK, US, and Switzerland). I am a Deputy Director of the Centre for Process Systems Engineering (a joint Centre with Imperial College London).

Other Appointments and affiliations

Professional Bodies:

Deputy President and Trustee Board Member of Institution of Chemical Engineers (2021-)
Chair of Steering Group of League of European Research Universities Doctoral Studies Policy Group (2008 -)
Chair of Royal Academy of Engineering Transforming Systems Through Partnership Programme Steering Committee (2015-)
Chair of Royal Academy of Engineering/Engineering Council Engineering Ethics Reference Group (2019-)
Royal Academy of Engineering International Committee (2012-20)
Royal Academy of Engineering Research and Secondments Committee (2009-12)
Lead Chemical Engineer for the Royal Academy of Engineering (2009-12)
Member of Board of the Engineering Council UK (2007-2013)
Chair of Engineering Council Working Groups developing guidelines on Sustainability (2009) and on Risk (2010)
Member of Council of Institution of Chemical Engineers (2004-2008)
Member of Natural Sciences Committee of the U.K.'s National Commission for UNESCO (04-11)
Board of the New London Orchestra (2006-)
Member of BBSRC Integrative and Systems Biology Strategy panel (2006-10)
Member of BBSRC Bioscience Skills and Careers Strategy panel (2008-10)
Chair of BBSRC Systems Biology Skills Training panel (2008-9)
International Advisory Board for University of Sheffield Chemical Engineering at the Life Science Interface Institute (2006-)
Chairman of Computer Aided Process Engineering Subject Group of Institution of Chemical Engineers (2001-2007)
UK representative of European Federation of Chemical Engineers Working Party on Computer Aided Process Engineering (1997-) and Deputy Chair (2003-08)
Member of International Federation of Automatic Control (IFAC) Technical Committees on Chemical Process Control and on Control of Environmental Systems
Member of Management Committee of International Project on Standardised Validation of Physical Properties (National Institute of Standards and University of Virginia) (1997-9)
Liveryman, Worshipful Company of Engineers (2003)
Associate Fellow of the Institute of Mathematics and its Applications (1993)

Expert Advice

Review of researcher training in Universities in Flanders for Flemish Research Council (2018)
Advice to Helmholtz Association on doctoral education (2017)
Advice to French Higher Education Ministry on Doctoral education reforms (2015)
Review committee of new Doctoral Programme Structure, Fonds Nationale de Recherche, Luxembourg (2015)
Keynotes on doctoral education for Utrecht (17), Amsterdam (17) and Leiden (18) Universities in the Netherlands.
Advisory Board RWTH Aachen Graduate School AICES Computational Engineering (2014-20)
Guardian Round Table on Postgraduate Education (2013)
Review of Warwick University Graduate School (2013)
UK representative on European Research Area Steering Group on Human Resources and Mobility Working Group on Innovative Doctoral Training for European Commission's Directorate General (Research) (2013-)
Oral evidence to House of Lords STEM education review (2012)
Keynote for Global Round Table on doctoral education in South Eastern Europe (Budapest 2012)
Expert advisor on doctoral education to Director General (Research) of European Commission (Brussels 2012)
External Member of Transferable Skills Review for Imperial College (2011-12)

Board member of Steering Committee for Graduate Campus of University of Zurich (2012 -)
Rapporteur for Rational Use of Energy Seminar sponsored by Joule Programme of the EC (96)
Member of Expert Advisory panel for UNIDO symposium on Modelling in Chemistry and the Chemical Industry (Trieste 1998)

Peer review activities:

Panel Member French Agence National de Recherche Ecole Doctorale Programme (2017, 2019) and Programmes et Equipment Prioritaires de Recherche Exploratoires (2021)
Panel member for Helmholtz Association International Partnerships awards (2019, 2020, 2021)
Panel member for Portuguese National Research Council (2018)
Panel Member Luxembourg Fonds Nationale de Recherche new Doctoral Programme Grants (2016)
Panel Member of grants for new Doctoral Programmes University of Vienna (2015)
Panel Member EPSRC Engineering Grants (2016)
Vice Chair of BBSRC Multidisciplinary Synthetic Biology Research Centres panel (2014)
Vice Chair of EPSRC Engineering Fellowships for Growth - Synthetic Biology panel (2014)
Reviewer for Royal Academy of Engineering Queen Elizabeth Prize for Engineering (2013)
Member of panel reviewing Engineering at Heriot Watt University (2011)
Member of College of Engineering for the Engineering & Physical Sciences Research Council (EPSRC) ('96-)
Member of Chemical Engineering RAE2008 panel (UK Research Assessment Exercise)
Chair of EPSRC Green and Sustainable Technologies panel (2007)
Chair of EPSRC Control and Systems and Life Sciences Discipline Hopping panel (2006)
Chair of Royal Academy of Engineering Distinguished Visiting Fellowships panel (2007-)
Royal Academy of Engineering Emerging Technologies Professorship panel (2008)
Royal Academy of Engineering Membership Panel 4 (2008-12)
Appointment Panel University of Sheffield Head of Automatic Control and Systems Engineering Department (08) and chairs in Chemical Engineering at University of Edinburgh (08)
Regular reviewer for EPSRC, Australian Research Council, Leverhulme Trust, Singapore Research Council, Hong Kong Research Council, Royal Society, Royal Academy of Engineering, NATO, Qatar National Foundation, and the Commonwealth Scholarship Commission, and many international conferences and journals
Member of University of London Academic Trust Fund Committee (expert advisory committee B: Engineering, Science and Medicine, '94-00)
Assessed professorial promotion cases for Universities in U.K., Australia, Hong Kong, Jordan, Kuwait, Finland and South Africa

Consultancies:

Consulting activities for Bresatec Ltd, South Australia (1988-9), Bayer AG (1990) and F. Hoffmann-La Roche, Basel (1994-5), Aegis Analytical, HEL (2005-6)
Member of Scientific Advisory Board for Aegis Analytical, Colorado (1998-2005)

Conference organisation:

Co-chair of Scientific Committee for 12th European Conference on Chemical Engineering, ECCE/ECAB September 2019
Technical Programme Director, 7th World Congress of Chemical Engineering July 2005.
Member of International Programme Committee for Process Systems Engineering Conferences in 97, 2000, 03, 06, 09, 12 and 15
Chair of 22nd European Symposium on Computer Aided Process Engineering, London 2012
Member of International Programme Committee for 4th, 10th through to 27th European Symposia on Computer Aided Process Engineering
Chair of National Organising Committee and member of International Programme Committee for first IFAC workshop on the Interactions between Process Design and Process Control held in London in September 1992.
Scientific Committee for Italian Conferences on Chemical Engineering and CHISA (Prague)
Co-chair Symposium on Chemical Process Control, IFAC World Congress 1996.