



## The Royal Academy of Engineering

The scheme for Visiting Professors in Engineering Design for Sustainable Development began in 1998, and has now admitted four tranches of applicants.

### **Phase 1** (started in 1998)

- **Barrie Mould** (The Built Environment) at **University of Brighton**. Barrie is Technical Director of WS Atkins Environment. He has 30 years of experience in Industry and Government, and is heavily involved in advising on the environmental aspects of industrial projects in Eastern Europe.
- **Gordon Baker** (Sustainability and Transport in the Living City) at **Heriot-Watt University**. Gordon is an associate with SIAS Limited of Edinburgh. He has 20 years of experience, since graduating in civil engineering, focusing on the traffic effects of major development projects.
- **Jeremy Purseglove** (Water and Environmental Management) at **University of Hertfordshire**. Jeremy is a landscape architect with Mott MacDonald Limited, has over 20 years experience of integrating engineering schemes with the environment, particularly in relation to civil engineering schemes affecting rivers and wetlands.
- **Jeff Hulse** (Chemical and Process Engineering) at **University of Newcastle upon Tyne**. Jeff is a chemical engineer, with over 30 years experience, and was most recently Group Environment, Health and Safety Manager for BASF.
- **Roger Booth** (Renewable and Sustainable Energy) at **University of Oxford**. Roger is also a chemical engineer with over 35 years of experience, and from 1987-1996 was Head of Renewable Energy with Shell International.

### **Phase 2** (started in 1999)

- **Charles Ainger** (Sustainable Construction) at the **University of Cambridge**. Charles is head of Sustainable Development for Montgomery Watson Harza (Europe). He has extensive UK and international experience in the planning, procurement, direction, design and management of projects, mainly in the water and environmental field. He specialises in introducing sustainability concepts and strategies into engineering.
- **David Bartholomew** (Energy Conservation in the Built Environment) at **De Montfort University**. David is now a self-employed consultant with over 25 years experience in R&D and consulting on energy conservation and alternative energy projects.
- **Ken Snowdon** (Design Manufacture and disposal of Electronic Products) at **Loughborough University**. Ken is Technical Manager, Eco-Design and High Density Interconnect at Nortel Networks. He has a world-wide role within Nortel for "Green Design Materials and Processes".
- **Charles Duff** (Processing, Recycling and Dematerialisation) at **University of Surrey**. During a 30 year career in industry, Charles became a lead figure in environmental reporting, and completed secondments to World Business Council for Sustainable Development and Department of the Environment. He was with the Groundwork Foundation before taking up this post at Surrey.

- Jim McQuaid CB FREng (Energy and the Built Environment) at **University of Ulster**. Jim retired as Chief Scientist at the Health and Safety Executive immediately prior to taking up this appointment at Ulster.

#### **Phase 3** (started in 2000)

- Jose Lopez-Merono (Manufacturing and Materials) at **Aston University**. Jose has recently retired from ICI, after a 30 year career in process development.
- Gary Acres OBE (The Hydrogen Economy) at **University of Birmingham**. Gary is currently an advisor to Johnson Matthey, where he worked for over 30 years, primarily on catalyst systems for environmental protection. He led the team that received both the Queen's Award for Technology (1977) and the MacRobert Award (1981) for the development of catalytic emission control systems for motor vehicles.
- George Howarth (Product Design and Waste Prevention) at **Bournemouth University**. George is currently Director of Group Environmental Affairs, Smith and Nephew plc.
- Harry Eccles (Contaminated Land Remediation) at **University of Edinburgh**. Harry is currently Principal Scientist, Research & Technology, BNFL. He has for thirty years or more specialised in reducing the impact of toxic heavy metals in the environment.
- Richard Dodds FREng (Consumer Goods) at the **University of Liverpool**. Richard has recently retired from Unilever after a thirty - year career covering a wide range of technology roles, including management of its corporate environmental engineering resource.

#### **Phase 4** (started in 2002)

- David Welsh (Power Generation in Developed and Developing Countries) at the **University of Bristol**. David is Director Health Safety and Environment at Rolls-Royce plc.
- Jim Poole (Environmental Protection) at **University of Cardiff**. Jim is Sustainable Development Manager at Environment Agency Wales.
- Barbara Carroll (Sustainability Assessment of Infrastructure Projects) at **University of Glasgow**. Barbara is Director of environmental and sustainability consultancy, Enfusion Ltd.
- Roger Venables (Sustainability of Large Infrastructure Projects) at **Queen's University, Belfast**. Roger is Managing Director of Crane Environmental, and was the 2001 Institution of Civil Engineers Brunel International Lecturer on the theme of "*Delivering Sustainable Development*".
- John McDougall (Whole Life Engineering) at **Sheffield Hallam University**. John is currently president of the Institution of Mechanical Engineers, and spent 27 years working with WS Atkins.
- David Slater CB (Chemical Processing) at **UMIST**. David was formerly Director of Environmental Protection with the Environment Agency

#### **Phase 5** (started in 2003)

- **Mark Fletcher** Mark is a water engineer and engineering geologist. He is the Associate Director of Arup Water and will be working with the **University of Bradford**. He will use case studies drawn from UK water management and community regeneration, together with selected projects from developing and transitional countries as the primary means to illustrate how engineering design can include sustainable development principles and provide solutions that can be truly economic and socially acceptable as well as effective.

- **Alan Emery** Alan retired with exceptionally wide experience in 2002 having been Head of Health, Safety and Environment for Rio Tinto plc, a mining group with operations across the globe in many social, economic and environmental contexts and has since worked as a consultant to the industry. He will work with the **University of Bath** employing case study material addressing both technical and non-technical aspects of the design of mining and mineral processing projects, particularly as they relate to sustainable development.
- **Sandy Halliday** Sandy is principal of Gaia Research, the practice she founded in 1996, which provides research, training and consultancy services to support sustainable design of the built environment. Sandy has increasingly been able to bridge the gap between architecture and engineering research and practice. She will be Visiting Professor to the **University of Strathclyde**, where she will develop multi-media teaching packages that can be use by students as self-paced learning materials.
- **Lorna Walker** Lorna is a recognised authority in the fields of water quality and waste treatment. She will work with the **University of Sheffield** to develop teaching on sustainable issues. Arup Environmental have recently developed SPeARTM (Sustainable Project Assessment Routine) an instrument capable of illustrating and optimising the underlying issues associated with sustainability, namely economics, social, natural resources and environment. SpeARTM will be used as a tool to introduce sustainability into engineering, product and urban design at Sheffield.
- **David Raffo** David is Chairman of Raffo Design and worked in both the manufacturing industry and consultancy before becoming Principal Designer with the Xerox Corporation working in both the US and Europe. An experienced teacher and hands-on developer, David will join the core group developing the plan of study for a new programme in Product Design at the **University of Leeds**. He will assist in the development of teaching materials based on real case studies of sustainable design of engineering products and ensure sustainability issues are embedded within teaching assessment methods the students learn and use.