



# Honorary Professorships 2020/21

## College of Science and Engineering

### **Philip Thornton, School of Geosciences**

Philip Thornton leads the “Priorities and Policies for Climate-Smart Agriculture” Flagship of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). He is hosted by the International Livestock Research Institute (ILRI) in Nairobi, Kenya, where he is a Principal Scientist, and based in Edinburgh, Scotland. His research centres on the assessing, prioritizing and targeting adaptation options and policy support in smallholder farming systems at risk from climate change. He received a BSc (Hons) degree in agricultural systems from Reading University in the UK and a PhD in farm management from Lincoln College in New Zealand. He has over thirty-five years’ experience in agricultural research for development in many countries throughout the tropics and subtropics, particularly in Africa and Latin America. He has contributed to several global assessments in the area of agriculture and food systems, including the IAASTD and the IPCC’s Fourth and Fifth Assessment reports. He is a Lead Author for the IPCC’s Sixth Assessment Report, for Working Group II and the chapter on food, fibre and other ecosystem products, and also contributing to background papers for the UN Food Systems Summit later in 2021.

### **Ian Bell, School of Chemistry**

Ian joined Afton Chemical in 2008, has since held several R&D Leadership roles in Afton and is now Senior R&D Director for Technology Research and Engine Oil Development. This is a global role responsible for all formulation research, additive, polymer and product development in the business. Ian is also responsible for all long-term chemical and physical science research for the corporation.

Prior to Afton, Ian has had over 2 decades of experience in the lubricant industry, leading commercial development of lubricant additives, several formulation, customer and OEM-facing roles and specific roles on strategy and planning.

Ian is originally from Brechin in North East Scotland. He gained Honours degree and PhD in Chemistry from the University of Edinburgh, and his MBA at Oxford Brookes University in 2004. During this time Ian was also accepted as a Fellow of the Royal Society of Chemistry, is a Chartered Chemist and is very active in the RSC management boards.

#### Research Areas:

Chemistry of lubricants and fuels. The elucidation of key performance and reaction mechanisms within this space. Additive synthesis methodologies and characterisation, focused on the conversion of these insights to new products. System and chemical simulation methods. Formulated product development, primarily focused on reduction of automotive emissions and improved vehicle fuel economy.

### **Martine Labbé, School of Mathematics**

Martine Labbé is honorary professor at the Université Libre de Bruxelles (ULB). From 1999 to 2019 she was Professor of Operations Research at the Computer Science Department of the Faculty of Sciences. Her main research area is discrete optimization, including graph theory and integer



programming problems and with a particular emphasis on location and network design problems. She is also specialised in bilevel programming and studies pricing problems and Stackelberg games.

She served on the editorial boards of *Discrete Optimization*, *Journal on combinatorial Optimization*, *Operations Research*, *Operations Research Letters* and *Transportation Science*. She was the Editor in Chief of the *EURO Journal on Computational Optimization* from 2012 to 2020.

In 2007-2008, she was president of EURO, the Association of European Operational Research Societies. She was, in 2014 and 2015, Vice-Chair of the SIAM Activity Group on Optimization (SIAG/OPT).

In June 2019 she was awarded the EURO Gold Medal.

### **Ed Craig, School of Geosciences**

Ed was the founder of ECCI and the Low Carbon College (LCC) and was recently made Executive Dean of Staffordshire University.

Ed's expertise is in forging Global Knowledge Triangle Initiatives that drive impact through innovative research, educational models, business innovation and entrepreneurship. Ed has had a very strong focus on sustainability for the last 15 years and is one of Scotland's key thought leaders on sustainable innovation. Ed designed and founded, and is currently on the board, of the NatWest Project (about to be launched) which will retrain all NatWest business facing staff to incorporate green thinking in conversations with their business customers. Ed founded LCC, which led to SJTU becoming University of Edinburgh's top global academic partner as we forge a joint institute through new interdisciplinary education PGT delivery models.

Ed is on the board of WWF, a senior fellow at Boston University Institute for Sustainable Energy, and has attended and spoken at the last two COPs and was in Paris for the key COP.

### **Professor Yasuyuki Takata, School of Engineering**

Yasuyuki (Yas) Takata is a professor of thermofluid physics in Department of Mechanical Engineering and a Principal Investigator of the International Institute for Carbon-Neutral Energy Research (WPI-I2CNER), Kyushu University, Japan.

Yas graduated from the Department of Nuclear Engineering in 1979 and received Ph.D. in 1984 from Department of Energy Conversion Engineering, Kyushu University. He was appointed as a lecturer in 1984 and promoted to associate professor in 1986 and then full professor in 2003.

His research area covers a wide range of thermal engineering and heat transfer; liquid-vapor phase change such as the effect of surface wettability and nano/microstructures on pool boiling, spray cooling of hot surfaces, and thermophysical properties of hydrogen. He received a number of awards such as The JSTP Best Paper Award in 2010, Heat Transfer Society Award for Scientific Contribution in 2002, and JSME Thermal Engineering Achievement Award in 2010, JSME Thermal Engineering Award for International Activity in 2018, ASME ICNMM2018 Outstanding Leadership Award in 2018 and ATPC Significant Contribution Award in 2019.

Yas served as a chairman of Thermal Engineering Division and executive board director of the Japan Society of Mechanical Engineers (JSME), President of the Japan Society of Thermophysical Properties (JSTP) and President of the Heat Transfer Society of Japan (HTSJ). He is currently the President of Asian Union of Thermal Science and Engineering (AUTSE) since November 2020. He is a Council Member of the Science Council of Japan since October 2020.



**Professor Christopher Bishop, School of Informatics**

Christopher Bishop is a Microsoft Technical Fellow and Laboratory Director of the Microsoft Research Lab in Cambridge, UK. He is also an Honorary Professor of Computer Science at the University of Edinburgh, and a Fellow of Darwin College, Cambridge. In 2004, he was elected Fellow of the Royal Academy of Engineering, in 2007 he was elected Fellow of the Royal Society of Edinburgh, and in 2017 he was elected Fellow of the Royal Society.

Chris obtained a BA in Physics from Oxford, and a PhD in Theoretical Physics from the University of Edinburgh, with a thesis on quantum field theory. At Microsoft Research, Chris oversees a world-leading portfolio of industrial research and development, with a strong focus on machine learning and AI, and creating breakthrough technologies in cloud infrastructure, security, workplace productivity, computational biology, and healthcare.

Chris is the author of two highly cited and widely adopted machine learning text books: *Neural Networks for Pattern Recognition* (1995) and *Pattern Recognition and Machine Learning* (2006). He has also worked on a broad range of applications of machine learning in domains ranging from computer vision to healthcare. Chris is a keen advocate of public engagement in science, and in 2008 he delivered the prestigious Royal Institution Christmas Lectures, established in 1825 by Michael Faraday, and broadcast on national television.

Chris is a member of the UK AI Council. He was also recently appointed to the Prime Minister's Council for Science and Technology.