

Sandro Macchietto

Professor of Process Systems Engineering in the Department of Chemical Engineering, Imperial College London

Sandro Macchietto is Professor of Process Systems Engineering in the Department of Chemical Engineering, a Director of the cross-faculty Energy Futures Lab and a Member of the Court of Imperial College London. He graduated from the University of Padova, Italy and obtained a PhD from the University of Connecticut, USA, both in chemical engineering.

His research expertise include the application of mathematical methods to optimise process design, control and operation; model-based experiment design techniques to assist in rapid model development and validation, and the use of systems methods for the development and optimisation of sustainable energy systems. His work on optimisation and model design of experiments is widely used within leading process simulators.

His interest in experimenting with the research environment so as to generate sparks has lead to the creation of innovative mechanisms for fast track research, such as a successful Process Concept Studio, and promotion of interfaces between academia and industry. He co-founded and was a director of the interdisciplinary Centre for Process Systems Engineering, led and managed the launch of Process Systems Enterprise Ltd, one of the first Imperial College spinouts and was a driving force behind the formation of Imperial's Energy Futures Lab. He launched and is Director of a successful new interdepartmental Master in Sustainable Energy Futures.

He is a visiting professor at the University of Padova, Italy, a member of the Advisory Board of ENSIACET (Institut National Polytechnique) in Toulouse, France, a director of the Asia Pacific Technology Network and a frequently invited speaker on technology and R&D policy.

He is the recipient of several awards, including the IChemE Hutchinson Medal (1992), Finalist in the 1998 Computerworld-Smithsonian Award for Innovation (Manufacturing), a Queen's Award for Enterprise in 2001 (with Process Systems Enterprise Ltd) and a Queen's Award for Excellence in 2003 (with the Centre for Process Systems Engineering). He was made a Cavaliere of the Order of Merit of the Italian Republic by its President in 2004 and is a co-winner of the 2008 MacRobert Award, the Royal Academy of Engineering top award for innovation.