Curriculum Vitae

Prof. Dr.-Ing. Wolfgang Marquardt

Employment

since July 2014	Chairman of the Board of Directors of Forschungszentrum Jülich GmbH, Vice President of the Helmholtz Association, Coordinator of Research Field Key Technologies
2011–2014	Chairman of the German Council of Science and Humanities
since 1993	Professor (C4) of process systems engineering at RWTH Aachen University, on leave since July 2014
2007 - 2011	Member of the Steering Committee of the Cluster of Excellence Tailor-made Fuels from Biomass (TMFB)
2007–2009	Spokesperson of Aachen Chemical Engineering (AVT)
2006–2011	Director, Center for Computational Engineering Science, RWTH Aachen University
2006 - 2011	Member of the Steering Committee of Aachen Institute for Advanced Study in Computational Engineering Science (AICES)
2004	Visiting professor, Delft University of Technology, Netherlands
1999	Olaf Hougen Visiting Professor, University of Wisconsin, Madison, USA
1999 - 2009	Director of the Collaborative Research Center 540, Model-based experimental analysis of kinetic phenomena in reactive fluid multi-phase systems, at RWTH Aachen
1997 - 2006	Co-Director of the Collaborative Research Center CRC 476, Information technology support of chemical engineering design processes, at RWTH Aachen
1996	Offer of ETH Zürich (Professor for Process Systems Engineering), declined
1996	Offer of Max-Planck-Institut for Dynamics of Complex Technical Systems, Magdeburg (Scientific Member and Director, Process Systems Engineering Department), declined
2010	Co-founder of the spin-off company S-Pact GmbH
2002 - 2014	Co-founder of tech transfer platform AixCAPE e.V., Aachen, and Chairman of the Board
1988–1992	Research assistant (C1), Institute for System Dynamics and Control Technology, University of Stuttgart
1989–1990	Guest scientist, Department of Chemical Engineering, University of Wisconsin, Madison, USA
1982–1988	Doctoral researcher, Institute for System Dynamics and Control, University of Stuttgart

Academic Qualifications

1992	Habilitation, process dynamics and process control, University of Stuttgart
1988	Doctorate (Dr.-Ing.) at the University of Stuttgart
1982	Dipl.-Ing. degree (Chemical Engineering), University of Stuttgart

Awards and Honours

2016	Nordic Process Control Award
since 2014	Member of Leopoldina, the German National Academy of Sciences
2007	Fellow of the International Federation of Automatic Control (IFAC Fellow)
since 2002	Member of the German National Academy of Science and Engineering
2001	Leibniz Prize of the German Research Association
since 1998	Member of the North Rhine-Westphalian Academy of Sciences, Humanities and the Arts
1990	Arnold-Eucken-Preis of VDI-Gesellschaft Verfahrenstechnik und Chemie-Ingenieurwesen (GVC)
1988	Preis der Freunde der Universität Stuttgart (for dissertation)
1979	Book award of VDI-Gesellschaft Verfahrenstechnik und Chemie-Ingenieurwesen (GVC) for exceptional Vordiplom in Chemical Engineering

Publications

about 350 ISI-listed publications
more than 25 publications in edited books
more than 200 peer-reviewed refereed conference publications

h-index: 41 (ISI, November 2017)
h-index: 56 (Google Scholar, November 2017)
h-index in last five years: 34 (Google Scholar, November 2017)

Scientific interest

Model-based methods chemical engineering, process systems engineering: modeling and analysis of chemical process systems, process synthesis and design, process operations and control, product design, integrated process and product design, model-based experimental analysis of chemical process systems, numerical methods (simulation, inverse problems, dynamic optimization), and information technology (methods and tools) for the support of model-based design processes.
Applications in biorenewables processing, polymerization, seawater desalination and wastewater treatment, biofuel design, design of hybrid separations (rectification, extraction, absorption, membrane processes, crystallization), design of reactor systems, real-time optimization and model-predictive control of chemical process systems, identification of meso-scale kinetics such as reaction kinetics and transport phenomena, calibration of high-resolution measurement devices (spectroscopy, chromatography, FBRM, etc.).