

Curriculum Vitae

Prof. em. Dr.-Ing. Dr. h.c. Detlef Zühlke

Professor (emeritus) for Production Automation at
the Technical University of Kaiserslautern



Education

- 1983** Doctorate at the Laboratory for Machine Tools at the RWTH Aachen on Robot Programming
- 1976** Graduated
- 1970** Studies in Electrical Engineering and Computer Engineering at the RWTH Aachen

Professional life

- 2017** Retirement
- 2009** Scientific Director of the research area Innovative Factory Systems (IFS) at the German Research Center for Artificial Intelligence (DFKI)
- 2004** Head of the AG for Man-Machine-Interaction at the German Research Center for Artificial Intelligence (DFKI) GmbH
- 1998** Foundation of the transfer location Center for Man-Machine-Interaction ZMMI at the University of Kaiserslautern
- 1991** Professor for Production Automation at the University of Kaiserslautern
- 1987** Senior Head of Department Airplane Maintenance Lufthansa Frankfurt
- 1987** Department Head of Operation Planning and Production Preparation at the workshops Lufthansa Frankfurt
- 1986** Boeing Corp. / Seattle Management Exchange Program
- 1985** Deutsche Lufthansa AG / Frankfurt, Assistant to the Director of Airplane Maintenance
- 1983** Chief Engineer / Department Head (WZL) in the areas of CIM and Robotics
- 1976** Research Assistant at the Laboratory for Machine Tools (WZL)

Appointments

- 2002** Appointment as Head of the Fraunhofer Institute for Information and Data Processing IITB in Karlsruhe in connection with a professorship for Interactive Real-Time Systems at the University of Karlsruhe
- 1998** Appointment to Chair for Production Systems at the Ruhr University Bochum

Areas of Research

New industrial control systems, communication technologies in industrial application
Analysis and design of Man-Machine-Systems for industrial applications, design of model-based Man-Machine-Interactions

Awards

- 2017 Manufacturing Leader of the Year Award
(Frost & Sullivan's Manufacturing Leadership Council / USA)
- 2017 Visionary Leadership Award (Manufacturing Leadership Council / USA)
- 2016 Smart Industry's TOP 50 Innovators of Digital Transformation
- 2016 Decoration of the Association of German Engineers (VDI)
- 2013 Honorary Doctorate of the Lucian Blaga University in Hermannstadt/Romania
for great merits and research success in the area of Smart Factory Technologies
- 2011 IFAC Outstanding Service Award
- 2005 VDI honor plaque for the merits in VDI/VDE Association for
Measuring and Automation Technology (GMA)
- 1983 Borchers Plaque of the RWTH Aachen for outstanding doctorate achievements

Acad. Pursuits

- 2002 Member of the Senate Working Group for
Structure and Development Planning of the University of Kaiserslautern
- 1997 Dean of the Faculty Mechanical Engineering and
Process Technology and member of the University Senate

Memberships

VDI/VDE-GMA, IFAC, ACM (Senior Member)

Honorary Offices

Chairman of the Technology Initiative *SmartFactory*^{KL}
Knowledge Transfer Ambassador for the potential area Production Technology
Automation – Focus on Industrie 4.0 of the State Government Rhineland-Palatine
Scientific Leader of the USEWARE Congress
Chairman of the VDI/VDE GMA Focus Project „Ambient Intelligence in Automation“
Chairman of the IFAC TC 4.5 on Man-Machine-Systems
Chairman and Member of Advisory Board of the
VDI/VDE Association for Measuring and Automation Technology
Chairman of the IFAC CC 4 on Mechatronics, Robotics and Components

Expert Activities

DFG, BMBF, several foundations, banks and courts

Collaboration in many international program committees

Advisory Board Activities

Advisory Board of the Austrian Federal Ministry for Transport, Innovation and Technology

Member of the Board of Governors, Manufacturing Leadership Council, USA

Member in the Advisory Panel of the Scientific Journal of Engineering Manufacture

VDE-ITG

EAE Electronics GmbH Mainz

Flanders Mechatronics Technology Centre Leuven

Lectures (selection)

2015 "Smart Factories für eine Industrie 4.0"
Schaufenster Industrie 4.0, Fellbach

2015 "INDUSTRIE 4.0 – the Future Manufacturing Paradigm"
The International Conference On Missions (INCOM) 2015, Ottawa

2014 "Industry 4.0 Initiative"
12th IEEE International Conference on Industrial Informatics (INDIN-2014),
Porto Alegre

2010 IFAC International Conference on Management and
Control of Production and Logistics, Coimbras

2009 International Workshop on Software Convergence Technology, Seoul

2009 European Annual Conference on Human Decision-Making and Manual Control,
Reims

2009 IFAC Symposium on Information Control Problems in Manufacturing, Moscow

2008 MESA International Plant-to-Enterprise Conference, Prague

2008 IFAC World Congress, Seoul

2007 International Federation of Automatic Control (IFAC) Symposium on Analysis,
Design and Evaluation of Man-Machine Systems, Seoul

Publications (selection)

Handbuch Industrie 4.0: Geschäftsmodelle, Prozesse, Technik.

2017; Herausgeber: Gunther Reinhart;

ISBN 978-3-446-44642-7

Artikel: Von CIM zu Industrie 4.0 –Einleitung.

Wandelbare modulare Automatisierungssysteme.

Strategien zur Transformation der Produktionsumgebung.

Die Smart Factory für individualisierte Kleinserienfertigung.

Intelligente Vernetzung in der Fabrik.

Industrie 4.0 Umsetzungsbeispiele für die Praxis.

2015; Herausgeber: Gunther Reinhart, Bernd Scholz-Reiter, Wolfgang Wahlster,

Manfred Wittenstein, Detlef Zühlke;

ISBN 978-3-8396-0930-9

Nutzergerechte Entwicklung von Mensch-Maschine-Systemen.

Useware-Engineering für technische Systeme.

2012; Herausgeber: Detlef Zühlke;

ISBN 978-3-642-22074-6

Model-Driven Development of Advanced User Interfaces.

2011; Herausgeber: Heinrich Hussmann, Gerrit Meixner, Detlef Zühlke (Eds.);

ISBN 978-3-642-14562-9

Der intelligente Versager. Das Mensch-Technik-Dilemma.

August 2005; Herausgeber: Detlef Zühlke;

ISBN 389678276-2