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# Prof. Dr. Max Mühlhäuser

## Personal Information

Marital status: married, three children  
Nationality: German  
Date of Birth: June 13, 1957  
Birthplace: Pforzheim, Germany

## Current Position

**Since 2000** Full Professor **Technische Universität Darmstadt**  
Head, Telecooperation Lab, Dept. of Computer Science  
**Functions (selection)** Dean (2016–2018, 2002–2004), Vice Dean (2014–2016),  
Dean of Studies (2001–2002)  
Speaker, Research Training Group (GradSchool) *Privacy&Trust* (since 2015)  
Deputy Speaker (2013–2020) and PI (since 2013), Collab. Research Center  
'MAKI' on *Future Internet*  
Directorate Member / Research Area Head,  
IT-Security Research Institutes CASED (since 2008), then ATHENE  
Head, Departmental Computing Services (until 2013)  
Speaker, Research Training Group (GradSchool) *E-Learning* (until 2010)

## Professional Career

**1995–1999** Full Professor **Universität Linz**  
Head, Telecooperation Division  
Responsible for turnkey-ready entire floor at Ars Electronica Center Linz, including a series of exhibits and the 'class/conference room of the future'

**1997** Visiting Professor **University of California UCSD San Diego**

**1992–1994** Professor (C3) **Universität Karlsruhe**  
Head, Telecooperation Group  
Co-Head, Telematics Institute  
1993 Foundation of Telecooperation Office (TeCO)

**1989–1992** Professor (C3) **Universität Kaiserslautern**  
Head, Telematics Group; head of multinational research projects in distributed multimedia systems

**1988–1989** Senior Researcher **Universität Karlsruhe**  
Area Head of 'distributed-software engineering' and 'eLearning'

**1986–1988** Founding director **Digital Equipment Corp. Valbonne / Karlsruhe**  
Conceptual designer, founder and head, CEC research lab Karlsruhe  
research areas: E-Learning, distributed systems, computer networks

**1981–1986** Research Assistant **Universität Karlsruhe**

## Honors, Offers, Awards

**Honors** Academy member, acatech German Academy of Tech. Sciences (since 2016)  
Adjunct Professor, Queensland Univ. of Technology; numerous best paper awards; IBM UIMA Award; European Multimedia Award; Director of Honor CEC Karlsruhe; member, German National Academic Foundation

**Professorship Offers** **Technical University** **Twente (NL)**  
**Universität** **Klagenfurt (A)**  
**Institut** **Eurécom, Sophia Antipolis (F)**  
**Université de** **Montréal (CAN)**

## Education and Degrees

<b>1986</b>	Doctorate Highest Distinction (summa cum laude)	Universität Karlsruhe
<b>1976–1981</b>	Diploma Highest Distinction (awarded)	Universität Karlsruhe

## Current and Former Research Areas

**Since 2005:** Ubiquitous Computing – combining four fields of computer science:  
*Human computer interaction* (immersive, on-body, tangible, and fabricated interaction, hand / room / city scale interaction, telepresence)  
*Networks and distributed systems* (edge computing, middleware and services for Smart Cities and Spaces, big wireless and social networks)  
*Proactive intelligent systems* (multi-assistant platforms for ubiquitous computing, intelligent business process analytics, spatiotemporal prediction)  
*Privacy, trust and cybersecurity* (anonymous communication, cooperative bot-net / intrusion detection, trust-based assessment of security settings)

**Since 1988:** Knowledge Processing and E-Learning  
Semantic based knowledge processing and Web 2.0  
Computer augmented teaching venues: *Digital Lecture Hall (DLH)*, *Class/Conference Room of the Future (CCF)*, *Learning Appliances*  
Mobile learning (Notebook University)  
Ambient learning: *Learning@work*  
Reusable educational and didactical strategies on the Web

**1987–2005:** Cooperative Distributed Multimedia Systems  
(in 1997, integrated with ubiquitous computing research)  
Bio-analog approaches for lifelong media streams  
Digital Video: truly non-linear video browsing and editing in 3D  
Music: interactive music making (House-of-Music exhibit in Vienna is still being further developed)  
Compression: novel fast video compression scheme  
Quality of Service: Internet available bitrate / congestion avoidance  
CSCW: component based cooperation platform

**Since 1981:** Networks & Distributed Systems  
(in 1997, integrated with ubiquitous computing research)  
Software engineering and programming languages for distributed software  
distributed simulation of distributed software and its visualization

## Teaching Subjects

- At present:** Complete graduate cycle plus undergraduate teaching  
Lecture on Computer Networks & Internet  
Lecture on Distributed Algorithms, Distributed Programs  
Lecture on Ubiquitous Computing  
Lecture on HCI: Introduction to Human Computer Interaction  
(not regularly) Lecture on Web Engineering and Knowledge Networks  
(not regularly) Lecture on Privacy & Trust in Networked Systems  
(not regularly) Lecture on Distributed Multimedia Systems  
Corresponding exercises, practical lab courses, seminars,  
Theses (intermediate / Bachelor / Master / Diploma)  
Undergraduate Teaching, e.g., Fundamentals of CS  
Skills training (scientific research, publications, human communication)
- In the past:** Various further topics taught  
In particular: interactive systems, simulation, performance evaluation, specification & verification (all emphasizing distributed systems)

## Project Management

- Industry:** Numerous national and international projects  
e.g., SAP, Siemens, Royal Bank of Canada, VW, Honda, Lufthansa, IBM
- Public Funding:** Numerous **Collaborative** projects (individual grants not listed), funded by:  
German Research Foundation DFG, Fed. Ministry of Education & Research (BMBF) and of Economy (BMW); Government of Hesse; European Union (FP5–8), formerly: Austrian and French research foundations. *Examples:*  
DFG: two *Collaborative Research Centers* (Sonderforschungsbereich; one as Deputy Speaker), four *Research Training Groups* (Graduiertenkolleg; two as speaker); Research Unit (Forschergruppe). Topics include: Future Internet, Ubiquitous Computing, IT Security, Privacy & Trust, eLearning  
BMBF: e.g., project on smart critical energy infrastructures  
EU: IP 'Smart Products' (Scientific Coordinator), various others as PI

## Selected Memberships and Committees

- Academic Committees:** Membership / presidency in over a dozen university related committees
- Steering Committees /** SC member: IEEE Trans. Multimedia; EB: ACM IMWUT, ACM ToIT, J.UCS;  
**Editorial Boards:** before: Elsevier PMC, Intl. Jnl. Web Engineering, J. Distance Edu. Technology
- Research communities:** On average 2-3 (Co-)Organizer / PC Chair roles per year; *examples:* WWW, ACM Multimedia, ACM Ubicomp, IEEE Percom, IEEE ISM, ECOOP
- PC-Memberships:** On average, 8 conferences and workshops of different size/quality per year
- Reviews and Audits:** Reviewer for several national (D, F, N, USA, A, PT, FIN, ...) und EU research funding organizations; curatorship / audits / consultancy for public & industrial research institutes and programs (e.g., Fraunhofer-Ges., SAP, Daimler, SMEs); professorships recruitment comm. member at various European universities

## Selected Achievements

- Publications:** 549+77 peer reviewed conference+journal articles; 18 books / 46 chapters  
h-Index 41 (Google Scholar); (all numbers by end 2020)
- Funding acquired:** Last ten years: on average ~1.5 Million € per year
- Supervision:** PhDs: 71 completed as 1<sup>st</sup> reviewer; 32 as 2<sup>nd</sup> reviewer; 35 Postdocs supervised, 21 professors among alumni; more than 45 BSc./MSc. theses per year