

Curriculum Vitae

Prof. Dr. Marco Huber



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Date and place of birth: January 12, 1980 in Kehl, Germany

Family status: In a relationship, two children

Nationality: German

Professional Career

- Since 10/2018 Professor for Cognitive Production Systems with the University of Stuttgart, Germany
- Since 10/2018 Head of the Center for Cyber-Cognitive Intelligence at the Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Stuttgart, Germany
- 04/2015 – 09/2018 Chief Data Scientist & Team Leader with USU Software AG, Karlsruhe, Germany
- 04/2010 – 09/2018 Lecturer / Adjunct professor (Privatdozent) at the Department of Informatics, Karlsruhe Institute of Technology (KIT), Germany
- 07/2011 – 03/2015 Senior Researcher with AGT International, Darmstadt, Germany
- 06/2009 – 05/2011 Head of the research group “Variable Image Acquisition and Processing” of the Fraunhofer Institute of Optronics, System Technologies and Image Exploitation IOSB, Karlsruhe, Germany
- 02/2006 – 04/2009 Research assistant and Ph.D. student at the chair of Intelligent Sensor-Actuator-Systems (ISAS), Department of Informatics, Universität Karlsruhe (TH), Germany
- 01/2008 – 04/2008 Visiting scholar at the Australian Centre for Field Robotics (ACFR), University of Sydney with Prof. Hugh Durrant-Whyte
- 09/1999 – 06/2000 Basic military service, Wehrbereichskommando V / 10. Panzerdivision Generalstabsabteilung 2, Sigmaringen, Germany
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Education

- 01/2015 Habilitation, Karlsruhe Institute of Technology (KIT), Germany
Habilitation treatise: “*Nonlinear Gaussian Filtering: Theory, Algorithms, and Applications*”. Venia legendi in computer science
- 04/2009 Dissertation (predicate: summa cum laude), Karlsruhe Institute of Technology (KIT), Germany
Thesis: “*Probabilistic Framework for Sensor Management*”
Supervisors: Prof. Uwe Hanebeck and PD Dr. Wolfgang Koch
- 10/2000 – 01/2006 Diploma studies in computer science at the Universität Karlsruhe (TH)
- Degree: Dipl.-Inform. with honors
 - Thesis: “*Efficient Prediction of Nonlinear Systems by means of Approximating Transition Densities with Gaussian Mixtures*”
 - Specialization: knowledge-based systems, embedded systems
 - Supplementary: mechatronics
- 1986 – 1999 School years, matriculation standard

Awards

- 04/2009 Dissertation with predicate “summa cum laude”
- 02/2009 Teaching award for the best tutorial of a lecture in summer semester 2008
- Teaching award for the best laboratory in summer semester 2008
- 02/2008 Teaching award for the best tutorial of a lecture in summer semester 2007
- 07/2006 Top ten percent of computer science graduates
- Diploma studies in computer science graduated with honors

Memberships

- Since 2016 German Association of University Professors and Lecturers
- Since 2012 Project Management Institute
- Since 2006 IEEE Robotics and Automation Society
IEEE Signal Processing Society
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Scientific Activities

Guest Editor	Special Section “Multisensor Fusion and Integration for Intelligent Systems“, IEEE Transactions on Industrial Informatics, 2017
Member of the program committee	SimScience: International Workshop on Simulation Science (2017, 2019) MFI: IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems (2016, 2017) Fusion: International Conference on Information Fusion, 2017
Tutorial & Workshop Chair	MFI: IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems, 2016
Journal reviewer	Automatica at – Automatisierungstechnik Entropy IEEE Access IEEE Transactions on Aerospace and Electronic Systems IEEE Transactions on Automatic Control IEEE Transactions on Industrial Informatics IEEE Transactions on Neural Networks and Learning Systems IEEE Transactions on Signal Processing IEEE Signal Processing Letters Information Fusion International Journal for Numerical Methods in Engineering International Journal of Adaptive Control and Signal Processing Inverse Problems in Science & Engineering Journal of Guidance, Control, and Dynamics Mathematical Problems in Engineering Pattern Recognition MDPI Sensors The Scientific Pages of Robotics Transportation Research

Publications

Books, Chapters	2 monographs, 2 proceedings, 1 book chapter
Journals	11 articles published
Patents	3 patents, 2 utility models, 6 patent applications, 10 trade secrets
Conferences	48 peer-reviewed papers published

Research Topics

Machine Learning

Data Science / Data Analytics

Image and Signal Processing

Industry 4.0 and Digital Transformation

Nonlinear State Estimation

Planning and Optimization

Robotics and Automation
