

Prof. Dr.-Ing. Jörg Wallaschek

Institute of Dynamics and Vibration Research
Leibniz Universität Hannover
Head of Institute

Date of birth: 29.06.1960



Professional Career

Since April 2007	Full professor (W3) of mechanics. Director of the Institute of Dynamics and Vibration Research at the Leibniz University Hannover.
6/2004 – 8/2004	Visiting researcher at Center of Intelligent Material Systems and Structures and guest professor at Virginia Polytechnic Institute, Blacksburg, USA
1999 – 2003	Vice President (Prorektor Forschung) of the University of Paderborn
4/1998 – 8/1998	Visiting researcher at Robert Bosch GmbH, Corporate Research Center, Stuttgart
1996 – 2007	Full professor (C4) of mechatronics and dynamics. Director of the Heinz Nixdorf Institut at the University of Paderborn.
1992 – 1996	Associate professor (C3) of robotics and mechatronics. Director of the Heinz Nixdorf Institut at the University of Paderborn.
1990 – 1992	Research Associate at Daimler Benz Corporate Research Center Frankfurt
1991	Habilitation and venia legendi for mechanics, University of Darmstadt
1987 – 1990	Assistant professor (C1) of mechanics at Department of Mechanics at the University of Darmstadt.
1987	Doctorate in engineering mechanics, University of Darmstadt
1985 – 1987	Research assistant at the Department of Mechanics at the University of Darmstadt
1985	Diploma in engineering mechanics, University of Darmstadt
1979 – 1985	Studied industrial engineering and engineering mechanics at the University of Darmstadt and at the Ecole Centrale de Lyon, France
1978	Worked for Carl Schenck AG, Darmstadt

Primary Areas of Research

Dynamics and vibrations of machines
Active lighting systems
Piezoelectric ultrasonic motors and actuators

Professional Activities

Since 2000	Chairman of L-LAB, a public private partnership research institute for lighting technology and mechatronics of Hella KGaA, Hueck & Co. and University of Paderborn
Since 2000	Member of the executive board of OpTechNet e.V. and spokesperson of network of excellence on LED technology
Since 2000	Member of the expert panel on vibrations at Verein Deutscher Ingenieure (VDI) and Deutsches Institut für Normung (DIN)
Since 2004	Founding chairman and permanent member of steering committee for IWPMA (International Workshop on Piezoelectric Materials and Actuators): Seoul 2004,

- Paderborn 2005, Eskisehir 2006, Nanjing 2007
- Since 2003 Member of International advisory board for ICE (International Conference on Electroceramics): Boston 2003, Seoul 2005, Arusha (Tansania) 2007, Delhi 2009
- Since 2004 Founding chairman and organizer of (annual) L-LAB International Summerschool on Automotive Lighting and Mechatronics.

Professional Recognitions, Awards & Honors

- 2006 Best Practice Award for industry / university cooperation (for cooperation project with Hesse & Knipps GmbH). Chamber of commerce Ostwestfalen Lippe.
- 2001 Best Practice Award (for public private partnership L-LAB with Hella KGaA, Hueck & Co.), Stifterverband für die Deutsche Wissenschaft

Publications and Presentations Summary

- Wördenweber, B.; Wallaschek, J.; Boyce, P.; Hoffman, D.D.: Automotive Lighting and Human Vision (410 pages). Springer Verlag Berlin, Heidelberg, 2007
- Twiefel, Jens; Richter, Björn; Hemsel, Tobias; Wallaschek, Jörg: Model based design of Piezoelectric Energy Harvesting Systems. In: Smart Structures and Materials 2006: Damping and Isolation, Band 6196, pp. 616909ff., San Diego, USA 2006, SPIE - The International Society for Optical Engineering
- Mracek, Maik; Wallaschek, Jörg: A system for powder transport based on piezoelectrically excited ultrasonic progressive waves. Journal of Materials Chemistry & Physics, Volume 90 (Issues 2-3): pp. 378-380, 15. Apr. 2005
- Roslak, Jacek; Wallaschek, Jörg: Active lighting systems for improved road safety. In: 2004 IEEE Intelligent Vehicles Symposium: Parma, Italy, pp. 682-685 2004, Piscataway, NJ: IEEE
- Brökelmann, Michael; Krol, Rafal; Wallaschek, Jörg; Hesse, H.: A Self-Sensing Transducer for Ultrasonic Wire Bonding. In: Proceedings of the 18th International Congress on Acoustics (ICA 2004), 4-9 April 2004, Kyoto, Japan, Band IV, pp. 2901-2904
- Kauschke, Rainer; Wallaschek, Jörg; Eichhorn, Karsten: Aktive Lichtsysteme für das Kraftfahrzeug. In: 5. VDI-Mechatroniktagung 2003, Innovative Produktentwicklung, Fulda, 7.-8. Mai 2003, VDI-Bericht, Band 1753, S. 21-42, Düsseldorf 2003, VDI-Verlag
- Wallaschek, Jörg; Wedman, Sebastian; Wickord, Wiro: Lifetime observer: An application of mechatronics in vehicle technology. International Journal of Vehicle Design, 28(1/2/3): pp. 121-130, 2002
- Littmann, Walter; Storck, Heiner; Wallaschek, Jörg: Sliding friction in the presence of ultrasonic oscillations: superposition of longitudinal oscillations. Archive of Applied Mechanics, 71: pp. 549-554, 2001
- Wedman, Sebastian; Wallaschek, Jörg: Condition Monitoring in mechatronischen Systemen. In: Schwingungen in Anlagen und Maschinen, VDI-Bericht, Band 1606, pp. 243-258, Düsseldorf 2001, VDI-Verlag
- Wallaschek, Jörg: Contact mechanics of ultrasonic motors. Journal of Smart Materials and Structures, 7: pp. 369-381, 1998
- Poetsch, Gero; Wallaschek, Jörg: Pantograph/catenary dynamics and control. Vehicle System Dynamics, 28: pp. 159-195, 1997
- Wallaschek, Jörg: Piezoelectric ultrasonic motors. Journal of Intelligent Material Systems and Structures, 6(1): pp. 71-83, 1995