

Curriculum Vitae

Prof. Dr.-Ing. Dr. rer. nat. habil. Harald Schenk



Education

- 1990 – 1996 Studies of Physics at the Julius-Maximilians-University in Wuerzburg, Germany
- 1996 Diploma degree in physics
Diploma thesis: "Time-resolved photoluminescence measurements of the internal Mn²⁺-transition and porous silicon"
- 1997 – 1999 work on PhD thesis in electrical engineering: "A novel micro actuator for 1D and 2D deflection of light" at the Fraunhofer Institute for Microelectronic Circuits and Systems
Focus: Development of a CMOS compatible process for a 1D and 2D micro scanner incl. design and characterization of the scanner
- 2001 PhD degree from the Gerhard-Mercator-University, Duisburg
VDE dissertation award
- 2008 Habilitation in physics, topic: "Silicon based microoptical modulators"

Professional experience

- 2000 – 2002 Head of the group "Scanning Micro Mirrors and Inertial Sensors" at Fraunhofer Institute for Microelectronic Circuits and Systems
Focus: MEMS scanner devices, acceleration sensors and gyroscopes
- 2002 – 2005 Head of department "Micro Actuator Systems and Technology"
Focus: MEMS scanner devices, micro mirror arrays for micro lithography and adaptive optics
Program Manager for the Spatial Light Modulator development
- 2006 Co-founder of HiperScan GmbH (focus of this company on NIR-analytical instruments)
- 2004 – 2013 Deputy director of Fraunhofer Institute for Photonic Micro Systems
Head of business unit "Micro Scanner Devices"
- 2012 Appointment to professorship for Micro and Nanosystems at BTU Cottbus-Senftenberg
- 2012 – 2017 Head of Fraunhofer project group "Mesoscopic Actuators and Systems"
- 2013 – today Director of Fraunhofer Institute for Photonic Micro Systems

Memberships

- SPIE member
- VDI/VDE member
- Member of Fraunhofer Vintage-Class (2007 – 2012)

Services in the scientific community

- Symposium Chair "MOEMS/MEMS", part of SPIE Photonics West, 2011 – 2013
- Conference Chair "MOEMS Display and Imaging", part of SPIE Photonics West Symposium "MOEMS/MEMS", 2007 – 2012
- Co-Chair IEEE conference "Optical MEMS and Nanophotonics", 2011
- Steering Committee member of IEEE conference "Optical MEMS and Nanophotonics"
- Program Committee member of „MEMS, MOEMS and Micromachining“, part of SPIE Photonics Europe
- Founding Editorial Board Member Journal Optical Microsystems (2020)
- Senior Editor Journal for Micro/Nanolithography, MEMS and MOEMS, 2012 – 2020
- Associate Editor Journal for Micro/Nanolithography, MEMS and MOEMS, 2006 – 2012
- Various expert activities e. g. for DFG, SSF (Swedish Foundation for Strategic Research)
- Member of DFG review board electrical engineering 2018 – 2020
- Article review for various journals

Publications

- Author/Co-Author of more than 30 journal papers, 160 conference papers and 28 patents/patent applications
- Several contributions to book chapters
- Co-Editor of several conference proceedings

Research focus

- Micromachining, MEMS, optical MEMS
- CMOS compatible MEMS process development
- Micro and nano actuators/sensors
- Micro loudspeakers, micro scanners, micro mirror arrays
- System integration of micro sensors and application development