

Curriculum Vitae

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



Education

- 1990-1996 Studies of Physics at the Julius-Echter-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 the 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-founded HiperScan GmbH, the company is focusing on NIR-analytical instruments, current number of fulltime equivalent employees: 30
- 2004-2013 Deputy director of the Fraunhofer Institute for Photonic Micro Systems
Head of the business unit "Micro Scanner Devices"
- 2012 Appointment to a professorship for micro- and nanosystems at BTU Cottbus – Senftenberg
- 2012 – now Head of Fraunhofer project group "Mesoscopic Actuators and Systems"
- 2013 – now Director of the Fraunhofer Institute for Photonic Micro Systems

Memberships

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

Services in the scientific community

- Conference Chair „MOEMS Display and Imaging“, part of SPIE Photonics West Symposium „MOEMS/MEMS“, 2007 – 2012
- Symposium Chair „MOEMS/MEMS“, part of SPIE Photonics West , 2011 - 2013
- 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
- Various expert activities e. g. for DFG, SSF (Swedish Foundation for Strategic Research)
- Senior Editor Journal for Micro/Nanolithography, MEMS and MOEMS
- Article-Review for various Journals

Publications

- Author/Co-author of more than 22 journal papers, 150 conference papers and 25 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
- Mesoscopic effects
- System integration of MEMS and application development