

CURRICULUM VITAE

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Univ.-Prof. Dr.-Ing. Alexander Verl

Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW)
University of Stuttgart
Seidenstrasse 36
70174 Stuttgart

Phone: +49 711 685 82410
E-Mail: alexander.verl@isw.uni-stuttgart.de
<http://www.isw.uni-stuttgart.de>



Personal Information

Name: Alexander Wilhelm Verl
Date of birth: 13.07.1966
Private Address: Hofer Str. 27, 71636 Ludwigsburg, Germany
Mobile Phone: +49 175 583 8352
Status: married, three children (14, 12 and 9 years old)

Academic Qualification

- Dipl.-Ing. Electrical Engineering, Friedrich-Alexander-University Erlangen-Nürnberg, 1991
Dr.-Ing. Control Engineering, Institute of Robotics and Mechatronics (DLR), Oberpfaffenhofen, 1997
Univ.-Prof. Full Professor (W3), University of Stuttgart, 2005

Professional Employment

- 2005 - present: Full Professor and Head of the Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW), University of Stuttgart;
Research topics: manufacturing automation, robotics, machine tools, control engineering, simulation technology for production units, drive technology
- 2014 - 2016: Member of the Board, Fraunhofer Gesellschaft, München;
- 2006 - 2014: Head of Institute, Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Stuttgart;
- 1997 - 2005: Founder and Managing Director of AMATEC Robotics GmbH
(part of KUKA Roboter GmbH since 2005);
Business areas: high precision robots, temperature compensation for robots, machine vision, palletizing with robots.
- 1994 -1997: Research Assistant at the Institute of Robotics and Mechatronics at the German Aerospace Center (DLR), Oberpfaffenhofen;
Thesis title: "Nonlinear joint control of the DLR lightweight robot"
Degree: Dr.-Ing. (magna cum laude)
- 1992-1994: Development engineer at Siemens AG, Research Center Erlangen AUT 941
Research topic: Control Engineering

Honours & Awards

- 2014 Diesel Gold Medal from the German Institute of Inventions (D.I.E)
- 2012 Julius von Haast Fellowship Award by the Royal Society of New Zealand
- 2012 Honorary doctoral degree (Dr. h.c.) of the Technical University of Cluj-Napoca, Romania.
- 2012 Honorary Professor (Prof. h.c.) of the University of Auckland,
Department of Mechanical Engineering, New Zealand
- 2010 Invention & Entrepreneurship Award 2010 (IERA Award) of the IEEE Robotics and Automation Society (IEEE RAS), and the International Federation of Robotics (IFR).
- 2009 Honorary doctoral degree (Dr. h.c.) of the "Politehnica" University of Timisoara, Romania

Activities in Scientific Institutions and Committees

- 2007 - 2012 Head of WGP Special Interest Group for Robotics and Assembly
- 2008 - 2014 Committee Chairman SPS/IPC/DRIVES-Conference
- 2008 - present Conference Chairman International Symposium on Robotics (ISR)
- 2007 - 2014 President of Deutsche Gesellschaft für Robotik (DGR)
- 2010 - 2014 Member of the DFG Committee on Scientific Instrumentation
- 2012 - 2015 Member of der DFG Review Board on ProductionTechnology
- 2007 - present Member of the Board of the Industrial Consortium of the Stuttgart Research Centre for Simulation Technology
- 2004 - present Member of the Board in SERCOS International
- 2006 - present Associate Member of CIRP (The International Academy for Production Engineering)
- 2006 - present Member of the WGP (The German Academic Society for Production Engineering)
- 2011 - 2014 Chairman of GSaME: Graduate School of Excellence in advanced Manufacturing Engineering in Stuttgart
- 2007 - present Principal Investigator Stuttgart Research Centre for Simulation Technology (SimTech Cluster of Excellence)
- 2012 - present Member of the Board of the German Academic Society for Assembly and Industrial Robots (MHI)
- 2010 - present Chairman of the Research Committee of the International Federation of Robotics (IFR)
- 2014 - present Chairman of the Board of the Fraunhofer Foundation (Fraunhofer Zukunftsstiftung)

Patents

The following patent numbers can be found under my name according to

<https://depatisnet.dpma.de/DepatisNet/depatisnet>

<search ((PA=(Alexander (L) Verl)) OR (IN=(Alexander (L) Verl)))>

(in the field of Control, Robotics, Amusement Rides and Manufacturing Automation)

DE000019547010A1, EP000000963816A2, DE000019833953A1, DE000019833953C2, DE000019547010C2, EP000000963816A3, WO002005115700A1, DE102004024378A1, WO002005115700A4, EP000000963816B1, AT000000319538E, EP000001750909A1, CN000001953848A, DE102006010110A1, US020070227274A1, DE102007048012A1, US020090084285A1, US020090099690A1, JP002009082709A, CN000100484725C, DE102004024378B4, US020090181781A1, EP000001750909B1, DE102008005859A1, US000007681468B2, US000007922594B2, US000007971537B2, DE102010021001A1, DE102011105345A1, EP000002572766A1, DE102011114371A1, US020130079169A1, KR102013032849A, JP002013066722A, CN000103071291A, US000008920251B2, DE102013017045A1, US020160075029A1, EP000002572766B1

Publications

As of Mai 2016 my Score on ResearchGate was 28.85, my h-index was 16.

Representative Publications:

- Verl, A.; Boye, T.; Pott, A.: Measurement pose selection and calibration forecast for manipulators with complex kinematic structures, *CIRP Annals - Manufacturing Technology*, Vol. 57/1 (2008), pp. 425-428
- Verl, A.; Heisel, U.; Walther, M., Maier, D.: Sensorless Automated Condition Monitoring for the Control of the Predictive Maintenance of Machine Tools, *CIRP Annals - Manufacturing Technology*, Vol. 58/1 (2009), pp. 375-378
- Krüger, J.; Lien, T.K.; Verl, A.: Cooperation of Human and Machines in Assembly Lines, Keynote paper, *CIRP Annals - Manufacturing Technology*, Vol. 58/2 (2009), pp. 1-24
- Verl, A.; Frey, S.: Correlation between feed velocity and preloading in ball screw drives. In: *CIRP Annals Manufacturing Technology* 59/1 (2010), pp. 429-432
- Altintas, Y.; Verl A.; Brecher, C.; Uriarte, L.; Pritschow, G.: Machine Tool Feed Drives, Keynote paper, *CIRP Annals - Manufacturing Technology*, Vol. 60/2 (2011)
- Groh, Friedemann; Groh, Konrad; Verl, Alexander: On the inverse kinematics of an a priori unknown general 6R-Robot. *Robotica* 31 (2013), Nr. 3, S. 455-463
- Fantoni, G, Santochi, M, Dini, G, Tracht, K, Scholz-Reiter, B, Fleischer, J, Lien, TK, Seliger, G, Reinhart, G, Franke, J, Hansen, HN & Verl, A: Grasping devices and methods in automated production processes, Keynote paper, *CIRP Annals Manufacturing Technology* 63/2 (2014), pp. 679-701
- Verl, A.; Frey, S.; Heinze, T.: Double nut ball screw with improved operating characteristics. *CIRP Annals Manufacturing Technology* 63/1 (2014)
- Verl, Alexander (Hrsg.); Albu-Schäfer Alin (Hrsg.); Brock Oliver (Hrsg.); Ratz Annika (Hrsg.): *Soft Robotics - Transferring Theory to Application*; Springer Verlag, 2015, 291 Pages.
- Verl, A.; Engel, T.; Lechler, A.: Sliding Bearing with adjustable Friction Properties, *CIRP Annals Manufacturing Technology* 65/1 (2016)