Jun.-Prof. Dr.-Ing. Andreas Pott

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Born on August 4, 1977 in Solingen (Germany)

Scientific Career

2013 - now	Junior professor for simulation technology in production engineering at the Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW), University of Stuttgart
2010 - 2013	group manager at the department robot systems at Fraunhofer Institute for Manufacturing Engineering and Automation
2006 - 2010	senior researcher and project manager at the department robot systems at Fraunhofer Institute for Manufacturing Engineering and Automation
2007	University of Duisburg-Essen, Ph.D. (summa cum laude) in Mechanical Engineering “Analysis and Synthesis of parallel robots” (Supervisor: Prof. Hiller)
2003 - 2006	research assistant at the Chair of Mechatronics, University of Duisburg-Essen
1998 - 2003	University of Duisburg-Essen, Diploma in Mechanical Engineering

Awards, Internal and External Positions

Since 2012	general chair for the international conference on cable-driven parallel robots
Since 2011	coordinator for Fraunhofer strategic alliance ATLAS
2010	Award of Academic Society for Production Engineering Otto Kienzle commemorative coin
2010	Walter Reis Robotics Award
2001, 2003	VDI awards for best diploma

Ten most important publications

* Publications jointly together with UoA-researchers involved within this IRTG
§ Publications jointly together with USTUTT-researchers involved within this IRTG

A) Published in publication outlets with scientific quality assurance and book publications:

1. § Verl, A.; Boye, T.; Pott, A.: Measurement Pose Selection and Calibration Forecast for Manipulators with Complex Kinematic Structures. CIRP Annals – Manufacturing Technology, 57(1), p. 425-428, 2008.
2. Pott, A.; Kecskemethy, A.; Hiller, M.: A Simplified Force-Based Method for the Linearization and Sensitivity Analysis of Complex Manipulation Systems. Mechanism and Machine Theory, 42(11), p. 1445-1461, 2007.
3. Pott, A.; Bruckmann, T.; Mikelsons, L.: Closed-form Force Distribution for Parallel Wire-Robots. Book chapter in Computational Kinematics, p. 25-34, 2009.
4. § Tempel, P.; Miermeister, P.; Lechler, A.; Pott, A.: Modelling of Kinematics and Dynamics of the IPAnema 3 Cable Robot for Simulative Analysis. Applied Mechanics and Materials, 794, p. 419-426, 2015.
5. Tempel, P. Schnelle, F.; Pott, A.; Eberhard, P.: Design and Programming for Cable-driven Parallel Robots in the German Pavilion at the EXPO 2015. Machines 2015, 3, 223-241.
6. Schmidt, V.; Pott, A.: Investigating the Effect of Cable Force on Winch Winding Accuracy for Cable-Driven Parallel Robots, Proc IMechE Part K: Journal of Multi-body Dynamics, p. 1-5, 2015.
7. Kraus, W.; Miermeister, P.; Schmidt, V.; Pott, A.: Hybrid Position-Force Control of a Cable-Driven Parallel Robot with Experimental Evaluation. Mechanical Sciences, 6, p. 119-125, 2015.
8. Kraus, W.; Schmidt, V.; Rajendra, R.; Pott, A.: System Identification and Cable Force Control for a Cable-Driven Parallel Robot with Industrial Servo Drives, IEEE International Conference on Robotics and Automation, p. 5921-5926, 2014.

B) Other publications

9. Pott, A.; Bruckmann, T.: (ed.): Cable-driven Parallel Robots. Mechanisms and Machine Science 32, Springer Verlag, 2015.

C) Patents

1. Pott, A.; Meyer, C.; Puzik, A.: DE 10 2009 014 766 B4, 2012.02.09: Überlagerte Achse bei einer Vorrichtung zur Bearbeitung eines Werkstücks mit einem Werkzeug, 2009.
2. Pott, A.; Miermeister, P.; Kraus, W.: DE102012025432 B3: Roboteranordnung nach Art eines parallelen Seilroboters sowie Verfahren zum Antreiben der Roboteranordnung, 2012.

Supervised graduate students since graduation year 2011

No.	Last Name, First Name	Degree	Title of the dissertation	Duration of thesis
1	Kraus, Werner	Dr.-Ing.	Force control of cable-driven parallel robots	2011-2015

2	Schmidt, Valentin	Dr.-Ing.	Process Reliability and Accuracy of Cable-Driven Parallel Robots	2011-
3	Miermeister, Philipp	Dr.-Ing.	Modelling and system identification of cable-driven parallel robots	2012-
4	Spenrath, Felix	Dr.-Ing.	Effiziente situationsabhängige Greifplanung für industrielle Zuführsysteme basierend auf Punktwolken	2012-
5	Mönnig, Manuel	Dr.-Ing.	Selbstoptimierende Parametrierung von Griff-in-die-Kiste-Systemen durch Simulation	2013-
6	Teschner, Marc	Dr.-Ing.	TBD	2013-
7	Tempel, Philipp	Dr.-Ing.	Improved modeling of cables for kinematics and dynamics of light-weight robots	2013-
8	Stelzer, Patrick	Dr.-Ing.	Modellbildung und Regelungsentwurf für körpergetragene Roboter im industriellen Einsatz	2014-
9	Apprich, Stefanie	Dr.-Ing.	Modellierung und Identifikation des posenabhängigen dynamischen Strukturverhaltens großer Werkzeugmaschinen mit serieller, werkzeugseitiger Bewegung für aktive Schwingungsreduktionsmaßnahmen	2013-
10	Schenk, Christian	Dr.-Ing.	Modelling and Control of a Cable-driven Parallel Robots	2016-

Most important research grants since 2011

No.	Research Project	Funding Period	Name(s) of the principal investigator(s)	Funding source and reference number
1	BRICS – Best practise in Robotics	2009-2013	Pott, A.	EU ICT No. 231940
2	CableBOT	2011-2014	Pott, A.	EU FoF No 285404
3	ATLAS	2011 - 2014	Pott, A.	Fraunhofer Gesellschaft WISA No. 823 244
4	Improved modeling of cables for kinematics and dynamics of light-weight robots	2013-2016	Pott, A.	DFG, SRC SimTech PN3-7
5	CloudArc	2016-2018	Pott, A.	Landesstiftung Baden-Würtemberg