

Publications

- Lehmann, C.; Städter, J. P.: Introducing Sensitive Compliant Robots for Assembly Operations in a Medium-Sized Company, In: 2nd International Workshop on Robotics Technology Transfer: Innovation from Academia to Industry, IEEE International Conference on Emerging Technologies & Factory Automation (ETFA), Berlin, Sept. 6-9, Berlin, Germany, 2016. ISBN 978-1-5090-1314-2
- Lehmann, C.; Le, D. T.: Fault propagation and graph-based path generation for skill-based robot programming, In: Proc. Of 47th Symposium on Robotics – ISR 2016, pp. 342-349, June 21-22, Munich, Germany, 2016.
- Lehmann, C.; Städter, J. P., Wächter, K.: A variant-flexible assembly cell for hydraulic valve sections using a sensitive lightweight robot, In Proc. Of 47th Symposium on Robotics – ISR 2016, pp. 645-65, June 21-22, Munich, Germany, 2016.
- Lehmann, C.: Utilization of Sensitive Compliant Lightweight Robot Arms for Hydraulic Valve Assembly, In: Fluid Power Journal, Vol. 23, pp. 40-41, Issue 1, Jan. 2016.
- Lehmann, C.: Entwicklung eines fehlertoleranten interaktiven Programmier- und Bedienkonzeptes für wandlungsfähige Industrieroboterzellen, Diss., ISBN-Nr. 978-3-8440-4096-8, <http://dx.doi.org/10.2370/9783844040968>, Shaker Verlag Aachen, 2015.
- Berger, U.; Le, D.T.; Zou, W.; Lehmann, C.; Städter, J.P.; Ampatzopoulos, A.: Development of a mobile robot system for assembly task on continuous conveyor, In: In-Tech 2015, Dubrovnik, Croatia, pp. 331-334, ISSN 1849-0662, 9-11 September 2015.
- Vogel-Heuser, B.; Schütz, D.; Schöler, T.; Jeschke, S.; Ewert, D.; Niggemann, O.; Windmann, S.; Berger, U.; Lehmann, C.: Agentenbasierte Cyber-Physische Produktionssysteme, Anwendungen für die Industrie 4.0, atp Edition 57(9), pp. 36-45, Sept. 2015.
- Lehmann, C.; Städter, J. P.; Berger, U.: Anwendungsbeispiele zur Integration heterogener Steuerungssysteme bei robotergestützten Industrieanlagen, In: Handbuch Industrie 4.0, 2016. (in print)
- Lehmann, C.; Berger, U.: Fehlertolerantes Programmier- und Bedienkonzept für wandlungsfähige Industrieroboterzellen, In: Automation 2015, Baden-Baden, pp. 423-434, ISBN 978-3-18-092258-4, 11-12 Juni 2015.
- Lehmann, C.; Städter, J. P.; Berger, U.; Mariani, G.; Cigarini, M.; Armento, A.: Inline-Qualitätsprüfung für Montageprozesse mittels impedanzgeregeltem Leichtbauroboter, In: Automation 2015, Baden-Baden, pp. 1035-1044, ISBN 978-3-18-092258-4, 11-12 Juni 2015.
- Zou, W.; Le, D. T.; Lehmann, C.; Berger, U.: Synchronisation von mobilen Robotern zu einer kontinuierlichen Fließfertigung für Montageaufgaben, In: Automation 2015, Baden-Baden, pp. 465-475, ISBN 978-3-18-092258-4, 11-12 Juni 2015.
- Schneider, U.; Drust, M.; Ansaloni, M; Lehmann, C.; Pellicciari, M.; Leali, F.; Gunnink, J. W.; Verl, A.: Improving robotic machining accuracy through experimental error investigation and modular compensation – In: International Journal of Advanced Manufacturing Technology, Juni 2014, ISSN 0268-3768, <http://dx.doi.org/10.1007/s00170-014-6021-2>, Springer Verlag London.
- Haage, M.; Halbauer, M.; Lehmann, C.; Städter, J.P.: Increasing Robotic Machining Accuracy Using Offline Compensation Based on Joint-Motion Simulation – In: ISR/ Robotik 2014, Joint conference of the 45th International Symposium on Robotics (ISR 2014) and the 8th German

Conference on Robotics (ROBOTIK 2014), pp. 347-354, ISBN 978-3-8007-3601-0, Munich, Germany, June 2-4, 2014, VDE-Verlag Berlin Offenbach.

- Städter, J.P.; Lehmann, C.; Halbauer, M.; Berger, U.; Gnorski, H.; Schulze, T.: Automatisierte robotergestützte Gefahrgutverladung im explosionsgeschützten Outdoorbereich – Technische Sicherheit, pp. 40-46, Mai 2014, ISSN 2191-0073, Springer-VDI-Verlag, Düsseldorf.
- Lehmann, C.; Städter, J. P.; Berger, U.; Keller, S.; Gnorski, H.: Semi-automated Handling of Manhole Covers for Tank Wagon Processing Using Industrial Robots – In: Robotic Assistance Technologies in Industrial Settings, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Nov. 3-8, Tokyo, Japan. http://lasa.epfl.ch/workshop_ratis/
- Halbauer, M., Lehmann, C., Städter, J. P., Berger, U., Leali, F.: Milling strategies optimized for industrial robots to machine hard materials, In: Proc. of the 18th IEEE International Conference on Emerging Technologies & Factory Automation (ETF A2013), 10-13 Sept. 2013, Cagliari, Italy.
- Lehmann, C.; Pellicciari, M.; Drust, M.; Gunnink, J.W.: Machining with industrial robots: the COMET project approach. In: *Robotics in Smart Manufacturing. Communications in Computer and Information Science* (Eds.: Neto, P. and Moreira, A.P.), Vol. 371, pp 27-36, ISBN 978-3-642-39222-1, Springer Berlin Heidelberg, 2013.
- Lehmann C.; Olofsson, B.; Nilsson, K.; Halbauer, M.; Haage, M.; Robertsson, A.; Sörnmo, O.; Berger, U.: Robot Joint Modeling and Parameter Identification Using the Clamping Method – In: *Proc. of IFAC Conference on Manufacturing Modelling, Management and Control (MIM)*, St. Petersburg, Russia, June 19th-21st 2013.
- Lehmann, C.; Halbauer, M.; Zwaag, J.; Schneider, U.; Berger, U.: Offline Path Compensation to Improve Accuracy of Industrial Robots for Machining Applications. In: *VDI-Bericht 2209*, VDI Verlag GmbH, Düsseldorf, pp. 147-152, ISBN 978-3-18-092209-6, ISSN 0083.5560.
- Halbauer, M.; Lehmann, C.; Städter, J.P.; Berger, U.: Servicerobotik zum Handhaben biegeschlaffer Teile mittels Tiefenbildsensor. In: *VDI-Bericht 2209*, VDI Verlag GmbH, Düsseldorf, pp. 113-116, ISBN 978-3-18-092209-6; ISSN 0083.5560.
- Lehmann, C.; Halbauer, M.; Euhus, D.; Overbeck, D.: Milling with industrial robots: Strategies to reduce and compensate process force induced accuracy influences. In: *Proceedings of the 17th IEEE International Conference on Emerging Technologies & Factory Automation (ETF A2012)*, pp. 1-4, ISBN 978-1-4673-4735-8, Sept. 17th-21st 2012, Kraków, Poland.
- Minhas, S. H.; Lehmann, C.; Städter, J. P.; Berger, U.: Reconfigurable Strategies for Manufacturing Setups to confront Mass Customization Challenges. In: *Proceedings of the 21st International Conference on Production Research (ICPR 21)*, July 31 – August 4th 2011, Stuttgart, Germany.
- Minhas, S. H.; Lehmann, C.; Berger U.: Concept and Development of Intelligent Production Control to enable Versatile Production in the Automotive Factories of the Future. In: *Proceedings of the 18th International Conference on Life Cycle Engineering (CIRP LCE 2011)*, May 2nd-4th 2011, Braunschweig, Germany.

Invited talks

- *I benefici emersi dall'uso di robot sensibili e gli ostacoli incontrati per la loro implementazione in produzione* (Benefits of using sensitive robots and obstacles for their implementation in production). In: Collaborative Robots Workshop (Robotica Collaborativa: stato dell'arte, applicazioni reali e sviluppi futuri), 15 Sept. 2016, Bologna, Italy.
- Modularity and standardisation: Experiences from the COMET-Project. In: *MISRS 2015 - ERF Workshop on Hardware and software modularity and interoperability in service robotics: Towards standardization, European Robotics Forum*, 11-13 March 2015, Vienna, Austria.
- Can Industrial Robot be Used in the Manufacturing Industry for Machining Operations? At: *Robots in the Machining World - Workshop within the HEPHESTOS EC-FP7 Project*, April 5th 2013, Fraunhofer IPK, Berlin, Germany.

Conference attendance

- 2017 European Robotics Forum, Edinburgh, Scotland, UK, Mar 22-24.
- 2016 IEEE International Conference on Emerging Technologies & Factory Automation, Berlin, Germany, Sep 06-09.
- 2016 ISR Int. Symposium on Robotic, Munich, Germany, June 21-22.
- 2015 Automation 2015, Baden-Baden, Germany, June 11-12.
- 2015 European Robotics Forum, Vienna, Austria, Mar 11-13.
- 2014 European Robotics Forum, Rovereto, Italy, Mar 12-14.
- 2013 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Tokyo, Japan, Nov 3-8.
- 2013 IFAC Conference on Manufacturing Modelling, Management and Control, Saint Petersburg, Russia, June 19-21.
- 2013 European Robotics Forum, Lyon, France, Mar 19-21.
- 2012 IEEE International Conference on Emerging Technologies & Factory Automation, Kraków, Poland, Sep 17-21.
- 2012 ROBOTIK - 7th German Conference on Robotics, Munich, Germany, May 22-25.
- 2011 International Conference on Production Research (ICPR), Stuttgart, Germany, July 31-Aug 4.