

Publikationen

Dissertation:

Arbeiter, Georg: 3-D-Umgebungserfassung für teil-autonome mobile Roboter. University of Stuttgart, 2014, ISBN 978-3-8396-0674-2

Conference Papers (peer reviewed):

Milz, Stefan ; Arbeiter, Georg ; Witt, Christian ; Abdallah, Bassam ; Yogamani, Senthil Kumar: Visual SLAM for Automated Driving: Exploring the Applications of Deep Learning. CVPR Workshops 2018: 247-257

Arbeiter, Georg ; Fuchs, Steffen ; Hampp, Joshua ; Bormann, Richard: Efficient segmentation and surface classification of range images, 2014 IEEE International Conference on Robotics and Automation (ICRA), Hong Kong, 2014, pp. 5502-5509.
doi: 10.1109/ICRA.2014.6907668

Arbeiter, Georg ; Fuchs, Steffen ; Bormann, Richard ; Fischer, Jan ; Verl, Alexander: Evaluation of 3D Feature Descriptors for Classification of Surface Geometries in Point Clouds. In: Almeida, Anibal T. de (General Chair) ; Nunes, Urbano (General Chair) ; Institute of Electrical and Electronics Engineers: IROS 2012 - Conference Proceedings : Celebrating 25 Years of IROS; IEEE/RSJ International Conference on Intelligent Robots and Systems, Vilamoura, Portugal, 7th-12th of October 2012. Piscataway, NJ, 2012, S. 1644-1650. - URN urn:nbn:de:0011-n-2252907

Qiu, Renxi ; Ji, Ze ; Noyvirt, Alexandre ; Soroka, Anthony ; Setchi, Rossi ; Pham, Duc Truong ; Xu, Shuo ; Shivarov, Naiden ; Pigini, Lucia ; Arbeiter, Georg ; Weisshardt, Florian ; Graf, Birgit ; Mast, Marcus ; Blasi, Lorenzo ; Facal, David ; Rooker, Martijn ; Lopez, Rafa ; Li, Dayou ; Liu, Beisheng ; Kronreif, Gernot ; Smrz, Pavel: Towards Robust Personal Assistant Robots: Experience Gained in the SRS Project. In: Almeida, Anibal T. de (General Chair) ; Nunes, Urbano (General Chair) ; Institute of Electrical and Electronics Engineers: IROS 2012 - Conference Proceedings : Celebrating 25 Years of IROS; IEEE/RSJ International Conference on Intelligent Robots and Systems, Vilamoura, Portugal, 7th-12th of October 2012. Piscataway, NJ, 2012, S. 1651-1657.

Arbeiter, Georg ; Bormann, Richard ; Fischer, Jan ; Hägele, Martin ; Verl, Alexander: Towards Geometric Mapping for Semi-autonomous Mobile Robots. In: Stachniss, Cyrill (Ed.) : Spatial Cognition VIII : International Conference, Seeon, Germany, August 31- September 3, 2012; Proceedings. Berlin; Heidelberg : Springer, 2012, S. 114-127. (Lecture Notes in Artificial Intelligence 7463).- URN urn:nbn:de:0011-n-2250525

Bormann, Richard ; Fischer, Jan ; Arbeiter, Georg ; Verl, Alexander: Efficient Object Categorization with the Surface-Approximation Polynomials Descriptor. In: Stachniss, Cyrill (Ed.) : Spatial Cognition VIII : International Conference, Seeon, Germany, August 31- September 3, 2012; Proceedings. Berlin; Heidelberg : Springer, 2012, S. 34-53. (Lecture Notes in Artificial Intelligence 7463).

Bormann, Richard ; Fischer, Jan ; Arbeiter, Georg ; Verl, Alexander: Adding Rotational Robustness to the Surface-Approximation Polynomials Descriptor. In: Iwata, Hiroyasu (Ed.) ; Asada, Minoru (General Chair) ; IEEE / Robotics and Automation Society: Humanoids 2012 : 12th International IEEE-RAS International Conference on Humanoid Robots; November 29-December 1, 2012, Osaka, Japan; Humanoids and Humans: Towards A New Frontier. Piscataway, NJ, 2012, S. 409-416.

Arbeiter, Georg ; Hägele, Martin ; Verl, Alexander: Field of view dependent registration of point clouds and incremental extraction of table-tops using time-of-flight cameras : held at the ICRA Workshop: Semantic Perception, Mapping and Exploration (SPME). In: IEEE / Robotics and Automation Society: 2011 IEEE International Conference on Robotics and Automation ICRA : Better Robots, Better Life. May 9-13, 2011, Shanghai, China. Piscataway, NJ, USA : IEEE Press, 2011, 6 S. - URN urn:nbn:de:0011-n-1833077

Fischer, Jan ; Arbeiter, Georg ; Verl, Alexander: Combination of Time-of-Flight Depth and Stereo using Semiglobal Optimization. In: IEEE / Robotics and Automation Society: 2011 IEEE International Conference on Robotics and Automation ICRA : Better Robots, Better Life. May 9-13, 2011, Shanghai, China. Piscataway, NJ, USA : IEEE Press, 2011, S. 3548-3553. - URN urn:nbn:de:0011-n-1901013

Arbeiter, Georg ; Fischer, Jan ; Verl, Alexander: 3-D-Environment Reconstruction for Mobile Robots using fast- SLAM and Feature Extraction. In: Neumann, Kristin (Ed.) ; Schraft, Rolf Dieter (Chairman) ; Berns, Karsten (Chairman) ; International Federation of Robotics: Joint International Conference of ISR/ROBOTIK2010 : Munich, 7-9 June 2010. Berlin; Offenbach : VDE Verlag, 2010, S. 291-295. - URN urn:nbn:de:0011-n-1414940

Journal Papers, Buchkapitel:

Mast, Marcus ; Materna, Zdenek ; Spänel, Michal ; Weisshardt, Florian ; Arbeiter, Georg ; Burmester, Michael ; Smrz, Pavel ; Graf, Birgit: Semi-Autonomous Domestic Service Robots: Evaluation of a User Interface for Remote Manipulation and Navigation With Focus on Effects of Stereoscopic Display. I. J. Social Robotics 7(2): 183-202 (2015)

Reiser, Ulrich ; Jacobs, Theo ; Arbeiter, Georg ; Parlitz, Christopher ; Dautenhahn, Kerstin: Care-O-bot® 3 - Vision of a Robot Butler. In: Trappl, Robert (Ed.): Your Virtual Butler : The Making-of. Berlin; Heidelberg : Springer, 2013, S. 97-116. (Lecture Notes in Artificial Intelligence 7407).- DOI 10.1007/978-3-642-37346-6_9

Mast, Marcus ; Burmester, Michael ; Krüger, Katja ; Fatikow, Sascha ; Arbeiter, Georg ; Graf, Birgit ; Kronreif, Gernot ; Pignini, Lucia ; Facal, David ; Qiu, Renxi: User-Centered Design of a Dynamic-Autonomy Remote Interaction Concept for Manipulation-Capable Robots to Assist Elderly People in the Home. In: Journal of Human-Robot Interaction. 1 (2012), Nr. 1, S. 96-118. - DOI 10.5898/JHRI.1.1.Mast

Weitere Veröffentlichungen:

Arbeiter, Georg: 3-D Environment Reconstruction Using Time-of-Flight Cameras On Mobile Service Robots. In: PMD Technologies: PMD[vision]® Day Vol. 3 - See what's possible! : November 18, 2010, Munich. Siegen, 2010, 27 Folien. - URN urn:nbn:de:0011-n-1539131

Arbeiter, Georg ; Fischer, Jan ; Verl, Alexander: 3D Perception and Modeling for Manipulation on Care-O-bot® 3. In: IEEE / Robotics and Automation Society: 2010 IEEE International Conference on Robotics and Automation (ICRA 2010) : Conference Digest. Anchorage, Alaska, USA, May 3-8, 2010. Piscataway, NJ, USA : IEEE Press, 2010, 5 S.

Arbeiter, Georg ; Bubeck, Alexander ; Fischer, Jan ; Graf, Birgit: Teleoperierte mobile Roboter warten Prozessanlagen : Niedrigere Betriebskosten und höhere Arbeitssicherheit. In: atp-edition. 52 (2010), Nr. 5, S. 44-51. - URN urn:nbn:de:0011-n-1416067

Arbeiter, Georg ; Bubeck, Alexander ; Fischer, Jan ; Graf, Birgit: Teilautonome mobile Roboter zur Fernwartung prozesstechnischer Anlagen. In: Bender, Klaus (Hrsg.) ; Schumacher, Walter (Hrsg.) ; Verl, Alexander (Hrsg.) ; Höpf, Michael (Chairman) ; Mesago: SPS/IPC/DRIVES 2009 : Tagungsband. Elektrische Automatisierung - Systeme und Komponenten. Fachmesse und Kongress, 24.-26. Nov. 2009, Nürnberg. Berlin; Offenbach : VDE Verlag, 2009, S. 173-181.

Connette, Christian ; Arbeiter, Georg ; Meßmer, Felix ; Hägele, Martin ; Verl, Alexander ; Notheis, Simon ; Mende, Michael ; Hein, Björn ; Wörn, Heinz: Efficient Monitoring of Process Plants by Telepresence and Attention Guidance. In: Berns, Karsten (Chair) ; Verl, Alexander (Vice Chair) ; Hägele, Martin (Session Chair) ; Deutsche Gesellschaft für Robotik: ROBOTIK 2012 - 7th German Conference on Robotics : Proceedings, 21-22 May 2012, Munich in Conjunction with Automatica 2012. Berlin; Offenbach : VDE Verlag, 2012, S. 269-272.

Fischer, Jan ; Arbeiter, Georg ; Bormann, Richard ; Verl, Alexander: A framework for object training and 6 DoF pose estimation. In: Berns, Karsten (Chair) ; Verl, Alexander (Vice Chair) ; Hägele, Martin (Session Chair) ; Deutsche Gesellschaft für Robotik: ROBOTIK 2012 - 7th German Conference on Robotics : Proceedings, 21-22 May 2012, Munich in Conjunction with Automatica 2012. Berlin; Offenbach : VDE Verlag, 2012, S. 513-518.

Bormann, Richard ; Fischer, Jan ; Arbeiter, Georg ; Weisshardt, Florian ; Verl, Alexander: A Visual Dirt Detection System for Mobile Service Robots. In: Berns, Karsten (Chair) ; Verl, Alexander (Vice Chair) ; Hägele, Martin (Session Chair) ; Deutsche Gesellschaft für Robotik: ROBOTIK 2012 - 7th German Conference on Robotics : Proceedings, 21-22 May 2012, Munich in Conjunction with Automatica 2012. Berlin; Offenbach : VDE Verlag, 2012, S. 129-134.