Curriculum Vitae

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DI. Dr. techn. Clemens Arth

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Personal Data

Born	November 22, 1979, Fuerstenfeld, Austria
Citizenship	Austria
Marital status	Married, one child
Driver License	A,B,C,E

Education

05/2014	TUG Seminar "Businessplanning"
02/2014	TUG Seminar "Leadership"
01/2014	TUG Seminar "Time Management"
09/2013	Civil Engineering Course and Application Exam
02/2012	TUG Seminar "Financial Management of Funded Research Projects"
12/2012	TUG Seminar "Patents"

11/2012	TUG Seminar "Research Funding by Local Agencies"
02/2008	Promotion (Dr. techn.)
2005 - 03/2008	Graz University of Technology , Engineering Sciences (Doctoral study), Institute for Computer Graphics and Vision , Thesis title: *Visual Surveillance on DSP-Based Embedded Platforms*, Thesis supervisor: Prof. Dr. Horst Bischof.
2003 - 09/2004	Graz University of Technology , Telematics (Master study), Institute for Computer Graphics and Vision , Thesis title: *Vehicle Classification using the ADA-Boost algorithm*, Thesis supervisor: Prof. Dr. Horst Bischof, with distinction.
1998 - 2003	Graz University of Technology , Telematics (Bachelor study).
1989 - 1997	BG/BRG Fuerstenfeld (high school).
1985 - 1989	Volksschule (primary school).

Employment

1/2023 - current	Institute for Computer Graphics and Vision at Graz University of Technology, Project Manager and Senior Scientist, Industrial/EU Project
11/2015 - 07/2022	CEO of AR4 GmbH, Graz
11/2015 - 12/2022	Institute for Computer Graphics and Vision at Graz University of Technology as Deputy Director of the Christian Doppler Laboratory for Semantic Computer Vision (in cooperation with QUALCOMM Inc.)
06/2014 - 10/2015	Institute for Computer Graphics and Vision at Graz University of Technology as Deputy Director of the Christian Doppler Laboratory for Handheld Augmented Reality (in cooperation with QUALCOMM Inc.)
10/2008 - 05/2014	Institute for Computer Graphics and Vision at Graz University of Technology as Senior Researcher in the Christian Doppler Laboratory for Handheld Augmented Reality (in cooperation with QUALCOMM Inc.)
04/2008 - 10/2008	Institute for Computer Graphics and Vision at Graz University of Technology as research assistent in the field of Augmented Reality (in cooperation with IMAGINATION GmbH)
07/2007 - 03/2008	engineering as freelancer by ZYDACRON GmbH
01/2005 - 03/2008	Institute for Computer Graphics and Vision at Graz University of Technology (computer science, PhD thesis)
10/2004 - 12/2004	engineering as freelancer by FREQUENTIS GmbH
1999 - 2003	engineering as freelancer by Messphysik GmbH. Altenmarkt/Fuerstenfeld, Material Testings

10/1997 - 09/1998	military service (officer-in-training)

Military Career

11/2011	military driver license (B and C)
11/2007	promotion to "Oberleutnant" (equiv. lieutenant first class)
04/2004	promotion to "Leutnant" (equiv. lieutenant)
07/2002 - 02/2004	participation in several seminars, courses and exercises
10/1998	promotion to "Wachtmeister" (equiv. sergeant)
10/1997 - 09/1998	officer-in-training (Leibnitz), ammunition and fuels supply (HVS Wien)

Languages

German	native
English	fluently

Talks, Presentations and Workshops at International Conferences

2015-2021	Pitching AR4 on a monthly basis in US and Europe
2015	International Symposium on Mixed and Augmented Reality (ISMAR), Fukuoka, Japan
2012	International Conference on Pattern Recognition (ICPR), Tsukuba, Japan
	Asian Conference on Computer Vision (ACCV), Daejeon, Korea
2011	International Symposium on Mixed and Augmented Reality (ISMAR), Basel, Schweiz
2010	International Symposium on Mixed and Augmented Reality (ISMAR), Seoul, Korea
2009	International Symposium on Mixed and Augmented Reality (ISMAR), Orlando, USA
2007	IEEE International Conference on Distributed Smart Cameras (ICDSC), Vienna, Austria
2006	2nd Workshop on Embedded Computer Vision , IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), New York, USA

Awards

Inventor Awards	Graz University of Technology 2017, 2019, 2021, 2023
Best-Demo-Award	IEEE Int. Symposium on Mixed and Augmented Reality, 2021, Bari, Italy
Best-Paper-Award	MICCAI workshop, 2020, online
Born Global Champions Award	WKO Vienna, Austria, 2017
Best-Paper-Award	IEEE Int. Symposium on Mixed and Augmented Reality, 2015, Fukuoka, Japan
Best-Paper-Award	3. Workshop on Embedded Computer Vision , IEEE International Conference on Computer Vision and Pattern Recognition, Minneapolis, USA, 2007
Best-Paper-Award	12. Computer Vision Winter Workshop (CVWW07), Feb. 2007
BMVIT 2006	Best Diploma Thesis and PhD Thesis Awards

Prior Venue Organization and Reviewing Work (excerpt only)

Organizer	Global-Scale Localization in Outdoor Environments for AR, Fukuoka, Japan, September 29, 2015
Organizer	Taking AR to the next level" - CDL Workshop on Tracking Technology for AR, Graz, Austria, September 15-17, 2014
Organizer	Workshop on AR Supermodels, ISMAR 2011, Seoul, Korea
Reviewer	IEEE Virtual Reality Conference (since 2013)
Reviewer	Transactions on Visualization and Computer Graphics (since 2012)
Reviewer	Int. Conference on Advances in Computer Entertainment Technology (ACE) (since 2011)
Reviewer	International Symposium on Mixed and Augmented Reality (ISMAR) (since 2009)
Reviewer	Symposium on Virtual Reality Software and Technology (VRST) (since 2012)
Reviewer	IEEE Pervasive Computing (since 2011)
Reviewer	Journal on Virtual Reality (VR) (since 2012)
Reviewer	Springer Real-Time Image Processing Journal (since 2013)
Reviewer	Elsevier Pattern Recognition Journal (since 2013)
Reviewer	Int. Conference on Pattern Recognition (ICPR) (since 2012)

Reviewer	Intelligent Solutions in Embedded Systems (WISES) (since 2012)
Reviewer	Computers and Graphics (since 2012)
Reviewer	Springer International Journal of Machine Learning and Cybernetics (since 2011)
Reviewer	Transactions of Intelligent Transport Systems (since 2008)

Patent Applications

US Patent App.	Method for Determining a Position and/or Orientation of a Measuring Device
20230358536-A1	Gloor Thomas, Arth Clemens, Reyes Aviles Fernando
US Patent App.	Method for Registering a Total Station in the Reference System of a CAD Model
20210381830-A1	Gloor Thomas, Arth Clemens, Reyes Aviles Fernando
US Patent App.	Keypoint-based sampling for pose estimation
11804040-B2	Shreyas Hampali, Clemens Arth, Vincent Lepetit
US Patent	Scene Structure based self-pose estimation
8,965,057	Clemens Arth, Gerhard Reitmayr, Dieter Schmalstieg, QUALCOMM Inc., San Diego, USA
US Patent	Sensor Based Camera Motion Det. for Unconstrained SLAM
9,390,344	Christian Pirchheim, Clemens Arth, Dieter Schmalstieg, QUALCOMM Inc., San Diego, USA
US Patent	Predictor-Corrector based Pose Detection
9,996,936	Clemens Arth, Paul Wohlhart, Vincent Lepetit. US Patent 9,996,936. QUALCOMM Inc., San Diego, USA
US Patent	Sensor-Aided Wide-Area Localization on Mobile Devices
9,031,283	Clemens Arth, Alessandro Mulloni, Gerhard Reitmayr, Dieter Schmalstieg, QUALCOMM Inc., San Diego, USA
US Patent App.	Real-Time Self-Localization from Panoramic Images
13/417,976	Clemens Arth, Manfred Klopschitz, Gerhard Reitmayr, Dieter Schmalstieg, QUALCOMM Inc., San Diego, USA
US Patent App.	Techniques for real-time clearing and replacement of objects
61/815,594	Georg Reinisch, Clemens Arth, QUALCOMM Inc., San Diego, USA
US Patent App.	Wide-area Localization from SLAM Maps

14/139,856	Dieter Schmalstieg, Clemens Arth, Jonathan Ventura, Christian Pirchheim, Gerhard Reitmayr, QUALCOMM Inc., San Diego, USA
US Patent App.	Scalable 3D Mapping System
14/862,050	Dieter Schmalstieg, Clemens Arth, Christian Pirchheim, QUALCOMM Inc., San Diego, USA
US Patent App.	Zero-Baseline 3D Map Initialization
14/743,990	Christian Pirchheim, Jonathan Ventura, Dieter Schmalstieg, Clemens Arth, Vincent Lepetit, QUALCOMM Inc., San Diego, USA
US Patent App.	Image Processing Method, Mobile Device And Method For Generating A Video Image Database
20170236302	Clemens Arth, Philipp Fleck, Denis Kalkofen, Peter Mohr, Dieter Schmalstieg, AR4 GmbH, Austria
US Patent App.	Method For Capturing And Classifying Objects
15/840,285	Clemens Arth, *et al.*, Henkel AG & Co. KGaA, Duesseldorf, Germany
US Patent App.	Determination of treatment parameters via a geometry information item of a textile
US-11746456-B2	Clemens Arth, *et al.*, Henkel AG & Co. KGaA, Duesseldorf, Germany
US Patent App.	Method For Determining Treatment Parameters Via An Information Carrier
US-20200002874-A1	Clemens Arth, *et al.*, Henkel AG & Co. KGaA, Duesseldorf, Germany
US Patent App.	Method for the dosing of cleaning agents
US-10955823-B2	Clemens Arth, *et al.*, Henkel AG & Co. KGaA, Duesseldorf, Germany
US Patent App.	Retrofittable Sensor Unit For Controlling A Dosing Device
US-20200063323-A1	Clemens Arth, *et al.*, Henkel AG & Co. KGaA, Duesseldorf, Germany
US Patent App.	Method For Controlling Cleaning Devices
US-20200050215-A1	Clemens Arth, *et al.*, Henkel AG & Co. KGaA, Duesseldorf, Germany

Publications

[1] Fernando Reyes-Aviles, Philipp Fleck, Dieter Schmalstieg, and Clemens Arth. Bag of world anchors for instant large-scale localization. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 2023.

[2] Philipp Fleck, Fernando Reyes-Aviles, Christian Pirchheim, Clemens Arth, and Dieter Schmalstieg. Exploring tele-assistance for cyber-physical systems with maui. In Kadi Bouatouch, A. Augusto de Sousa, Manuela Chessa, Alexis Paljic, Andreas Kerren, Christophe Hurter, Giovanni Maria Farinella, Petia Radeva, and Jose Braz, editors, *Computer Vision, Imaging and Computer Graphics Theory and Applications*, pages 431–452, Cham, 2022. Springer International Publishing.

[3] Fernando Reyes-Aviles, Philipp Fleck, Dieter Schmalstieg, and Clemens Arth. Compact world anchors: Registration using parametric primitives as scene description. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, pages 1–13, 2022.

[4] Lasse Hansen, Philipp Fleck, Marco Stranner, Dieter Schmalstieg, and Clemens Arth. Augmented reality for subsurface utility engineering, revisited. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 2021.

[5] Clemens Arth. *Augmented Reality in der Industrie - Chancen und Herausforderungen*, chapter 3.3, pages 116–136. Number 1. Vienna Technical University, tagungsband zukunftsfragen baubetrieb 2021 edition, May 2021. ISBN 978-3-903311-24-4.

[6] Philipp Fleck, Dieter Schmalstieg, and Clemens Arth. Creating IoT-ready XR-WebApps with Unity3D. In *Web3D*, pages –, 2020.

[7] Philipp Fleck, Fernando Reyes-Aviles, Christian Pirchheim, Clemens Arth, and Dieter Schmalstieg. Exploring Tele-Assistance for Cyber-Physical Systems with MAUI. In *Computer Vision, Imaging and Computer Graphics – Theory and Applications*, pages –, 2020.

[8] Florian Karner, Christina Gsaxner, Antonio Pepe, Jianning Li, Philipp Fleck, Clemens Arth, Jürgen Wallner, and Jan Egger. Single-shot deep volumetric regression for mobile medical augmented reality. In Tanveer Syeda-Mahmood, Klaus Drechsler, Hayit Greenspan, Anant Madabhushi, Alexandros Karargyris, Marius George Linguraru, Cristina Oyarzun Laura, Raj Shekhar, Stefan Wesarg, Miguel Ángel González Ballester, and Marius Erdt, editors, *Multimodal Learning for Clinical Decision Support and Clinical Image-Based Procedures*, pages 64–74, Cham, 2020. Springer International Publishing.

[9] Fernando Reyes-Aviles, Philipp Fleck, Dieter Schmalstieg, and Clemens Arth. Improving rgb image consistency for depth-camerabased reconstruction through image warping. *International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision (WSCG)*, 2020.

[10] Ruyu Liu, Jianhua Zhang, Shengyong Chen, Thomas Yang, and Clemens Arth. Accurate real-time visual slam combining building models and gps for mobile robot. *Journal of Real-Time Image Processing*, 18(2):419–429, 2021.

[11] Philipp Fleck, Fernando Reyes-Aviles, Christian Pirchheim, Clemens Arth, and Dieter Schmalstieg. MAUI: Tele-Assistence for Maintenance of Cyber-Physical Systems. pages –, 2020.

[12] Mehdi Stapleton, Dieter Schmalstieg, Clemens Arth, and Thomas Gloor. Learning Effective Sparse Sampling Strategies using Deep Active Sensing. pages –, 2020.

[13] Marco Stranner, Philipp Fleck, Dieter Schmalstieg, and Clemens Arth. A high-precision localization device for outdoor augmented reality. In *Int. Symposium on Mixed and Augmented Reality (ISMAR)*, 2019.

[14] Ruyu Liu, Jianhua Zhang, Shengyong Chen, and Clemens Arth. Towards slam-based outdoor localization using poor gps and 2.5d building models. In *Int. Symposium on Mixed and Augmented Reality (ISMAR)*, 2019.

[15] Christoph Klug, Clemens Arth, Dieter Schmalstieg, and Thomas Gloor. Measurement uncertainty analysis of a robotic total station simulation. In *IECON Proc. (Industrial Electron. Conf.)*, 2018.

[16] Christoph Klug, , Dieter Schmalstieg, Thomas Gloor, and Clemens Arth. A complete workfow for automatic forward kinematics model extraction of robotic total stations using the denavit-hartenberg convention. In *IEEE Trans. Geosci. Remote Sens.*, 2018.

[17] Christoph Klug, Clemens Arth, Dieter Schmalstieg, and Thomas Gloor. Semi-automatic registration of a robotic total station and a cad model without control points. In *IECON Proc. (Industrial Electron. Conf.)*, 2018.

[18] Ana Stanescu, Philipp Fleck, Dieter Schmalstieg, and Clemens Arth. Semantic segmentation of geometric primitives in dense 3d point clouds. In *International Symposium on Mixed and Augmented Reality (ISMAR)*, 2018.

[19] Markus Höll, Markus Oberweger, Clemens Arth, and Vincent Lepetit. Efficient physics-based implementation for realistic hand-object interaction in virtual reality. 2018.

[20] Rafael Roberto, Jo ao Paulo Lima, Hideaki Uchiyama, Clemens Arth, Veronica Teichrieb, Rin ichiro Taniguchi, and Dieter Schmalstieg. Incremental Structural Modeling Based on Geometric and Statistical Analyses. In *IEEE Winter Conference on Applications of Computer Vision*, pages –, 2018.

[21] Martin Hirzer, Clemens Arth, Peter M. Roth, and Vincent Lepetit. Efficient 3d tracking in urban environments with semantic segmentation. In *British Machine Vision Conference*, pages –, 2017.

[22] Christoph Klug, Dieter Schmalstieg, and Clemens Arth. Measuring Human-made Corner structures With a Robotic Total Station using Support Points, Lines and Planes. pages –, 2017.

[23] Philipp Fleck, Clemens Arth, and Dieter Schmalstieg. Scalable Mobile Image Recognition for Real-Time Video Annotation. In *International Symposium on Mixed and Augmented Reality (ISMAR)*, pages –, 2016.

[24] Philipp Fleck, Dieter Schmalstieg, and Clemens Arth. Visionary collaborative outdoor reconstruction using slam and sfm. In *Software Engineering and Architectures for Realtime Interactive Systems (SEARIS) @ IEEE VR*, pages –, 2016.

[25] Andreas Daniel Hartl, Clemens Arth, Jens Grubert, and Dieter Schmalstieg. Efficient verification of holograms using mobile augmented reality. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 22(7):1843–1851, 2016.

[26] Clemens Arth, Christian Pirchheim, Jonathan Ventura, Dieter Schmalstieg, and Vincent Lepetit. Instant outdoor localization and SLAM initialization from 2.5d maps. *IEEE Trans. Vis. Comput. Graph.*, 21(11):1309–1318, 2015.

[27] Jonathan Ventura, Clemens Arth, and Vincent Lepetit. An Efficient Minimal Solution for Multi-Camera Motion. In *International Conference on Computer Vision (ICCV)*, page to appear, 2015.

[28] Christian Poglitsch, Clemens Arth, Dieter Schmalstieg, and Jonathan Ventura. A Particle Filter Approach to Outdoor Localization using Image-based Rendering. In *International Symposium on Mixed and Augmented Reality (ISMAR)*, pages 132–135, 2015.

[29] Philipp Fleck, Clemens Arth, Christian Pirchheim, and Dieter Schmalstieg. Tracking and Mapping with a Swarm of Heterogeneous Clients. In *International Symposium on Mixed and Augmented Reality (ISMAR)*, pages 136–139, 2015.

[30] Clemens Arth, Raphael Grasset, Lukas Gruber, Tobias Langlotz, Alessandro Mulloni, and Daniel Wagner. The History of Mobile AR. Technical Report 2015-001, Institute for Computer Graphics and Vision (ICG), Graz University of Technology, April 2015, arXiv:1505.01319 [cs.HC].

[31] Clemens Arth, Christian Pirchheim, Jonathan Ventura, and Vincent Lepetit. Global 6DOF Pose Estimation from Untextured 2D City Models, February 2015, arXiv:1503.02675 [cs.CV].

[32] Andreas Hartl, Alexander Isop, Clemens Arth, and Dieter Schmalstieg. Towards mobile recognition and verification of holograms using orthogonal sampling. In *International Workshop on Visual Recognition and Retrieval for Mixed and Augmented Reality (VRRMAR), held in conjunction with ISMAR*, page to appear, 2015.

[33] Andreas Hartl, Clemens Arth, and Dieter Schmalstieg. Real-time detection and recognition of machine-readable zones with mobile devices. In *International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISAPP)*, 2015.

[34] Andreas Hartl, Jens Grubert, Christian Reinbacher, Clemens Arth, and Dieter Schmalstieg. Mobile user interfaces for efficient verification of holograms. 2015.

[35] Andreas Hartl, Clemens Arth, and Dieter Schmalstieg. AR-based Hologram Detection on Security Documents using a Mobile Phone. In *International Symposium on Visual Computing*, 2014.

[36] Jonathan Ventura, Clemens Arth, and Vincent Lepetit. Approximated relative pose solvers for efficient camera motion estimation. In *Workshop on Computer Vision in Vehicle Technology, held in conjunction with ECCV*, 2014.

[37] Jonathan Ventura, Clemens Arth, Gerhard Reitmayr, and Dieter Schmalstieg. A minimal solution to the generalized pose-and-scale problem. In *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2014.

[38] Jonathan Ventura, Clemens Arth, Gerhard Reitmayr, and Dieter Schmalstieg. Global localization from monocular slam on a mobile phone. 2014.

[39] Georg Reinisch and Clemens Arth. Panoramic mapping on mobile phone gpus. In *Proceedings of CESCG 2013: The 17th Central European Seminar on Computer Graphics (non-peer-reviewed)*, 2013.

[40] Georg Reinisch, Clemens Arth, and Dieter Schmalstieg. Panoramic mapping on a mobile phone gpu. In *International Symposium on Mixed and Augmented Reality (ISMAR)*, 2013.

[41] Clemens Arth, Jonathan Ventura, and Dieter Schmalstieg. Geospatial management and utilization of large-scale urban visual reconstructions. In *The 4th International Conference on Computing for Geospatial Research & Application (COM.Geo 2013)*, 2013.

[42] Clemens Arth, Alessandro Mulloni, and Dieter Schmalstieg. Exploiting Sensors on Mobile Phones to Improve Wide-Area Localization. In *International Conference on Pattern Recognition (ICPR)*, 2012.

[43] Clemens Arth, Gerhard Reitmayr, and Dieter Schmalstieg. Full 6DOF Pose Estimation from Geo-Located Images. In *Asian Conference on Computer Vision (ACCV)*, 2012.

[44] Andreas Hartl, Clemens Arth, and Dieter Schmalstieg. Instant Medical Pill Recognition on Mobile Phones. In *IASTED Int. Conference on Computer Vision*, pages 188–195, 2011.

[45] Andreas Hartl, Lukas Gruber, Clemens Arth, Stefan Hauswiesner, and Dieter Schmalstieg. Rapid Reconstruction of Small Objects on Mobile Phones. In *Proceedings of the 7rd Workshop on Embedded Computer Vision , IEEE International Conference on Computer Vision and Pattern Recognition*, pages 20–27, 2011.

[46] Qi Pan, Clemens Arth, Edward Rosten, Gerhard Reitmayr, and Tom Drummond. Rapid Scene Reconstruction on Mobile Phones from Panoramic Images. In *International Symposium on Mixed and Augmented Reality (ISMAR)*, pages 55–64, Washington, DC, USA, 2011. IEEE Computer Society.

[47] Clemens Arth and Dieter Schmalstieg. Challenges of Large-Scale Augmented Reality on Smartphones. In *Workshop on Enabling Large-Scale Outdoor Mixed Reality and Augmented Reality, held in conjunction with ISMAR*, 2011.

[48] Clemens Arth, Manfred Klopschitz, Gerhard Reitmayr, and Dieter Schmalstieg. Real-Time Self-Localization from Panoramic Images on Mobile Devices. In *International Symposium on Mixed and Augmented Reality (ISMAR)*, pages 37–46, 2011.

[49] Andreas Hartl, Clemens Arth, and Dieter Schmalstieg. Instant Segmentation and Feature Extraction for Recognition of Simple Objects on Mobile Phones. In *Proceedings of the IEEE International Workshop on Mobile Vision (IWMV) , IEEE International Conference on Computer Vision and Pattern Recognition*, 2010.

[50] Clemens Arth, Daniel Wagner, Manfred Klopschitz, Arnold Irschara, and Dieter Schmalstieg. Wide Area Localization on Mobile Phones. In *International Symposium on Mixed and Augmented Reality (ISMAR)*, pages 73–82, 2009.

[51] Clemens Arth, Christian Leistner, and Horst Bischof. *Embedded Computer Vision*, chapter 4 (Using Robust Local Features on DSP-based Embedded Systems), pages (79–100). Springer, 2008.

[52] Clemens Arth and Horst Bischof. Real-Time Object Recognition using Local Features on a DSP-based Embedded System. *Journal of Real-Time Image Processing (RTIP)*, 2:233–253, 2008.

[53] Clemens Arth. *Visual Surveillance on DSP-Based Embedded Platforms*. PhD thesis, Institute for Computer Graphics and Vision, Graz Technical University, Austria, March 2008.

[54] Michael Donoser, Clemens Arth, and Horst Bischof. Detecting, Tracking and Recognizing License Plates. In *Asian Conference on Computer Vision (ACCV)*, volume II, pages 447–456, November 2007.

[55] Clemens Arth, Christian Leistner, and Horst Bischof. Object Reacquisition and Tracking in Large-Scale Smart Camera Networks. In *Proceedings of the IEEE International Conference on Distributed Smart Cameras*, September 2007.

[56] Clemens Arth, Christian Leistner, and Horst Bischof. Robust Local Features and their Application in Self-Calibration and Object Recognition on Embedded Systems. In *Proceedings of the 3rd Workshop on Embedded Computer Vision , IEEE International Conference on Computer Vision and Pattern Recognition - BEST PAPER AWARD*, June 2007.

[57] Clemens Arth, Florian Limberger, and Horst Bischof. Real-Time License Plate Recognition on an Embedded DSP-Platform. In *Proceedings of the 3rd Workshop on Embedded Computer Vision , IEEE International Conference on Computer Vision and Pattern Recognition*, June 2007.

[58] Martin Winter, Sandra Ober, Clemens Arth, and Horst Bischof. Vocabulary Tree Hypotheses and Co-Occurrences. In *Proceedings of the 12th Computer Vision Winter Workshop (CVWW'07) - BEST PAPER AWARD*, February 2007.

[59] Clemens Arth, Christian Leistner, and Horst Bischof. TRICam - An Embedded Platform For Remote Traffic Surveillance. In *Proceedings of the 2nd Workshop on Embedded Computer Vision , IEEE International Conference on Computer Vision and Pattern Recognition*, June 2006.

[60] Morgane Rouxel, Clemens Arth, and Andreas Kroepfl. Real-Time Detection on the TRICam, an Intelligent Camera DSP-based for Efficient Video Surveillance of Remote Locations. In *presented at EDERS (European DSP Education and Research Symposium), Texas Instruments*, April 2006.

[61] Clemens Arth. Vehicle Classification using the ADA-Boost Algorithm. Master's thesis, Graz University of Technology, 2004.