### **Personal Information**

Name: Dipl.-Ing. Dr. techn. Roman Peter Pflugfelder

Date of birth: 18 July 1974 Place of birth: Vienna Citizenship: Austria

Marital status: married, one child

Webpage: <a href="https://cvl.tuwien.ac.at/staff/roman-pflugfelder/">https://cvl.tuwien.ac.at/staff/roman-pflugfelder/</a>

## **Professional Experience**

Research Associate, TU Munich, Faculty for Informatics, Chair of Computer Vision & Ar-

tificial Intelligence, Dynamic Vision and Learning Group

01/01/2022 - present

Fellow, Technion, Computer Science Department, Michael Lindenbaum's Group

01/01/2022 - present

Scientist, AIT Austrian Institute of Technology, Center for Digital Safety and Security

01/04/2007 - present

Lecturer, TU Wien, Faculty of Informatics, Inst. of Visual Computing & Human-Centered Technology

01/09/2014 - 29/02/2016

Teaching Assistant, TU Wien, Faculty of Informatics, Inst. of Visual Computing & Human-Centered Technology

01/10/1998 - 31/01/200001/10/2001 - 31/01/2002

01/10/2002 - 31/07/2008

Junior Scientist, ARC Seibersdorf research, Video & Safety Technology

01/04/2002 - 30/06/2003

01/10/2003 - 31/03/2007

<u>Research Assistant</u>, TU Wien, Faculty of Informatics, Inst. of Visual Computing & Human-Centered Technology 08/04/2002 - 30/09/2003

Freelancer, Austrian Research Centers, Video & Safety Technology

30/08/1999 - 30/09/1999 01/02/2000 - 30/06/2000

Trainee, Siemens (Nixdorf) Austria

1991

1994 - 1998

### **Education**

01/10/2003 - 30/05/2008

**Doctorate studies in Technical Sciences** with distinction, Technical University Graz

01/10/1994 - 11/03/2002

<u>Diploma studies in Informatics</u> with distinction (GPA 3.74/4), Technical University Vienna, THE'20 Rank 76 for computer science

01/10/1993 - 31/05/1994

Military Service Starhemberg Casern, Clerk (Battalion), rank: Private

01/09/1988 - 30/06/1993

High school diploma in Business Informatics with distinction (GPA 3.81/4), Technical Secondary School HTL

Donaustadt, Vienna

01/09/1984 - 30/06/1988

**Gymnasium** BRG 4 Waltergasse, Vienna

## Citation Indices According to Google scholar (08/04/2022)

Total citations: 4501 i-10 index: 34 h-index: 19

## **Highlights**

- 1. 23 year's experience in motion analysis and tracking, recognition, multi-view geometry
- 2. <u>Led research projects</u> where we studied object tracking and camera calibration; <u>applied scientific results to commercial products</u> in video surveillance, indoor navigation and robotics (see Section 9)
- 3. Camera calibration with **non-overlapping fields of view**
- 4. Had 2012 the idea to organise the Visual Object Tracking Challenge and Workshop (VOT) series
- 5. Work on object tracking using redundant representations such as **consensus (clustering) among object parts**
- 6. Work on fragmented occlusion in object detection/tracking
- 7. Work on remote vehicle detection using satellite video



## Language Skills

German (native), English (fluent)

#### **Technical Skills**

Matlab (15+ years), C/C++ (25+ years), Latex (15+ years), Julia, Flux, Python, pyTorch

### **Professional Training**

- Angebotslegung, Präsentationsschmiede, Mag. Christoph Polka, 2021
- Communication & Conflict Managment, BrainGrow, D. Hinner-Hofstätter, 2019
- Strategic Selling for Scientists, Andrew Gallacher, 2019
- Moderationstraining, Knotek Training, Christine Knotek, 2018
- Feedback Skills, BrainGrow, Dagmar Hinner-Hofstätter, 2017
- IPMA Level D, zJPM certification, 2017
- Projectmanagement, Primas Consulting, Andreas Goldschmid, 2016
- Mentaltraining für Führungskräfte (management training), Prof. Karl Stifter, 2014
- Strategic Selling and Analysis, Bernhard Knapp Organisationsberatung, 2012
- WWTF-Patentworkshop, 2010
- How to write a competitive proposal for EU FP7, Hyperion, Sean McCarthy, 2009
- Strategisches Management in der Praxis, Austrian Industries, Georg Turnheim, 1991

# 1. Publication Highlights in the past 11 Years

(Citations as provided by Google Scholar)

- 1. **R. Pflugfelder**, J. Auer: Person Localisation under Fragmented Occlusion, The 17th IEEE International Conference on Advanced Video and Signal-based Surveillance (AVSS) 2021
- 2. **R. Pflugfelder**, A. Weissenfeld, J. Wagner: On Learning Vehicle Detection in Satellite Video, Computer Vision Winter Workshop 2020 (9 citations)
- 3. M. Kristan, J. Matas, A. Leonardis, T. Vojir, **R. Pflugfelder**, G. Fernandez, G. Nebehay, F. Porikli, L. Cehovin: A Novel Performance Evaluation Methodology for Single-Target Trackers, in IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 38, no. 11, pp. 2137-2155, 1 Nov. 2016 (502 citations, IF 16.389)
- 4. B. Rinner, L. Esterle, J. Simonjan, G. Nebehay, **R. Pflugfelder**, P. Lewis, G. Fernandez: Self-Aware and Self-Expressive Camera Networks, in IEEE Computer, vol. 48, no. 7, pp. 21-28, July 2015 (39 citations, IF 3.564)
- 5. G. Nebehay, <u>R. Pflugfelder</u>, Clustering of static-adaptive correspondences for deformable object tracking, 2015 IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Boston, MA, 2015, pp. 2784-2791 (209 citations)
- 6. G. Nebehay, **R. Pflugfelder**, Consensus-based matching and tracking of keypoints for object tracking, IEEE Winter Conference on Applications of Computer Vision, Steamboat Springs, CO, 2014, pp. 862-869 (207 citations, best paper award)
- 7. M. Kristan, **R. Pflugfelder**, A. Leonardis, J. Matas, F. Porikli, L. Cehovin, G. Nebehay, G. Fernandez, T. Vojir, et al. The Visual Object Tracking VOT2013 Challenge Results," 2013 IEEE International Conference on Computer Vision Workshops, Sydney, NSW, 2013, pp. 98-111 (105 citations)
- 8. G. Nebehay, W. Chibamu, P. Lewis, A. Chandra, **R. Pflugfelder**, X. Yao, Can Diversity amongst Learners Improve Online Object Tracking? In: ZH. Zhou, F. Roli, J. Littler (eds) Multiple Classifier Systems. MCS 2013. Lecture Notes in Computer Science, vol 7872. Springer, Berlin, Heidelberg (12 citations)
- 9. C. Picus, **R. Pflugfelder**, B. Micusik, "Branch and bound global optima search for tracking a single object in a network of non-overlapping cameras," 2011 IEEE International Conference on Computer Vision Workshops (ICCV Workshops), Barcelona, 2011, pp. 1825-1830 (5 citations)
- 10. B. Micusik, **R. Pflugfelder**, Localizing non-overlapping surveillance cameras under the L-Infinity norm, 2010 IEEE Computer Society Conference on Computer Vision and Pattern Recognition, San Francisco, CA, 2010, pp. 2895-2901 (12 citations)
- 11. C. Picus, B. Micusik, **R. Pflugfelder**: From Single Cameras to the Camera Network: An Auto-Calibration Framework for Surveillance. In: M. Goesele, S. Roth, A. Kuijper, B. Schiele, K. Schindler (eds) Pattern Recognition. DAGM 2010. Lecture Notes in Computer Science, vol 6376. Springer, Berlin, Heidelberg. (4 citations, oral)
- 12. **R. Pflugfelder**, H. Bischof, Localization and Trajectory Reconstruction in Surveillance Cameras with Nonoverlapping Views, in IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 32, no. 4, pp. 709-721, April 2010 (65 citations, IF 16.389)

## 2. Granted Patents

- 1. **R. Pflugfelder**, B. Micusik: Method for determining the position of cameras, EP 12791682, 2012
- 2. A. Belbachir, **R. Pflugfelder**, M. Mayerhofer: Vorrichtung zur Aufnahme von 360° Stereo Panoramabildern, DE 102011120718.3, 2011
- 3. **R. Pflugfelder**, B. Micusik: Verfahren zur Bestimmung der Position von Kameras, AT 511968, 2011
- 4. A. Belbachir, **R. Pflugfelder**, N. Brändle, C. Beleznai: Verfahren zur Detektion von Objekten, AT 507764, 2010
- 5. A. Belbachir, **R. Pflugfelder**: Method and device for taking pictures, EP 2182720, 2009
- 6. A. Belbachir, **R. Pflugfelder**: Verfahren und Vorrichtung zur Aufnahme von Bildern, AT 507543, 2008
- R. Pflugfelder, H. Bischof: Verfahren zur automatischen Ermittlung der Kalibrierung und Projektion einer Überwachungs-Kamera, AT 502356, 2005

# 3. Research Monographs and Chapters

- 1. C. Bolakis, V. Mantzana, P. Michalis, A. Vassileiou, **R. Pflugfelder** et al. FOLDOUT: A Through Foliage Surveillance System for Border Security. In: B. Akhgar, D. Kavallieros, E. Sdongos (eds) Technology Development for Security Practitioners. Security Informatics and Law Enforcement. Springer, Cham. 2021
- 2. **R. Pflugfelder**, An in-depth analysis of visual tracking with siamese neural networks, arXiv:1707.00569, 2018
- 3. L. Esterle, J. Simonjan, G. Nebehay, **R. Pflugfelder**, G.F. Domínguez, B. Rinner: Self-aware Object Tracking in Multi-Camera Networks. In: P. Lewis, M. Platzner, B. Rinner, J. Tørresen, X. Yao (eds) Self-aware Computing Systems. Natural Computing Series. Springer, 2016
- C. Picus, <u>R. Pflugfelder</u>, B. Micusik: Auto-calibration of Non-overlapping Multi-camera CCTV Systems. In: C. Shan, F. Porikli, T. Xiang, S. Gong (eds) Video Analytics for Business Intelligence. Studies in Computational Intelligence, vol 409. Springer, Berlin, Heidelberg 2012
- 5. **R. Pflugfelder**, B. Mičušík: Self-Calibrating Cameras in Video Surveillance. In: A. Belbachir (eds) Smart Cameras. Springer, Boston, 2009

### 4. Invited Presentations

(including presentations to companies, as I am working at a research technology organisation)

- The Importance of Motion Perception in Visual Recognition, IARAI, Vienna, Austria, August, 2021
- Learning Visual Perception for Autonomous Systems, Linköping University, Sweden, June, 2021
- Vehicle Detection in Satellite Video, Helmholtz AI Virtual Conference, April, 2021
- Vehicle Detection in Satellite Video, Planet Labs, Berlin, March, 2021
- Introducing Visual Object Tracking from Classical Views to Machine Learning, JKU, Institute of Computer Graphics, Linz, Austria, April, 2019
- Introducing Visual Object Tracking from Classical Views to Machine Learning, SUSTech, School of Computer Science and Engineering, Shenzhen, December, 2018
- Video Analyse und 3D Sensoren, Siemens, Vienna, Austria, April, 2018
- CAT: Calibration and Tracking, WWTF Symposium, Vienna, Austria, September, 2014
- Visual single and general object tracking: Where are we today?, Embedded CV Workshop, Boston, June, 2015
- Multi-Camera Tracking, Intel, Munich, Germany, November, 2014
- Calibrating surveillance camera networks, Heidelberger BV-Symposium, Heidelberg, Germany, July, 2012
- Camera Networks: Calibration and Localisation, Munich Airport, Germany, May, 2012
- Multiple Camera networks, Alcatel, Vienna, Austria, January, 2012
- Localising surveillance cameras, Vienna Airport, Austria, August, 2011
- Camera Calibration in video surveillance, CIR colloquium, Medical University, Vienna, Austria, January, 2011
- Bildanalyse mit vernetzten Kameras, TTZ Leoben, Leoben, Austria, October, 2010
- Localising surveillance cameras, ETH Zurich, Switzerland, October, 2010
- Localising surveillance cameras, CMP colloquium, Czech Technical University, Prague, April, 2010
- Calibration and Tracking with non-overlapping cameras, TU Wien, Austria, October, 2009
- Localising surveillance cameras, IBM, Vienna, Austria, January, 2009
- Simultaneous calibration, detection, and tracking: A current trend in Computer Vision, Smart Systems Day, Baden, Austria, October, 2008
- Plug and Detect (PnD) Auto. Kalibrierung von Überwachungskameras, Smart Systems Day, Vienna, May, 2007
- Plug and Detect Automatic calibration of distant cameras, Arsenal, July, 2007
- Localisation of distant cameras, Advanced Computer Vision Colloquium, Graz, Austria, June, 2007
- On-line auto-calibration in man-made worlds, Advanced Computer Vision Colloquium, Vienna, Sep., 2005
- Is consistent object tracking in multiple cameras with slight overlapping or even non-overlapping fields of view possible?, Smart Systems Day, Vienna, Austria, April, 2004
- Visuelle Sensoren zur Verkehrsüberwachung, Oberösterreichische Landesregierung, Linz, Austria, Sep., 2002

## 6. Organisation of international conferences, scientific activities

- <u>Co-Initiator and Co-organiser</u> of VOT Challenges and Workshop in conjunction with International Conference on Computer Vision (ICCV'13), European Conference on Computer Vision (ECCV)'14, ECCV'16, ICCV'17, ECCV'18, ICCV'19, ECCV'20, ICCV'21
- <u>Steering Committee Member</u>, International Conference on Advanced Video and Signal-based Surveillance (AVSS) since 2015
- Program Chair, AVSS'15
- **Demo Chair**, International Conference on Distributed Smart Cameras (ICDSC'14)
- <u>Co-organiser</u> of the Computer Vision in Applications Workshop in conjunction with Deutsche Arbeitsgemeinschaft für Mustererkennung conference (DAGM'12)
- Organiser of the Industrial Surveillance Day, symposium in conjunction with AVSS'11
- Industrial Chair, AVSS'11
- Local Arrangements Chair, ICDSC'2007

## 7. Participation in Industrial Innovation

- <u>Lead AIT strategic programme "Mobile Vision", 2.1 Mio. Euro</u> (2012 2016), 6.7 FTE, with TU Graz, Univ. Klagenfurt; set up and managed programme and collaboration
- Lead FFG project "Passenger Flow Monitoring for Enhancing Airport Safety and Efficiency Using a Large Network of Surveillance Cameras", 528.100 Euro (2012 2015), 5 FTE; wrote proposal and managed the project; studied with Munich airport, SLR Engineering GmbH and AIT Mobility the use of existing security cameras for passenger flow monitoring; developed and successfully field-tested a calibration method for distant security cameras allowing oblique camera views; patented the method in EU
- Organised Computer Vision in Applications Workshop in conjunction with Deutsche Arbeitsgemeinschaft für Mustererkennung conference (DAGM'12)
- Organised as AVSS Industrial Chair Industrial Surveillance Day symposium in conjunction with AVSS'11
- Acquired contract research licensing agreement with FLIR Traffcon, 578.000 Euro (2003 2013); developed contact to Traffcon

## 8. Awards and Fellowships

- 2022 Marie Curie Fellowship
- 2019 IEEE Computer Vision Pattern Recognition (CVPR) Outstanding Reviewer Award
- 2017 Certificate of Outstanding Contribution in Reviewing, The Editors of Pattern Recognition (Elsevier)
- 2016 Certificate of Reviewing, The Editors of Image and Vision Computing (Elsevier)
- 2014 Best Paper Award, IEEE Winter Conference on Applications in Computer Vision (WACV)
- 2009 OVE-GIT Prize of the Austrian Electrotechnical Association
- 2001 Best Student Prize, PRIP, TU Wien
- 2000 Kurt Gödel Scholarship

### 9. Funding

- Acquired Marie Curie Eurotech project "Deocclude" (2022 2023); fellowship holder
- Co-acquired <u>Research Promotion Agency (FFG) project "Migration Trend Analysis", 259.165 Euro</u> (2019 2020); work package leader of topic satellite image/video analysis; project manager in AIT competence unit
- Co-acquired FFG project "Aerial Search & Rescue Support and Supervision of inaccessible Terrains", 305.000 Euro (2018 2020); project manager in AIT competence unit
- Co-acquired <u>EU Secure Societies Foldout project "Through-foliage detection, including in the outermost regions of the EU", 1.8 Mio. Euro</u> (2018 2022), 19 partners; task leader of through foliage video analysis
- Co-acquired <u>EU Artemis project "EMC2 Embedded Multi-Core Cloud"</u>, 230.671 Euro (2013 2017), 101 commercial and academic partners; initiated research with TTTech's Time Triggered Architecture (TTA) for deterministic networks of cameras in cyberphysical systems
- Coordinated <u>AIT strategic programme "Mobile Vision", 2.1 Mio. Euro</u> (2012 2016), 6.7 FTE, with TU Graz, Univ. Klagenfurt; set up and managed programme and collaboration
- Acquired and coordinated FFG project "Passenger Flow Monitoring for Enhancing Airport Safety and Efficiency Using a Large Network of Surveillance Cameras", 528.100 Euro (2012 2015), 5 FTE; wrote proposal and managed the project; studied with Munich airport, SLR Engineering GmbH and AIT Mobility the use of existing security cameras for passenger flow monitoring; developed and successfully field-tested a calibration method for distant security cameras allowing oblique camera views; patented the method in EU
- <u>EU FET Proactive project "Engineering Proprioception in Computing Systems", 5 Mio. Euro</u> (2010 2014); led task; studied with Georg Nebehay parts-based and long-term tracking (CMT); best paper award at

IEEE WACV; our TLD implementation has 1.100+ forks on Github and is part of ROS; NASA, FESTO AG and Neurala Inc. exploited our work

- Acquired and coordinated Vienna Science and Technology Fund (WWTF) Career Grant "Simultaneous Calibration and Tracking: A joint optimisation approach for arbitrarily placed cameras", 492.000 Euro (2009 2012), 8.2 FTE; prestigious career grant (top 15%); studied camera calibration and object tracking jointly; formulated polynomial eigenvalue problem and developed (Matlab) several approaches based on SOCP, branch-and-bound; published at major conferences (CVPR, ICCV, DAGM) and in a Springer book; technique got awareness by Frost & Sullivan in their TI newsletter
- Acquired <u>licensing agreement with FLIR Traficon</u>, 578.000 Euro (2003 2013); developed contact to Traficon and initiated contract research
- Acquired and coordinated FFG Young Experts Ph.D. Grant "Plug & Detect: Self-calibrating and self-configuring video surveillance", 108.900 Euro (2003 2007), 4 FTE; developed (Matlab, C) calibration method for single cameras based on line segment; published work in Ph.D. thesis, IEEE TPAMI; patented the method in Austria
- Co-acquired <u>Ministry for Transport, Innovation and Technology I2 project "Video based Image analysis for Tunnel Safety", 262.680 Euro (2004)</u>; initiated the project and led task; planned experimental methodology; led tunnel experiments with Asfinag and TU Graz
- Co-acquired <u>EU FP6 project "Aircraft surroundings, categorised Vehicles and Individuals Tracking for apron's Activity model interpretation and Check" 152.022 Euro (2004 2006); established contact to project coordinator</u>

## 10. Student Supervision and Mentoring

- Jonas Auer, Robust Object Detection and Tracking under Occlusion, M.Sc. thesis, TU Vienna, 2022
- Èric Quintana Aguasca, Tracking by Detection Using Yolo and a Kalman Filter, B.Sc. thesis, UPC Barcelona, 2021 Erasmus cooperation with Xavier Giro
- Gustav Häger, Learning Visual Perception for Autonomous Systems, Opponent in his Doctoral Defense at Linköping University, June, 2021
- Caroline Magg, Deep Image Prior for Microscopy Images, Praktikum, TU Vienna, 2021
- Julian Wagner, Detecting Vehicles in Satellite Video Using Deep Networks, M.Sc. thesis, TU Vienna and Planet Labs Inc., 2020
- Manuel Danner, Semantic Segmentation of Image Sequences Using a Spatio-Temporal U-Net, M.Sc. thesis, TU Vienna and Molecular Devices LCC, 2020, now at Trayport
- Sergi Sanchez Deutsch, Siamese Networks for Visual Tracking, B.Sc. thesis, UPC Barcelona, 2019 Erasmus cooperation with Xavier Giro; now at i2CAT Foundation
- Julian Pegoraro, Junior Research Engineer at AIT, official mentor 2019
- Georg Sperl, Person Classification with Convolutional Neural Networks, M.Sc. thesis, TU Vienna, 2016; now Ph.D. student at IST Austria, Vienna
- Georg Nebehay, A Deformable Parts Model for One-Shot Object Tracking, Ph.D. thesis, TU Graz, 2016; had postdoc offer to joint Margarita Chli's group at ETH Zurich; now at Locatee AG, Zurich
- Timo Kropp, Matching Omnidirectional Images in Indoor Environments, M.Sc. thesis, TU Vienna, 2013; now at MeisterLabs
- Georg Nebehay, Robust Object Tracking Based on Tracking-Learning-Detection, M.Sc. thesis, TU Vienna, 2012
- Clemens Korner, Object Tracking Using Projective Invariants, B.Sc. thesis, TU Vienna, 2016, now at AIT
- Michael Boula, Time sync. of networked cameras with non-overlapping views using TTA, BSc. thesis, TU Vienna, 2011
- Timo Kropp, Visualiserung von Trajektorien live in Microsoft Bing Maps, B.Sc. thesis, TU Vienna, 2009

### 11. International Experience

01/2022 - 12/2023

<u>Marie Curie Fellowship</u>, TU Munich & Technion, Haifa, Hosts: Laura Leal-Taixé, Michael Lindenbaum 12/2018

<u>Academic Visitor</u>, SUSTech, Department of Computer Science and Engineering, Shenzhen, Host: Xin Yao 10/2000 - 04/2001

<u>Kurt Gödel Scholarship</u>, University of Queensland, Australia, Hosts: Brian Lovell, Kurt Kubik 05/2000

Erasmus Intensive Programme, INSA, Lyon, Host: Jean-Michel Jolion

# 12. Teaching Experience

- <u>Introduction to AI and Deep Learning for Professional Engineers (2020S, 2020W)</u>: This training course is for technology experts, software developers/architects, system architects and project managers. The idea is to

- close a gap in professional training in Austria. Professionals will learn foundations of deep learning and its applicability to practical problems. The course is divided into two days with lectures and with a main emphasis on practical lab work. Professionals work in small groups of three on a mini project.
- 183.605 Machine Learning for Visual Computing (2014W, 2015W, 2016W): The graduate course is made for master students in computer vision and computer graphics, who aim at a basic understanding of machine learning. The goal of this course is to: a) understand the mathematical foundations of machine learning, its theoretical limits and its difference to statistics and artificial intelligence, b) learn supervised techniques for classification and regression (linear predictors, SVM, nearest neighbour, neural networks) and unsupervised clustering techniques for data exploration (k-means, competitive learning), c) implement some of those techniques for problems in computer vision and computer graphics. The course is divided into 12 weekly lectures each 90 min. Each lecture is again divided into nine subtopics which I introduce by writing on blackboard at the beginning. Mathematical formulas and proofs are always written on blackboard, to allow the students to slowly follow the basics. Apart from that, the lecture is a multimedia presentation, where I try to find a good mix among slides, videos, examples from the professional world and discussions with the students. Asking the students questions and vice versa encourage students to ask questions is very important to me. The practical part consists of three larger exercises with implementation homework the students have to do in groups of three. The course builds on the book Understanding Machine Learning: From Theory to Algorithms by Shai Ben-David and Shai Shalev-Shwartz, Cambridge Univ. Press, 2014.
- 188.057, 183.046 Einführung in das Programmieren, 186.035 Einführung in das Programmieren für Anwender (1998W, 1999W, 1999S, 2000S, 2004W, 2005W, 2006S, 2006W): Gave two undergraduate courses in programming as part of the curricula (business) informatics and biomedical engineering. Introduced the language Java by using practical examples from physics, maths and economy.
- 183.315, 183.067 Einführung in die Mustererkennung (2001W, 2002W, 2003S, 2004S, 2005S, 2006S, 2007S, 2008S): Introduced the basic concepts and techniques of signal processing and pattern recognition with emphasis on the analysis of image data. Organised lab exercises for undergraduates in groups of three students: four exercises with written reports and three interviews.
- <u>183.036 Neuronale Netze (2002W)</u>: Gave lab exercises in neural networks for graduate students with emphasis on MLPs and competitive learning i.e. Kohonen networks, neural gas and its variants.
- <u>183.155 Anwendungen der Bildverarbeitung (2003W)</u>: Organised an excursion to BMW, Steyr, where graduate students were able to see practical examples of image processing/understanding in production of BMW engines. The course result was a final report written by all students in the group.
- <u>183.051 Bildverstehen (2007W)</u>: Graduate course introducing foundations of human vision, signal processing, projection models, camera radiometry, segmentation, edge detection, image enhancement, morphology, texture analysis, object recognition. Students needed to solve exercises during course progress.

### 13. Reviewing Activities

- <u>Regular reviewer</u> of CVPR, ICCV, ECCV, Winter Conference on Applications of Computer Vision (WACV), AVSS, Computer Vision Winter Workshop (CVWW), Springer International Journal of Computer Vision (IJCV), IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI), ICLR'22, NeurIPS'22
- Was since 2008 (for some time period regularly) reviewer of Int. Conference on Robotics and Automation (ICRA), Int. Conference on Intelligent Transport Systems, Int. Conference on Distributed Smart Cameras (ICD-SC), Austr. Association for Pattern Recognition conference (OAGM), Workshop on Target Re-Id. and Multi-Target Multi-Cam. Track. (REID-MTMCT), ACM Transaction on Embedded Computing, Computer Vision and Image Understanding, IEEE Intelligent Systems, IEEE Trans. on Circuits and Systems for Video Technology, IEEE Trans. on Image Processing, IEEE Signal Processing Letters, IEEE Trans. on Instrumentation and Measurement, Journal of Mathematical Imaging and Vision, Journal of the Optical Society of America, Journal of Electronic Imaging, Machine Vision and Applications, Neurocomputing, Optics and Lasers in Engineering, Pattern Recognition, Signal, Image and Video Processing, Journal of Visual Communication and Image Representation

Munich, Friday, 8. April 2022