

## Curriculum Vitae: Martin Kampel

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### PERSONAL INFORMATION

*Born:* 02.09.1968  
*Nationality:* Austrian  
*Address:* Am Tabor 22-22/5/26, A-1020 Vienna, Austria  
*Marital status:* married; 2 children (Felix: 15 years, Miriam: 11 year)  
*www:* <https://cvl.tuwien.ac.at/staff/martin-kampel/>  
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Martin Kampel was born in Steyr, Austria, in 1968. He received the B.Sc. in Data Technologies and Computer Science, the M.Sc. degree (Diplom Ingenieur) in Computer Science (Computer Graphics, Pattern Recognition and Image Processing) in 1999, the Ph.D. degree in Computer Science in 2003 and the Venia docendi in 2009 both from the Vienna University of Technology.

He is Associate Professor at the Computer Vision Lab, Vienna University of Technology engaged in research, project coordination, industry consulting, and teaching. His main research interest is Computer Vision focusing on Context aware computing and (ubiquitous) sensing. He is author or co-author of more than 100 scientific peer reviewed publications presented at several international conferences and workshops and is a member of the IAPR and the IEEE. As a co-founder he was involved in four startups demonstrating his expertise in applied research and technology transfer.

### EDUCATION

<b>Federal Ministry of Science, Research and Economy, Austria</b>	2011
Chartered engineering consultant for computer science, Federal Ministry of Science, Research and Economy	
<b>Vienna University of Technology, Austria</b>	2004-2009
Habilitation. Thesis title: <i>Recognition and Reconstruction in Archaeology and Surveillance</i> , Vienna University of Technology	
<b>Vienna University of Technology, Austria</b>	1999-2003
PhD Computer Science with distinction. Thesis title: <i>3D Mosaicing of Fractured Surfaces</i> , Thesis advisor: ao. Prof. R. Sablatnig	
<b>Vienna University of Technology, Austria</b>	1995-1999
M.Sc. Computer Science, Thesis title: <i>Registration of Rotational Symmetric Objects</i> , Thesis advisor: ao. Prof. R. Sablatnig	
<b>Rijksuniversiteit te Leiden, The Netherlands</b>	1994
Erasmus Student Exchange	
<b>Vienna University of Technology, Austria</b>	1990-1994
Data Technologies	

## Research Stays and Visits

Prof. Dinesh Peter, Karunya Institute of Technology & Sciences, Coimbatore, India	2018
Prof. Rene Bonsack, MIT-Sloan School, Boston, USA	2018
Prof. Georgios Theodoropoulos, CSE - SUSTech, Shengzen, China	2017
Prof. Petia Radeva, Computer Vision Center, Universitat de Barcelona, Spain	2016
Prof. Aytul Ercil, Sabanci University, Istanbul, Turkey	2004
Prof. Luc van Gool, Bildwissenschaften, ETH Zürich, Switzerland	2003
Universita degli studi di Pavia, Italy	2001
Institut National des Sciences Appliquées de Lyon, France	2000
Budapest University of Technology, Hungary	1998

## WORK EXPERIENCE (SELECTED POSITIONS)

### Computer Vision Lab

#### Institute of Computer Aided Automation, Faculty of Informatics, Vienna University of Technology, Vienna, Austria

##### *Senior Scientist*

2004 - present

Responsible for initiating, carrying out the research, and coordinating a number of EU-funded research projects as well as national funded projects and proposals.

Teaching responsibility (bachelor, master and PhD level)

Responsible for establishing, developing, and managing a dynamic team of computer scientists.

##### *Research Assistant*

1996 - 2004

Engaged in research (3D-Vision, sensing, registration, 3D reconstruction), teaching (introduction to programming, programming of image processing systems) and administration.

#### app informatics zt gmbh

08.2011 - present

##### *CEO, co-founder*

Chartered engineering consultant for computer science. Clients include European Commission and Austrian Economic Chambers (e.g. for Grant evaluation and strategy consultancy)

#### CogVis gmbh

11.2007 - present

##### *Co-Founder, partner, consultant*

Founded CogVis to bring successful research results into market; taking advantage of machine learning and IoT integration to confidently anticipate what comes next in Pervasive Computing Technologies for Healthcare. Strong partnership with TOYOTA Robotics JAPAN since 2015.

#### forlan gmbh

03.2013 - 12.2016

##### *co-founder*

Co-founded forlan gmbh to develop and sell monitoring or 802.1x appliances in the area of IP-based surveillance technologies. Clients include G4S Secure Solutions AG or Erste Bank Group. Business exit in 2016.

## FUNDING RESEARCH GRANTS AND BIDDING EXPERIENCE

### VHH

01.2019 - 12.2022

#### Visual History of the Holocaust

H2020-SC6-TRANSFORMATIONS-2018, Euro: 370.000

*Research partner*

Scene Understanding and Object Recognition in Images and Videos

**impress**

09.2018 - 08.2020

**IT unterstützte Suche und Vergleich von Schuhspuren in einer  
Tatspurendatenbank und einem Schuhkatalog - impress**

KIRAS - Security Research, Euro: 192.928

*R&D partner*

Automatic system for searching through databases with thousands of  
footwear impression images

**pervasive-tech**

03.2018

**Startup - Financing round for product deployment of pervasive  
technology for healthcare**

Private investors, Euro: 750.000

*Coordination and chief technology officer*

Market entry for the fearless - fall detector

**ADLEA**

06.2016 - 04.2019

**Advancing Deep Learning for Economic Applications**

FFG - Industriennahe Dissertation, Euro: 86.800

*Coordination and Supervisor*

Facilitate the use of deep learning by small and medium-size companies

**Entertrain**

04.2016 - 03.2019

**Entertainment by Training on a Personalized Exergame Platform**

EU AAL - Joint Research Project, Euro: 397.013

*Principal Investigator (PI)*

personalized exergame platform and unobtrusive mobility monitoring  
in 3d

**MIC-Cam**

07.2016 - 06.2018

**Mite Invasion Control Camera**

Wirtschaftsagentur, Programm INNOVATION, Euro: 169.563

*Coordination and Principal Investigator*

Bee monitoring for automated recognition of mites

**FORMS**

09.2015 - 08.2017

**FORensic Marks Search**

KIRAS - Security Research, Euro: 290.857

*R&D partner*

(semi-)automatic search and retrieval of similar tool marks in criminal  
offenses

**FlowCluster**

03.2015 – 2.2018

**Development of a robust methodology to assess therapy response  
in Acute Myeloid Leukemia (AML)**

(Vienna Business Agency, Euro 220.000

*Scientific Advisor*

Machine Learning for therapy assessment

**AutoFlow**

02.2014 – 1.2018

**Development of an objective and automated analysis tool**

**for multi-parameter FCM data with robust and reliable  
MRD quantification**

Marie Curie - IAPP People, Euro 1.600.000)

*Project Coordinator and Principal Investigator*

Marie Curie fellowships on medical imaging and machine vision

**Wellbeing**

06.2014 – 5.2017

**Optimizing the Workplace of ELderly Laborers: BE IN  
Good health**

EU-AAL Joint Project, Euro 468.000)

*Principal Investigator*

Activity recognition for AAL (Ambient Assisted Living), (number one ranked project)

**The Profiler**

10.2014 – 9.2016

**Profiling Tool to Describe Persons Based on Acquisition and  
Content Based Analysis**

Sparkling Science: BMWFW, Euro 168.000)

*Coordination and Principal Investigator*

Research, implementation and evaluation of state-of-the-art algorithms to detect, recognize and classify persons, age, gender and emotions in large amounts of image data taken in unconstrained environments

**RECLAIM**

01.2013 – 12.2016

Reclamation of Gallium, Indium and Rare-Earth Elements from Photovoltaics,  
Solid-State Lighting and Electronics Waste

(FP7-NMP, Euro: 451.890)

*RD partner*

Applied research project in an interdisciplinary topic, computer vision together with chemistry and applied physics

**ILAC**

01.2011 – 6.2014

Image-based classification of ancient coins

FWF, Euro: 225.000

*Coordination and Principal Investigator*

Research project in an interdisciplinary topic, computer vision together with numismatics

**RHEA**

07.2010 - 06.2014

Robot Fleets for Highly Effective Agriculture and Forestry  
Management

EU FP7, Euro: 49.000

*RD partner*

3D Reconstruction via mobile sensors.

**Fearless**

07.2011 - 06.2013

Fear Elimination As Resolution for  
Loosing Elderly s Substantial Sorrows  
AAL Joint Programme, Euro 295.000

*Principal Investigator*

Vision based fall detection

**Sciba**

01.2011 - 3.2014

Image-based object recognition and behavior analysis in image sequences

FFG-Industriennahe Dissertation, Euro: 115.000  
*Coordinator and Supervisor*  
 Event detection by a multicamera approach

**Capri** 01.2011 - 12.2013

Classification and Pose Recovery in Image Sequences  
 FFG-Industriennahe Dissertation, Euro: 115.000  
*Coordinator and Supervisor*  
 Pose Estimation by multicamera networks

**SPY** 01.2011 - 11.2013

Surveillance imProved sYstem  
 EU ITEA 2, Euro: 150.000  
*RD partner*  
 Visual surveillance on mobile units.

TEACHING  
EXPERIENCE

**Vienna University of Technology  
Faculty of Informatics**

183.663: Deep Learning for Visual Computing, co lecturer	2016 - present
183.152: Scientific Work	2006 - present
183.470, 183.480: Programming Image Processing Systems, course lecturer and laboratory exercise supervisor	2002 - present
183.200: Analysis of Image Sequences, course lecturer and laboratory exercise supervisor	2005 - present
183.176: Project on Computer Graphics and Digital Image Processing, supervisor	1999 - present
183.293: Diploma & Ph.D. Seminar, co-coordinator	2004 - present
183.125: Seminary (including bachelor thesis)	2005 - present
183.210: Introduction to Programming, tutor, student assistant, coordination	1992 - 2007
183.121: Introduction to Digital Image Processing, laboratory exercise supervisor	2004 - 2007
183.126: Introduction to Digital Image Processing (selected lectures)	2004 - 2007
183.130: 3D Vision (selected lectures)	2002 - 2004

**Danube University Krems, Austria**

Visuelle Kompetenzen	2016, 2018
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**Technikum Wien - University of Applied Sciences, Austria**

Methoden der Bildverarbeitung	2018 – present
Maschinelles Sehen und Lernen	2018 – present
Visual Computing	2011 – 2018
Multimediale Systeme	2009 – 2013
Internet Vision	2011 – 2017

**FH Joanneum - University of Applied Sciences, Austria**

Computer Vision	2012 - 2016
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	Computer Graphics and Image Processing	2006 - 2012
	<b>FH Kärnten - University of Applied Sciences</b>	
	Data Exchange and Interfaces for Geoinformatics	2005 – 2007
	<b>PhD Thesis Supervision</b>	
	Roxane Licandro: <i>Time modelling of malignancies</i> (co-supervision with Georg Langs, MedUni Wien)	in progress
	Christopher Pramerdorfer: <i>Deep analysis of human behaviour</i>	in progress
	Hafez Anwar: <i>Rotation and Translation invariant geometry for Bag of visual Words Model</i> (co-supervised with Sven Havemann, TU Graz)	2015
	Rainer Planinc: <i>Behaviour Modeling based on depth data in the context of AAL</i> (co-supervised with Jose Bravo, University of Castilla-La Mancha, Spain)	2015
	Sebastian Zambanini: <i>Feature based object classification</i> (co-supervised with Dieter W. Fellner, TU Darmstadt)	2014
	Andreas Zweng: <i>Event detection in multicamera environments</i> (co-supervised with James Ferryman, Univ. Reading)	2014
	Michael Hödlmoser: <i>Realtime 3d reconstruction in multicamera networks</i> , (co-supervised with Marc Pollefeys, ETH Zurich)	2013
GENDER SENSITIVITY	<b>FH Technikum</b> <b>Diversity Management and Gender Mainstreaming</b> Further education	2017
	<b>Frauen in die Technik - FIT Wien</b> Active support as presenter at Infotage and regular visits	2015 - present
EVALUATION AND REVIEWS	<b>Regional Court</b> <b>Legally sworn expert witness for ICT</b> Expert opinion on biometry and image forensics.	2006 - present
	<b>AAL Joint Programme</b> Project Evaluator and Reviewer	2012 - present
	<b>FP6 and FP7 ICT</b> Project Evaluator and Reviewer	2012-present
CONFERENCE AND WORKSHOP ORGANIZATION	<b>General Chair</b> <b>Fairness in Algorithms:</b> Interdisciplinary Workshop for Sociology and Machine Learning	12.2018
	<b>General Co-Chair</b> <b>DATRA 2018:</b> International Workshop on data-driven Treatment Response Assessment	09.2018
	<b>General Chair</b> <b>SPPRA 2013:</b> 10th International Conference on Signal Processing, Pattern Recognition and Applications	02.2013

	<b>General Co-Chair</b> <b>VSMM 2009:</b> 15th International Conference on Virtual Systems and Multimedia	09.2009
	<b>Financial Chair</b> <b>EVA 2008:</b> 2nd EVA Vienna Digital Cultural Heritage - Essential for Tourism	08.2008
	<b>General Chair</b> <b>CRW 2008:</b> International Coin Recognition Workshop	08.2008
	<b>General Co-Chair</b> <b>CAIP 2007:</b> The 12th International Conference on Computer Analysis of Images and Patterns	08.2007
	<b>General Co-Chair</b> <b>CVCH 2007:</b> International Summer School Computer Vision for Cultural Heritage	08.2007
	<b>Technical Chair, Session Chair</b> <b>EVA 2006:</b> 1st EVA Vienna Digital Cultural Heritage - Essential for Tourism	09.2006
	<b>Organizing Committee, Session Chair</b> <b>DAGM 2005:</b> 27th Annual meeting of the German Association for Pattern Recognition.	09.2005
MEMBER OF INTERNATIONAL PROGRAM COMMITTEE / REVIEWER	CVPR, ICPR, IEEE Transactions on Multimedia, ICIAR, PRLetters, ECCV, ISVC, Journal: Pervasive and Mobile Computing	2018
	CVPR, CIARP, Journal on Computing and Cultural Heritage, Conf. on Ubiquitous Computing & Ambient Intelligence, ICCV, Mexican Conf. on Pattern Recognition, Ambient, ICPRS, CAIP, CVIU	2017
	CVPR, ICPR, ECCV, MVPR, Journal of Signal Processing, VISAPP, IET Computer Vision, VSMM, CAA; EUROGRAPHICS Workshop on Graphics and Cultural Heritage	2016
	Journal for Pattern Recognition, Computer Analysis of Images and Patterns, Computer Aided Archaeology, Journal on Computing and Cultural Heritage, Neurocomputing Journal	2015
	Pattern Recognition Letters, VISAPP, Journal on Computing and Cultural Heritage, Multimedia Tools and Applications, Pervasive Health, IWAAL, ICPR	2014
	Pattern Recognition Letters, CAIP, MCPR, ISVC, IET Computer Vision	2013
	CIARP, MCPR, VSMM, ACCV, Journal of Cultural Heritage	2012
	IWAAL, CAIP, MCPR, ICOST, JOCH, Journal Measurement Science and Technology	2011
	IEEE ICPR, ISVC, AAPR, IMAGAPP, CAA, IEEE Transactions on Systems, Man, and Cybernetics	2010
ASSOCIATIONS	<b>Board of Directors</b> of the independent nonprofit association (AAPR, Austrian Association for Pattern Recognition)	2006-2012
	Founder and <b>President</b> of the independent nonprofit association Computer Vision (CV-Club)	since 2010
	<b>Member</b> of the Österreichische Gesellschaft der Freunde des WEIZMANN INSTITUTE OF SCIENCE	since 2003
	<b>Co-Chair</b> of IAPR-TC 19 on Computer Vision for Cultural Heritage Applications Member of the IAPR and the IEEE Computer Society	2001-2009 since 2001

KEYNOTE TALKS  
AND INVITED  
PRESENTATIONS

**2013 - 2018**

- AAL-Kongress, Karlsruhe, Germany: "AAL Lösungen im Pflegealltag in Österreich", Oct. 2018, keynote talk.
- AAL Forum, Bilbao, Spain: "How to launch an AAL solution", Sept. 2018, keynote talk.
- Int. Conference on Clinical and Medical Image Analysis, Coimbatore, India: "Healthcare Engineering from Clinical Tools to Ambient Assisted Living", July 2018, keynote talk.
- ACM International Conference on Pervasive Technologies Related to Assistive Environments, Corfu, Greece: "Fearless: An intelligent, contactless fall sensor that not only detects falls, but also helps to prevent them", June 2018, invited presentation.
- FFG Benefit Ausschreibung 2016, Vienna, Austria: "Eine unternehmerische Sicht: eine AAL Lösung von der Projektidee zum Markteintritt", Jan. 2017, invited presentation.
- MBA Entrepreneur Ship & Innovation, Vienna, Austria: "From research to products: a practical and subjective approach", Dec. 2017, invited presentation.
- Internet of things and societal security, Bonn, Germany: "TITEL TITEL", invited presentation, June 2016.
- AAL Forum, St. Gallen, Switzerland, "Acceptance criteria for Vision based Fall detection", invited presentation, Sept. 2016.
- BMWFW-Tag der offenen Tür, Vienna: "The Profiler, a Sparkling Science project", invited presentation, Oct. 2016.
- Bergen festspillene, Norway: "Health and welfare technology in dementia care", keynote talk, May 2015.
- Vienna Research Festival, Austria: "Cogvis Fearless Life Comfort System", invited presentation, Sept. 2015.
- Active and Assisted Living Day, Austria: "From science to products for AAL", invited presentation, Sept. 2015.
- KIRAS: 3. Sicherheitstagung, Vienna, Austria: "Event detection from video streams", invited panel discussion, Oct. 2014.
- Hannover Messe, Germany: "Visual computing innovations", invited demonstration, 2014.
- IP Video Day, Salzburg, Austria: "Biometrische Mustererkennung" keynote talk, Oct. 2014.
- Colour and Space in Cultural Heritage, London, UK: "Sensing data from ancient coins, pottery fragments and archaeological manuscripts", invited presentation, Sept. 2013.
- Forum Alpbach-Technologiegespräche, Alpbach, Austria: "embedded computer vision", invited presentation, Aug. 2013.