

PERSONAL INFORMATION

Roberto Vezzani



 +39 059 205 6171

 roberto.vezzani@unimore.it

 <https://aimagelab.ing.unimore.it/go/vezzani>

 [ORCID 0000-0002-1046-6870](https://orcid.org/0000-0002-1046-6870)

Gender Male | **Date of birth** 31 October 1977 | **Nationality** Italian

WORK EXPERIENCE

Jan 2018 – Present

Scientific Coordinator of the RedVision Laboratory

Scientific Coordinator of the RedVision Laboratory of the University of Modena and Reggio Emilia, a joint research laboratory established with and funded by Ferrari SpA. Research at RedVision Lab is focused on Computer Vision and Artificial Intelligence for Human Computer Interaction.

Dec 2016 – Present

Associate Professor

Associate Professor of Information Engineering (ING-INF/05) at the Engineering Department "Enzo Ferrari" of the University of Modena and Reggio Emilia

Nov 2018 – Nov 2021

Director of the Artificial Intelligence Research and Innovation Center (AIRI, ex Softech-ICT)

Director of the Artificial Intelligence Research and Innovation Center (ex Softech-ICT) of the University of Modena and Reggio Emilia

Dec 2008 – Dec 2016

Assistant Professor

Assistant Professor of Computer Science (INF/01) at the Engineering Department "Enzo Ferrari" of the University of Modena and Reggio Emilia

Feb 2007 – Nov 2008

Post-doc research grant

Post-doc research grant at the University of Modena and Reggio Emilia on "MPEG-7 annotation and efficient query of multimedia data from automatic video surveillance systems"

Jan 2004 – Dec 2006

PhD student

PhD in Information Engineering at the University of Modena and Reggio Emilia, Cycle XIX.

Jun 2002 – Dec 2003

Research grant

Research grant at the University of Modena and Reggio Emilia on "Domotica per disabili", funded by Fondazione Cassa di Risparmio di Modena

EDUCATION AND TRAINING

2007

PhD in Information Engineering

PhD in Information Engineering at the University of Modena and Reggio Emilia with a thesis on "Computer Vision for People Video Surveillance", tutor Prof. Rita Cucchiara

Sep 2005 – Dec 2005

Internship at the Computer Vision Laboratory of the University of Central Florida, Orlando, FL, under the supervision of prof. Mubarak Shah. During the internship, he worked on the "Video Analysis and Content Extraction (VACE) - Subproject Where Am I" funded by Advanced Research and Development Activity (ARDA).

2002 Master's degree

Graduated in Information Engineering (110/110 cum Laude) at the University of Modena and Reggio Emilia

1996 Diploma di Perito Tecnico

Istituto Tecnico Industriale Statale "Fermo Corni", Modena, (60/60)

RESEARCH ACTIVITY

His research topics mainly belong to computer vision and pattern recognition for Human-Computer Interaction, IoT, automatic video surveillance, with particular focus on motion detection, tracking, action classification and automatic annotation of videos. Among the others, he mainly addresses algorithms and systems based on depth, event, thermal cameras, and their integration with conventional cameras and other sensors.

Research laboratory

AimageLab Senior member of the AimageLab research group since 2003 (<https://aimagelab.ing.unimore.it>). AimageLab is a laboratory of the "Enzo Ferrari" Engineering Department, University of Modena and Reggio Emilia. Almagelab, directed by Prof. Rita Cucchiara, is made up of 6 structured members and about 35 members including doctoral students and research fellows and temporary researchers. Within Aimagelab, Vezzani coordinates the research unit for basic and applied research projects. In particular, he deals with artificial vision for human-machine interaction, using RGB sensors, depth and thermal. The AimageLab laboratory and specifically Roberto Vezzani is part of several national and international collaborations.

Bibliometric scores

H-index: 36, citation number: 4104 (Source Google Scholar, last update Sep 2023)

Research projects

- 2021 – 2024 Scientific coordinator of the project commissioned by Toyota Motors Europe for the study of human pose estimation techniques in the industrial field. The funding also includes a three-year scholarship for the doctoral school.
- 2020 – 2021 Responsible of the Research project funded by Ferrari Spa for the use of in-car cameras to estimate the alertness status of the driver.
- 2019 – 2020 Responsible of the Research project on "Studio di anomalie nell'ambito del progetto EPIDECT" funded by MAPS group S.p.A for the study of anomalies in medical prescriptions using artificial intelligence techniques in order to identify situations of interest in the fight against epidemics and in particular Covid19
- 2019 – 2020 Responsible of the Research project on "Framework for the generation of a semi-automatically annotated dataset of manual tasks" funded by Tetra Pak Packaging Solutions S.p.A
- 2019 – 2021 Technical responsible of the research project on "Computer Vision and Artificial Intelligence for HMI and autonomous driving in automotive" funded by Ferrari S.p.A
- 2019 – 2021 Responsible of the Research project funded by Luccioni SPA for the use of cameras to predict operator behavior in the proximity of collaborative robotic cells.
- 2018 – 2021 Co-responsible of the joint lab RedVision between University of Modena and Reggio Emilia and Ferrari S.p.A
- 2016 – 2017 Technical coordinator of the regional project "JUMP - Una piattaforma sensoristica avanzata per rinnovare la pratica e la fruizione dello sport, del benessere, della riabilitazione e del gioco educativo" (2016-2017) PG/2015/726369, funded by Regione Emilia Romagna, Por-Fesr 2014-2020.
- 2016 – 2017 Participant to the research project "DriverAttention - Monitoring the car driver's attention with multisensory systems, computer vision and machine learning", funded by Unimore within the call FAR2015
- 2014 – 2017 Participant and administrative coordinator of the local unit of the research project "La Città Educante", (CTN01_00034_393801), funded by MIUR - Cluster tecnologici nazionali

- 2014 – 2017 Participant in the research project “DICET - INMOTO - ORganization of Cultural HERitage for Smart Tourism and Real-time Accessibility (OR.C.HE.S.T.R.A.)”, (CTN01_00034_393801), funded by MIUR - Cluster tecnologici nazionali
- 2014 – 2015 Scientific leader to the project HAXIA “Studio di nuovi strumenti e tecniche di Human Augmentation per l’assistenza industriale” funded by Spin Automazioni s.r.l.
- 2012 – 2017 Florimage - Technical leader of the research project and joint lab *Florimage - the floor is an image*
- 2011 – 2012 Technical coordinator of the research project in collaboration with the Modena Municipality for an intelligent surveillance system
- 2010 – 2012 WP Leader of the European project “THIS - Transport Hub Intelligent video System” (2010-2012), [JLS/2009/CIPS/AG/C1-028], funded by CIPS -DG JLS - Justice, Freedom and Security, programme “Prevention, Preparedness and Consequence Management of Terrorism and other Security-related Risks”.
- 2007 – 2009 Technical responsible for the local unit within the VidiVideo project (Interactive semantic video search with a large thesaurus of machine-learned audio-visual concepts, FP6-045547, 2007-2009). During the project, Roberto Vezzani developed the OpenVisor platform

TEACHING ACTIVITIES

- Currently he holds the courses of “Computer Architecture”, for the Electronics Engineering and “IoT” for the master degree in Computer Engineering. Follows a complete list in Italian.
- 2023 – Present **Industrial IoT and Artificial Intelligence** - Corso di Industrial IoT and Artificial Intelligence, presso il Dipartimento di Ingegneria “Enzo Ferrari”, Laurea Magistrale in Sustainable Industrial Engineering presso la sede di Carpi (MO).
- 2020 – Present **IoT and 3D Intelligent Systems** - Corso di IoT and 3D Intelligent Systems, presso il Dipartimento di Ingegneria “Enzo Ferrari”, Laurea Magistrale in Ingegneria Informatica.
- 2017 – Present **Calcolatori Elettronici**, 9 CFU presso l’Università degli Studi di Modena e Reggio Emilia, sede di Modena, Dipartimento di Ingegneria “Enzo Ferrari”, Corso di Laurea in Ingegneria Elettronica.
- 2018 – 2020 **Smart Technologies for Sustainable design**, modulo da 60 ore su ICT for Smart Products, Corso di Laurea Magistrale interateneo di Innovation Design
- 2017 – 2019 **Informatica Industriale e IoT** - Modulo da 3 CFU del corso di Informatica Industriale e IoT, presso il Dipartimento di Ingegneria “Enzo Ferrari”, Corso di Laurea Magistrale in Ingegneria Informatica.
- 2012 – 2018 **Progettazione di Sistemi Embedded** - Affidamento di un modulo da 4 CFU del corso di Progettazione di Sistemi Embedded, presso il Dipartimento di Scienze e Metodi dell’Ingegneria, presso l’Università degli Studi di Modena e Reggio Emilia, sede di Reggio Emilia, corso di Laurea Magistrale in Ingegneria Meccatronica
- 2006 – 2017 **Architettura dei Calcolatori** - Affidamento del corso di Architettura dei Calcolatori, 9 CFU presso l’Università degli Studi di Modena e Reggio Emilia, sede di Modena, Dipartimento di Scienze Fisiche, Informatiche e Matematiche, Corso di Laurea in Informatica

Invited talks

- 2016 “A General-Purpose Sensing Floor Architecture for Human-Environment interaction” during the 21st ACM Conference on Intelligent User Interfaces (IUI 2016) 7-10 Marzo 2016, Sonoma, California
- 2012 Scuola la Visione delle Macchine 2012 - “Recent achievements on Multicamera People Surveillance: the Re-identification problem”, University of Genova
- 2010 Domotica e Disabilità 2010 - “Il disabile in ospedale: accoglienza e assistenza” sugli ausili di visione artificiale per il disabile in ospedale e a casa.” Lions Club (10/4/2010).
- 2010 FallCam 2009 - “Computer Vision Techniques for Dangerous Situation Detection in Domotics Applications” during the Symposium “Camera Based Fall Detection”
- 2007 Video Gov 2007 - Presentation of the ViSOR portal during the Summit “Video-Gov 2007”, Marriott Park Hotel - ROMA

ADDITIONAL ACTIVITIES

Membership

- 2019 – Present Member of the ELLIS society (<https://ellis.eu/>)
- 2005 – Present Member of the Institute of Electric and Electronics Engineers (IEEE) Computer Society
- 2005 – Present Member of the Italian Chapter of IAPR - Associazione Italiana per la ricerca in Computer Vision, Pattern recognition e machine Learning (CVPL, ex-GIRPR)
- 2005 – Present Member of the Association for Computer Machinery (ACM)

Awards

- 2021 Best paper award at the ICPR2020 Conference with the paper "RefiNet: 3D Human Pose Refinement with Depth Maps" [1]
- 2020 Best paper award at the VISAPP 2020 Conference with the paper "Learn to See by Events: Color Frame Synthesis from Event and RGB Cameras" [2]
- 2010 Second position at the international contest "SDHA 2010 - Semantic Description of Human Activities", within the IEEE International Conference on Pattern Recognition 2010.
- 2008 Best paper award at the First International Workshop on Tracking Humans for the Evaluation of their Motion in Image Sequences (THEMIS'2008), Leeds, Settembre 2008, for the paper Vezzani, Cucchiara, AD-HOC: Appearance Driven Human tracking with Occlusion Handling

Institutional commitments

- 2019 – Present Member of the scientific technical committee of Cluster Tecnologico Nazionale SmartCommunities [<https://www.smartcommunitiestech.it/>]

Editor and guest editor of scientific journals

- 2021 – Present Associate Editor of Machine Vision and Applications, Springer
- 2019 – Present Associate Editor of MDPI Sensors journal
 - 2018 Guest Editor of the Special Issue on "Depth Sensors and 3D Vision" MDPI Sensors
 - 2012 Guest Editor of the Special issue on "Pattern Recognition and Artificial Intelligence for Human Behaviour Analysis", Expert Systems: The Journal of Knowledge Engineering

Conference organization

- ICPR 2020 Publication Chair – 25th International Conference on Pattern Recognition
- FG2019 organizer and speaker - Tutorial 3D HUMAN POSE UNDERSTANDING at the IEEE International Conference on Face and Gesture Recognition (FG) Lille FR
- IWCV 2018 Local organizer of the International Workshop on Computer Vision (IWCV). The Workshop it consists of high quality invited lectures by distinguished speakers, expert groups and discussions on topics emerging in computer vision. The main objective is the scientific comparison concerning works in course (therefore without proceedings). Modena, Hotel Canalgrande, from 29 to 31 May 2018
- ICCV 2017 Area Chair and Video Chair of International Conference on Computer Vision, Venezia, Italy.
- RTSI 2017 Technical Session Chair 3rd International Forum on Research and Technologies for Society and Industry, IEEE sezione Italia, Modena, Italy, September 11-13 2017
- ICDSC 2014 Program Chair of International Conference on Distributed Smart Cameras, Venezia, Italy
- PRAI*HBA 2009 General chair of the first Workshop on Pattern Recognition and Artificial Intelligence for Human Behaviour Analysis, Reggio Emilia (Italy)
- ICIAP07 2007 Local organizer of the 14th International Conference on Image Analysis and Processing, Modena, Italy

Activities for the International Doctorate in ICT

- 2021-2024 Tutor of Matteo Fincato

2020-2023	Tutor of Daniele Paganelli
2020-2023	Tutor of Alessandro Simoni
2019 – Present	Member of the Govering board of the International Doctorate in ICT
2018-2021	Co-Tutor of Stefano Pini
2017	Tutor of Filippo Grazioli
2015-2018	Co-Tutor of Guido Borghi
2012-2015	Co-Tutor of Martino Lombardi
2010 – Present	Communication chair of the International Doctorate in ICT
2009-2012	Tutor of Davide Baltieri
2008 – Present	Member of the College International Doctorate in ICT

PERSONAL SKILLS

Mother tongue Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	C1	C1	C2

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

PATENTS

Approved Patents

- 2014 Lucchese, Claudio; Cucchiara, Rita; Lombardi, Martino; Pieracci, Augusto; Santinelli, Paolo; Vezzani, Roberto "Substrate for a sensitive floor and method for displaying loads on the substrate"
- 2019 Vezzani Roberto, Borghi Guido, Cucchiara Rita, Pini Stefano, Grazioli Filippo, Sistema e metodo di autenticazione di persone in ambienti di limitata visibilità

PUBLICATIONS

- [1] A. D'Eusano, S. Pini, G. Borghi, A. Simoni, and **R. Vezzani**. "Unsupervised Detection of Dynamic Hand Gestures from Leap Motion Data". In: *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Vol. 13231. Springer Science and Business Media Deutschland GmbH, 2022, pp. 414–424.
- [2] Alessandro Simoni, Stefano Pini, Guido Borghi, and **Roberto Vezzani**. "Semi-Perspective Decoupled Heatmaps for 3D Robot Pose Estimation from Depth Maps". In: *IEEE ROBOTICS AND AUTOMATION LETTERS* 4 (2022), pp. 1–8.
- [3] L. Bergamini, S. Pini, A. Simoni, **R. Vezzani**, S. Calderara, R. B. D. Eath, and R. B. Fisher. "Extracting accurate long-term behavior changes from a large pig dataset". In: *Proceedings of the 16th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISIGRAPP 2021)*. Vol. 5. SciTePress, 2021, pp. 524–533.
- [4] Ariel Caputo, Andrea Giacchetti, Simone Soso, Deborah Pintani, Andrea D'Eusano, Stefano Pini, Guido Borghi, Alessandro Simoni, **Roberto Vezzani**, Rita Cucchiara, Andrea Ranieri, Franca Giannini, Katia Lupinetti, Marina Monti, Mehran Maghoubi, Joseph LaViola Jr, Le Minh-Quan, Hai-Dang Nguyen, and Minh-Triet Tran. "SHREC 2021: Skeleton-based hand gesture recognition in the wild". In: *COMPUTERS & GRAPHICS* (2021), pp. 1–11.
- [5] Stefano Pini, Guido Borghi, and **Roberto Vezzani**. "Video Frame Synthesis combining Conventional and Event Cameras". In: *INTERNATIONAL JOURNAL OF PATTERN RECOGNITION AND ARTIFICIAL INTELLIGENCE* 35.16 (2021), pp. 1–25.

- [6] Stefano Pini, Guido Borghi, **Roberto Vezzani**, Davide Maltoni, and Rita Cucchiara. "A Systematic Comparison of Depth Map Representations for Face Recognition". In: *SENSORS* 21.3 (2021), pp. 1–18.
- [7] Alessandro Simoni, Andrea D'Eusano, Stefano Pini, Guido Borghi, and **Roberto Vezzani**. "Improving Car Model Classification through Vehicle Keypoint Localization". In: *Proceedings of the 16th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISIGRAPP 2021)*. Vol. 5. 2021, pp. 354–361.
- [8] Alessandro Simoni, Stefano Pini, **Roberto Vezzani**, and Rita Cucchiara. "Multi-Category Mesh Reconstruction From Image Collections". In: *2021 International Conference on 3D Vision (3DV)*. 10662 LOS VAQUEROS CIRCLE, PO BOX 3014, LOS ALAMITOS, CA 90720-1264 USA: Institute of Electrical and Electronics Engineers Inc., 2021, pp. 1321–1330.
- [9] Guido Borghi, Matteo Fabbri, **Roberto Vezzani**, Simone Calderara, and Rita Cucchiara. "Face-from-Depth for Head Pose Estimation on Depth Images". In: *IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE* 42.3 (2020), pp. 596–609.
- [10] Guido Borghi, Stefano Pini, **Roberto Vezzani**, and Rita Cucchiara. "Mercury: a vision-based framework for Driver Monitoring". In: *Proceedings of the 3rd International Conference on Intelligent Human Systems Integration: Integrating People and Intelligent Systems (IHSI 2020)*. 2020.
- [11] Andrea D'Eusano, Stefano Pini, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "RefiNet: 3D Human Pose Refinement with Depth Maps". In: *Proceedings of the 25th International Conference of Pattern Recognition*. 2020, pp. 2320–2327.
- [12] Andrea D'Eusano, Alessandro Simoni, Stefano Pini, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "A Transformer-Based Network for Dynamic Hand Gesture Recognition". In: *2020 International Conference on 3D Vision (3DV 2020)*. 2020, pp. 623–632.
- [13] Andrea D'Eusano, Alessandro Simoni, Stefano Pini, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Multimodal Hand Gesture Classification for the Human-Car Interaction". In: *INFORMATICS* 7.3 (2020), pp. 1–16.
- [14] Stefano Pini, Guido Borghi, and **Roberto Vezzani**. "Learn to See by Events: Color Frame Synthesis from Event and RGB Cameras". In: *Proceedings of the 15th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications*. Vol. 4. PORTUGAL: SCITEPRESS, 2020, pp. 37–47.
- [15] Stefano Pini, Andrea D'Eusano, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Baracca: a Multimodal Dataset for Anthropometric Measurements in Automotive". In: *Proceedings of the International Joint Conference on Biometrics (IJCB)*. 345 E 47TH ST, NEW YORK, NY 10017 USA: Institute of Electrical and Electronics Engineers Inc., 2020.
- [16] Guido Borghi, Stefano Pini, Filippo Grazioli, **Roberto Vezzani**, and Rita Cucchiara. "Face Verification from Depth using Privileged Information". In: *Proceedings of the 29th British Machine Vision Conference (BMVC)*. 2019.
- [17] Guido Borghi, Stefano Pini, **Roberto Vezzani**, and Rita Cucchiara. "Driver Face Verification with Depth Maps". In: *SENSORS* 15 (2019), pp. 19–3361.
- [18] F. M. Caputo, S. Burato, G. Pavan, T. Voillemin, H. Wannous, J. P. Vandeborre, M. Maghoumi, E. M. Taranta, A. Razmjoo, J. J. LaViola Jr., Fabio Manganaro, S. Pini, G. Borghi, **R. Vezzani**, R. Cucchiara, H. Nguyen, M. T. Tran, and A. Giachetti. "SHREC 2019 Track: Online Gesture Recognition". In: *Eurographics Workshop on 3D Object Retrieval*. The Eurographics Association, 2019.
- [19] Andrea D'Eusano, Stefano Pini, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Manual Annotations on Depth Maps for Human Pose Estimation". In: *Proceedings of the 20th International Conference on Image Analysis and Processing*. 2019.

- [20] Fabio Manganaro, Stefano Pini, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Hand Gestures for the Human-Car Interaction: the Briareo dataset". In: *Proceedings of the 20th International Conference on Image Analysis and Processing*. Vol. 11752. 2019, pp. 560–571.
- [21] Stefano Pini, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Video synthesis from Intensity and Event Frames". In: *Proceedings of the 20th International Conference on Image Analysis and Processing*. 2019.
- [22] Diego Ballotta, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Fully Convolutional Network for Head Detection with Depth Images". In: *Proceedings of the 24th International Conference on Pattern Recognition (ICPR)*. 2018.
- [23] Diego Ballotta, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Head Detection with Depth Images in the Wild". In: *Proceedings of the 13th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISIGRAPP 2018)*. Vol. 5. SCITEPRESS, 2018, pp. 56–63.
- [24] Luca Bergamini, Mario Sposato, Margherita Peruzzini, **Roberto Vezzani**, and Marcello Pellicciari. "Deep Learning-Based Method for Vision-Guided Robotic Grasping of Unknown Objects". In: *Transdisciplinary Engineering Methods for Social Innovation of Industry 4.0*. Vol. 7. IOS Press, 2018, pp. 281–290. URL: <http://ebooks.iospress.nl/volumearticle/49809>.
- [25] Guido Borghi, Elia Frigieri, **Roberto Vezzani**, and Rita Cucchiara. "Hands on the wheel: a Dataset for Driver Hand Detection and Tracking". In: *Proceedings of the 8th International Workshop on Human Behavior Understanding (HBU)*. Institute of Electrical and Electronics Engineers Inc., 2018, pp. 564–570.
- [26] Matteo Fabbri, Guido Borghi, Fabio Lanzi, **Roberto Vezzani**, Simone Calderara, and Rita Cucchiara. "Domain Translation with Conditional GANs: from Depth to RGB Face-to-Face". In: *Proceedings of the 24th International Conference on Pattern Recognition (ICPR) 2018*. 2018.
- [27] Matteo Fabbri, Fabio Lanzi, Simone Calderara, Andrea Palazzi, **Roberto Vezzani**, and Rita Cucchiara. "Learning to Detect and Track Visible and Occluded Body Joints in a Virtual World". In: *Proceedings of the 15th European Conference on Computer Vision (ECCV) 2018*. Vol. 11208. 2018, pp. 450–466.
- [28] Stefano Pini, Filippo Grazioli, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Learning to Generate Facial Depth Maps". In: *Proceedings of the 6th international conference on 3D Vision (3DV)*. 2018.
- [29] Marco Venturelli, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Deep Head Pose Estimation from Depth Data for In-car Automotive Applications". In: *Proceedings of the 2nd International Workshop on Understanding Human Activities through 3D Sensors*. Vol. 10188. Springer Verlag, 2018, pp. 74–85.
- [30] Guido Borghi, Riccardo Gasparini, **Roberto Vezzani**, and Rita Cucchiara. "Embedded Recurrent Network for Head Pose Estimation in Car". In: *Proceedings of the 2017 IEEE Intelligent Vehicles Symposium*. 2017.
- [31] Guido Borghi, Marco Venturelli, **Roberto Vezzani**, and Rita Cucchiara. "POSEidon: Face-from-Depth for Driver Pose Estimation". In: *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. Vol. 2017-. Institute of Electrical and Electronics Engineers Inc., 2017, pp. 5494–5503.
- [32] Elia Frigieri, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Fast and Accurate Facial Landmark Localization in Depth Images for In-car Applications". In: *Proceedings of the 19th International Conference on Image Analysis and Processing*. Springer, 2017, pp. 539–549.
- [33] Marco Venturelli, Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "From Depth Data to Head Pose Estimation: a Siamese approach". In: *Proceedings of the 12th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISAPP)*. Vol. 5. SCITEPRESS, 2017, pp. 194–201.

- [34] L. Baraldi, C. Grana, G. Borghi, **R. Vezzani**, and R. Cucchiara. "Shot, scene and keyframe ordering for interactive video re-use". In: *VISIGRAPP 2016 - Proceedings of the 11th Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications*. Vol. 2016. SciTePress, 2016, pp. 626–631.
- [35] Guido Borghi, **Roberto Vezzani**, and Rita Cucchiara. "Fast gesture recognition with Multiple StreamDiscrete HMMs on 3D Skeletons". In: *Proceedings of the 23rd International Conference on Pattern Recognition*. IEEE, 2016.
- [36] Costantino Grana, Federico Bolelli, Lorenzo Baraldi, and **Roberto Vezzani**. "YAC-CLAB - Yet Another Connected Components Labeling Benchmark". In: *2016 23rd International Conference on Pattern Recognition (ICPR)*. LOS ALAMITOS, CA 90720-1264 USA: IEEE COMPUTER SOC, 2016, pp. 3109–3114.
- [37] Davide Baltieri, **Roberto Vezzani**, and Rita Cucchiara. "Mapping Appearance Descriptors on 3D Body Models for People Re-identification". In: *INTERNATIONAL JOURNAL OF COMPUTER VISION* 111.3 (2015), pp. 345–364.
- [38] Martino Lombardi, **Roberto Vezzani**, and Rita Cucchiara. "Detection of Human Movements with Pressure Floor Sensors". In: *Image Analysis and Processing – ICIAP 2015*. Vol. 9280. Cham: Springer, 2015, pp. 620–630.
- [39] **Roberto Vezzani**, Martino Lombardi, and Rita Cucchiara. "Automatic configuration and calibration of modular sensing floors". In: *Proceedings of the 12th IEEE International Conference on Advanced Video and Signal-Based Surveillance*. New York: IEEE, 2015, pp. 1–6.
- [40] **Roberto Vezzani**, Martino Lombardi, Augusto Pieracci, Paolo Santinelli, and Rita Cucchiara. "A General-Purpose Sensing Floor Architecture for Human-Environment Interaction". In: *ACM TRANSACTIONS ON INTERACTIVE INTELLIGENT SYSTEMS* 5.2 (2015), pp. 1–26. URL: <http://dl.acm.org/citation.cfm?doid=2799389.2751566>.
- [41] Marco Camurri, **Roberto Vezzani**, and Rita Cucchiara. "3D Hough transform for sphere recognition on point clouds". In: *MACHINE VISION AND APPLICATIONS* 25.7 (2014), pp. 1877–1891.
- [42] Claudio Lucchese, Rita Cucchiara, Martino Lombardi, Augusto Pieracci, Paolo Santinelli, and **Roberto Vezzani**. *Substrate for a sensitive floor and method for displaying loads on the substrate*. 2014. URL: <http://google.com/patents/WO2014141166A1?cl=zh-cn>.
- [43] Marco Manfredi, **Roberto Vezzani**, Simone Calderara, and Rita Cucchiara. "Detection of static groups and crowds gathered in open spaces by texture classification". In: *PATTERN RECOGNITION LETTERS* 44 (2014), pp. 39–48. URL: <http://www.sciencedirect.com/science/article/pii/S0167865513004248>.
- [44] C. Micheloni, S. Velipasalar, and **R. Vezzani**. "Welcome message from the technical program committee chairs". In: *Proceedings of the 8th ACM/IEEE International Conference on Distributed Smart Cameras, ICDSC 2014*. Association for Computing Machinery, 2014.
- [45] **Roberto Vezzani** and Rita Cucchiara. "Benchmarking for Person Re-identification". In: *Person Re-Identification*. London: Springer-Verlag London, 2014, pp. 333–349.
- [46] Davide Baltieri, **Roberto Vezzani**, and Rita Cucchiara. "Learning articulated body models for people re-identification". In: *Proceedings of the 21st ACM international conference on Multimedia - MM '13*. New York, NY, USA: ACM, 2013, pp. 557–560.
- [47] L. Iocchi, A. Prati, and **R. Vezzani**. "Editorial to the 'pattern recognition and artificial intelligence for human behaviour analysis' special section". In: *EXPERT SYSTEMS* 30.2 (2013), pp. 99–100.
- [48] Martino Lombardi, Augusto Pieracci, Paolo Santinelli, **Roberto Vezzani**, and Rita Cucchiara. "Human Behavior Understanding with Wide Area Sensing Floors". In: *Lecture Notes in Computer Science Human Behavior Understanding*. Vol. 8212. Cham (ZG): Springer International Publishing, 2013, pp. 112–123.

- [49] Martino Lombardi, Augusto Pieracci, Paolo Santinelli, **Roberto Vezzani**, and Rita Cucchiara. "Sensing floors for privacy-compliant surveillance of wide areas". In: *Advanced Video and Signal Based Surveillance (AVSS), 2013 10th IEEE International Conference on*. Vol. 1. 345 E 47TH ST, NEW YORK, NY 10017 USA: IEEE - Institute of Electrical and Electronics Engineering, 2013, pp. 105–110.
- [50] A. Prati, **R. Vezzani**, M. Fornaciari, and R. Cucchiara. "Intelligent video surveillance as a service". In: *Intelligent Multimedia Surveillance: Current Trends and Research*. Vol. 9783642415128. Springer-Verlag Berlin Heidelberg, 2013, pp. 1–16.
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