MOBISERV – FP7 248434

An Integrated Intelligent Home Environment for the Provision of Health, Nutrition and Mobility Services to the Elderly

Deliverable

D1.3: MOBISERV Final Project Report

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5.4 Main dissemination results (section A)

This section describes the dissemination measures, including any scientific publications, relating to foreground. Its content demonstrates the added-value and positive impact of the project on the European Union.

5.4.1 Scientific Publications (A1)

This is a list of all scientific (peer reviewed) publications relating to the foreground of the project.

Date & Venue	Title & Information
4-7 May, Athens, Greece, 2010	Ermioni Marami and Anastasios Tefas, "*Face Detection using Particle Swarm Optimization and Support Vector Machines*", 6th Hellenic Conference on Artificial Intelligence
July 18-23, Barcelona, Spain, 2010	Ermioni Marami and Anastasios Tefas, "*Using Particle Swarm Optimization for Scaling and Rotation invariant Face Detection*", 2010 IEEE congress on Evolutionary Computation, World Congress on Computational Intelligence
August 23-26, 2010, Istanbul, Turkey	Nikolaos Arvanitopoulos, Dimitrios Bouzas, Anastasios Tefas, "*Subclass Error Correcting Output Codes using Fisher's Linear Discriminant Ratio*", 20th International Conference on Pattern Recognition
September 15-18, 2010, Thessaloniki, Greece	Anastasios Maronidis, Anastasios Tefas and Ioannis Pitas "*Frontal view recognition using Spectral Clustering and Subspace Learning methods*", 20th Int. Conf. on Artificial Neural Networks
September 15-18, 2010, Thessaloniki, Greece	Dimitris Bolis, Anastasios Maronidis, Anastasios Tefas and Ioannis Pitas "*Improving the Robustness of Subspace Learning Techniques for Facial Expression Recognition*", 20th Int. Conf. on Artificial Neural Networks
September 30, 2010, Brussels, Belgium	Maria Nani, Praminda Caleb-Solly, Sanja Dogramadzi, Christine Fear, Herjan van den Heuvel, "*MOBISERV: An Integrated Intelligent Home Environment for the Provision of Health, Nutrition and Mobility Services to the Elderly*", 4th Companion Robotics Workshop
9-12 November, 2010, Lappeenranta, Finland [abstract paper]	P. Heinilä, "*Aspects of a messages-bus based communications framework in multi-modal and multi-device environment to support independent living of elder people*", 8th Finish-Russian University Cooperation in Telecommunications (FRUCT) Conference
June 27-30, 2011 ITI 2011, Cavtat/Dubrovnik, Croatia.	Olga Zoidi, Anastasios Tefas and Ioannis Pitas, "Object Tracking Based on Local Steering Kernels for Drinking Activity Recognition", 33rd International Conference on Information Technology Interfaces (ITI 2011),
June 27 - 30, 2011 CBMS 2011, Bristol, UK.	Caleb-Solly, P., Flind, A. and Vargheese, J., "Cameras as cultural probes in requirements gathering: Exploring their potential in supporting the design of assistive technology". In: 24th International Symposium on Computer-Based Medical Systems (CBMS)
July 5-7, 2011 British Society Gerontology - 40th Annual Conference, Plymouth, United Kingdom.	Praminda Caleb-Solly, Sanja Dogramadzi, Christine Fear, Simon Evans, and Maria Nani, "MOBISERV, An integrated intelligent home environment for the provision of health, nutrition and mobility services for older adults", British Society Gerontology - 40th Annual Conference
August 29 - September 2, 2011, EUSIPCO 2011	Symeon Nikitidis, Anastasios Tefas and Ioannis Pitas, "Using Subclasses in Discriminant Non-negative Subspace Learning for Facial Expression Recognition", Proceedings of 19th European Signal Processing Conference (EUSIPCO 2011), August 29 - September 2, 2011, Barcelona, Spain.
August 29 - September 2,	Alexandros Iosifidis, Anastasios Tefas and Ioannis Pitas, "Person Specific

2011, EUSIPCO 2011, Barcelona, Spain	Activity Recognition using Fuzzy Distances and Discriminant Analysis", Proceedings of 19th European Signal Processing Conference (EUSIPCO 2011)	
October 6-9, 2011 ICMMI 2011, The Beskids, Poland.	Ermioni Marami, Anastasios Tefas and Ioannis Pitas, "Nutrition Assistance based on Skin Color Segmentation and Support Vector Machines", International Conference on Man-Machine Interactions (ICMMI 2011)	
October 6-9, 2011 ICMMI 2011, The Beskids, Poland.	Anastasios Tefas and Ioannis Pitas, "Human Centered Interfaces for Assisted Living", International Conference on Man-Machine Interactions (ICMMI 2011)	
October 2011, Journal: Neural Networks	Anastasios Maronidis, Dimitris Bolis, Anastasios Tefas and Ioannis Pitas "Improving Subspace Learning for Facial Expression Recognition Using Person Dependent and Geometrically Enriched Training Sets", Neural Networks, Elsevier, vol. 24(8), pages 814- 823, 2011	
November 8-11, 2011, FRUCT 2011, Tampere Finland.	Pekka Jäppinen, "Privacy and security in older adults independent living assistance platform", 10th Finish-Russian University Cooperation in Telecommunications (FRUCT) Conference, November 8-11, 2011	
November 16-18, 2011 AmI 2011 (Proceedings 2011), Springer Lecture Notes in Computer Science – LNCS 7040. Heidelberg, 2011	Hujinen, C., Baddi, A., Heuvel, H., Caleb-Solly, P., Thiemert, D., "'Maybe it becomes a buddy, but do not call it a robot' - Seamless Cooperation between Companion Robotics and Smart Homes", Ambient Intelligence - Second International Joint Conference on AmI 2011, Amsterdam, The Netherlands	
February 14, 2012, Pisa, Italy	Presentation at AALIANCE2 Stakeholder Workshop on Technologies for AAL solutions	SMRTX presented the Mobiserv project to the AALIANCE2 consortium, to EU experts, and to many other EU research project delegates.
March 1 – 2, 2012, Bristol, UK	Presentation at the "Design Ahead, Design for an Aging Population" KT-EQUAL national conference	Presentation by Praminda Caleb-Solly (UWE) for ±70 people from assistive technology industry and academia.
March 5 – 7, 2012, Odense, Denmark	Invited talks at EU Robotics Forum	- Eric Lucet (ROBS) presented the technical part of the MOBISERV project. - Ad van Berlo (SMH) presented the user-centred design and evaluation part of the MOBISERV project.
March 25-30, 2012, Kyoto, Japan	Two presentations at IEEE Int. Conf. on Acoustics Speech and Signal Processing in Kyoto (ICASSP) in Japan	Prof. Pitas presented two papers on the results of AUTH in MOBISERV: - Iosifidis A., Marami E., Tefas A. and Pitas I.: *"Eating and drinking activity recognition based on discriminant analysis of fuzzy distances and activity volumes"* - Olga Zoidi, Anastasios Tefas and Ioannis Pitas, *"Visual Object Tracking Based on the Object's Salient Features with Application in Automatic Nutrition Assistance"*
June 11-13, 2012, Montecatini Terme, Italy	Paper presentation at CIMTEC 2012 4th International conference Smart Materials Structure	Tommaso Faetti (SMARTEX) presented a focus on WHSU for night monitoring: T. Faetti, R. Paradiso: *"A novel wearable system for elderly monitoring"*

	Systems	
June 10-15, 2012, Brisbane, Australia	Paper presentation at IEEE International Joint Conference on Neural Networks (IJCNN), IEEE World Congress on Computational Intelligence	Prof. Pitas presented the results of MOBISERV in WP4: Iosifidis A., Tefas A. and Pitas I.: *"Neural representation and learning for multi-view human action recognition"*
June 27 – 29, 2012, Eindhoven, The Netherlands	Paper presentation at ISG*ISARC2012, world conference on gerontechnology	Herjan van den Heuvel (SMH) presented H. v.d. Heuvel, P. Caleb-Solly, C. Huijnen, D. Ellender, E. Lucet, Y. Pons, A. Tefas, H.H. Nap, S. Dogramadzi, C. Fear, M. Nani. *"Mobiserv; a service robot and intelligent home environment for the provision of health, nutrition and safety services to older adults"*
August 2012, publication	Publication in IEEE Transactions on Circuits and Systems for Video Technology	O. Zoidi, A. Tefas and I. Pitas, *"Visual Object Tracking based on Local Steering Kernels and Colour Histograms"*
August 26-31, 2012, Bucharest, Romania	Paper presentation at European Signal Processing Conference EUSIPCO 2012	Two conference papers about the work of AUTH on eating and drinking activity recognition have been presented: - Iosifidis, A. Tefas and I. Pitas, *"Multi-view Human Action Recognition Under Occlusion Based on Fuzzy Distances and Neural Networks"* - O. Zoidi, A. Tefas and I. Pitas, *"Visual Object Tracking via Gabor-based Salient Features Extraction"*
September 17, 2012, online	Online publication in Signal Processing, Elsevier	Iosifidis A., Tefas A. and Pitas I.: *"Multi-view action recognition based on action volumes, fuzzy distances and cluster discriminant analysis"*
September 24 – 27, 2012, Eindhoven, The Netherlands	Presentation at AAL Forum 2012	- Herjan v.d. Heuvel (SMH) presented: H. v.d. Heuvel, C. Huijnen, P. Caleb-Solly, D. Ellender. *"Mobiserv; a new kind of coach in the journey to independent living; wellbeing, nutrition and safety services to older adults"* - Praminda Caleb-Solly (UWE) presented *"The psychology of loneliness – A montage of perspectives"*
September 24 – 27, 2012, Santander, Spain	Paper presentation at 2012 IEEE International Workshop on Machine Learning for Signal Processing (MLSP)	Anastasios Tefas presented the results in WP4: N. Vretos, A. Tefas and I. Pitas, *"Facial Expression Recognition With Robust Covariance Estimation And Support Vector Machines"*
September 30 to October 3, 2012, Orlando, Florida, USA	Paper presentation at IEEE 2012 International Conference on Image Processing	Prof. Pitas presented the results of MOBISERV in WP4 in the IEEE International Conference on Image Processing: A. Iosifidis, A. Tefas and I. Pitas, *"Discriminant Action Representation for*

		View-Invariant Person Identification"
October 19, 2012, Hertfordshire, UK	Presentation at *"Showcasing research to promote active ageing: from Rehabilitation robots to Assistive technologies"* at KT-Equal 2012	Praminda Caleb-Solly (UWE) presented the Mobiserv project to ±50 academics + commercial partners + clinicians and older adults from the community.
November 2012, publication	Submission of paper to Age and Ageing Journal - Assistive technology: a qualitative study of older people's needs	D. Ellender, P. Caleb-Solly, S. Dogramadzi, T. Fear, *"Assistive technology: a qualitative study of older people's needs"*
December 2012, publication	Publication in IEEE Transactions on Neural Networks and Learning Systems	O. Zoidi, A. Tefas and I. Pitas, *"Multiplicative Update Rules for Concurrent Non-negative Matrix Factorization and Maximum Margin Classification"*
December 2012, publication	Publication in IEEE Transactions on Knowledge and Data Engineering	A. Iosifidis, A. Tefas and I. Pitas: *"Multidimensional Sequence Classification based on Fuzzy Distances and Discriminant Analysis"*
December 2012, publication	Publication in Pattern Recognition Letters	A. Iosifidis, A. Tefas and I. Pitas, *"Dynamic action recognition based on Dynemes and Extreme Learning Machine"*
April 16-19, 2013, publication	Alexandros Iosifidis, Anastasios Tefas and Ioannis Pitas, *"Person Identification from Actions based on Artificial Neural Networks"*, IEEE Symposium Series on Computational Intelligence: Computational Intelligence in Biometrics and Identity Management, Singapore, April 16-19, 2013.	
April 4-5,2013, publication	Alexandros Iosifidis, Anastasios Tefas and Ioannis Pitas, *"Person Identification from Actions based on Dynemes and Discriminant Learning"*, IEEE International Workshop on Biometrics and Forensics, Lisbon, Portugal, April 4-5, 2013	
June 7–8, 2013, publication	O. Chételat, J. Krauss, J. Solà, M. Bertschi and M. Rapin, *"Highly integrated multi-signal monitoring system for cardiorespiratory system"*, European Conference on eHealth and Telemedicine in Cardiovascular Prevention and Rehabilitation, Bern, June 7–8, 2013	
September 9-13, 2013, publication	Symeon Nikitidis, Anastasios Tefas and Ioannis Pitas, *"Maximum Margin Discriminant Projections for Facial Expression Recognition"*, European Signal Processing Conference, September 9-13, Marrakech, Morocco, 2013	
September 9-13, 2013, publication	O. Zoidi, A. Tefas and I. Pitas, *"Exploiting Discriminant and SVM constraints in NMF"*, 21st European Signal Processing Conference (EUSIPCO 2013), September 9-13, Marrakech, Morocco.	
September 15-18, 2013, publication	O. Zoidi, A. Tefas and I. Pitas, *"Exploiting the SVM Constraints in NMF with Application in Eating and Drinking Activity Recognition"*, IEEE International Conference on Image Processing, September 15-18, Melbourne, Australia.	
2013, publication	O. Zoidi, A. Tefas and I. Pitas, *"Multiplicative Update Rules for Concurrent Non-negative Matrix Factorization and Maximum Margin Classification"*. Publication in IEEE Transactions on Neural Networks and Learning Systems, vol. 24, no. 3, 2013.	
2013, publication	O. Zoidi, A. Tefas and I. Pitas, *"Visual Object Tracking based on Local*	

	Steering Kernels and Colour Histograms". Publication in IEEE Transactions on Circuits and Systems for Video Technology, vol. 23, no. 5, pp. 870-882, 2013.
2013, publication	Alexandros Iosifidis, Anastasios Tefas and Ioannis Pitas, "*Multi-view Action Recognition based on Action Volumes, Fuzzy Distances and Cluster Discriminant Analysis*", Signal Processing, vol. 93, pp. 1445-1457, 2013.
2013, publication	Alexandros Iosifidis, Anastasios Tefas and Ioannis Pitas, "*On the optimal class representation in Linear Discriminant Analysis*", IEEE Transactions on Neural Networks and Learning Systems, vol. 24, no. 9, pp. 334-353, 2013.
2013, publication	Alexandros Iosifidis, Anastasios Tefas and Ioannis Pitas, "*Minimum Class Variance Extreme Learning Machine for Human Action Recognition*", IEEE Transactions on Circuits and Systems for Video Technology, D.O.I. 10.1109/TCSVT.2013.2269774,2013.
2013, publication	Alexandros Iosifidis, Anastasios Tefas and Ioannis Pitas, "*Multidimensional Sequence Classification based on Fuzzy Distances and Discriminant Analysis*", IEEE Transactions on Knowledge and Data Engineering, D.O.I. 10.1109/TKDE.2012.223, 2013.
2013, publication	Alexandros Iosifidis, Anastasios Tefas and Ioannis Pitas, "*Dynamic action recognition based on Dynemes and Extreme Learning Machine*", Pattern Recognition Letters, vol. 34, pp. 1890-1898, 2013.
2013, publication	Alexandros Iosifidis, Anastasios Tefas and Ioannis Pitas, "*Learning sparse representations for view-independent human action recognition based on fuzzy distances*", Neurocomputing, vol. 121, pp. 334-353, 2012.
2013, publication	Nicholas Vretos, Anastasios Tefas and Ioannis Pitas, "*Using Robust Dispersion Estimation in Support Vector Machines*", Pattern Recognition, vol. 46, no. 12, pp. 3441-3451, 2013