

Curriculum Vitae for Xenophon Zabulis

Date of birth: 27 October 1973

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EDUCATION AND PROFESSIONAL EXPERIENCE

- 2010-present** *Principal Researcher, Institute of Computer Science of the Foundation for Research and Technology – Hellas (ICS-FORTH)*
- 2008– 2010** *Associate Researcher, Institute of Computer Science of the Foundation for Research and Technology – Hellas (ICS-FORTH)*
- 2007** *Postdoctorate Fellow, Institute of Computer Science of the Foundation for Research and Technology – Hellas (ICS-FORTH)*
- 2004-2007** *Postdoctorate Fellow, Informatics and Telematics Institute, Centre of Research and Technology Hellas (ITI-CERTH)*
- 2004-2007** *Coordinator of Informatics Group, Tellogleion Art Foundation, Thessaloniki, Greece.*
- 2003-2004** *Military Service*
- 2002-2003** *Postdoctorate Fellow, General Robotics, Automation, Sensing and Perception Laboratory, Department of Computer and Information Science, University of Pennsylvania*
- 2001-2002** *Postdoctorate Fellow, Institute for Research in Cognitive Science, University of Pennsylvania*
- 1998-2001** *PhD, University of Crete*
- 1996-1998** *MSc, University of Crete*
- 1992-1996** *BSc, University of Crete*
- 1985-1991** *High School Studies, Anatolia American College of Thessaloniki, Greece.*

SCHOLARSHIPS

- 2001-2003 Research scholarship from the Computer and Information Science Department of the University of Pennsylvania.
- 2001-2002 Research scholarship from the National Science Foundation for research at the Institute for Research in Cognitive Science, Department of Computer and Information Science, University of Pennsylvania.
- 2001 “Manasaki” graduate scholarship. This scholarship is awarded annually to the best graduate student of each department, of the University of Crete.
- 1998-2001 Graduate student scholarship from the Institute of Computer ICS-FORTH for research at the Computer Vision and Robotics Laboratory at ICS-FORTH.
- 1996-1998 Graduate student scholarship from ICS-FORTH for research at the Center for Medical Informatics and Health Telematics Applications at ICS-FORTH.
- 1995-1998 Undergraduate scholarship, from ICS - FORTH for research at the Center for Medical Informatics and Health Telematics Applications at ICS-FORTH.

TEACHING EXPERIENCE

- 2009-2012 Visiting professor to the Computer Science Department - University of Crete, course: “Programming”.
- 2008-2011 Visiting professor to the Computer Science Department - University of Crete, course: “Introduction to Computer Programming”, for the Mathematics department.
- 2004-2007 Co-tutoring with Prof. M. Strintzis in the “Interdisciplinary Graduate Program in Medical Informatics” Aristotle University of Thessaloniki
- 1996-1998 Throughout his graduate studies XZ has been a teaching assistant in various undergraduate and graduate courses at the Department of Computer Science, University of Crete, including robotics, distributed systems, and computer organization.
- 1998-2001 Throughout the elaboration of his PhD thesis XZ has been a teaching assistant in the courses of computer vision and advanced topics in computer vision, at the Department of Computer Science, University of Crete.
- 1998 For one semester, XZ gave lectures on the Java programming language to colleagues at the CMI-HTA of ICS - FORTH.

CO-SUPERVISION OF THESES AND PARTICIPATION IN THESES COMMITTEES

1. M. Zidianakis, “*Supporting young children in Ambient Intelligence environments*”, PhD, member of advisory committee, University of Crete, 2010 – present.
2. K. Tzevanidis, “*GPU-powered multi-camera 3D reconstruction based on optimized foreground detection*”, MSc, University of Crete, member of evaluation committee, 2010.
3. N. Partarakis, “*Using Ambient Intelligence technologies for producing and disseminating art*”, PhD, member of advisory committee, University of Crete, 2010 – present.
4. M. Antunes, “*Stereo from symmetry*”, PhD, member of advisory committee, University of Coimbra, 2010 – present.
5. K. Papoutsakis, “*Visual Object Tracking and Segmentation in a Closed Loop*”, MSc, University of Crete, member of evaluation committee, 2010
6. I. Oikonomidis, “*Deformable 2D shape matching based on shape context and dynamic programming*”, MSc, University of Crete, member of evaluation committee, 2010.
7. G. Floros, “*Vision based tracking of a 3D model of a human hand*”, MSc, member of evaluation committee, MSc, University of Crete, 2009.
8. A. Chatziargiriou, “*Digitization of 3D scenes with an uncalibrated camera*”, Department of Electrical Engineering, Aristotle University of Thessaloniki, co-supervision with professor M. Strintzis, 2006.
9. G. Kordelas, “*Fast and accurate digitization of 3D scenes*”, Department of Electrical Engineering, Aristotle University of Thessaloniki, co-supervision with professor M. Strintzis, 2005.
10. A. Gretistas & K. Taptas, “*Real-time stereoscopic reconstruction of surfaces using the GPU*”, Department of Electrical Engineering, Aristotle University of Thessaloniki, co-supervision with professor M. Strintzis, 2006.

11. M. Papara, “*Studying the stability of wet foams by combining electrical, optical and volumetric measurements*”, Department of computer Science, Aristotle University of Thessaloniki, technical co-supervision with associate professor T. D. Karapantsios, 2006.
12. E. Danoura, “*Dynamic phenomena during the detachment of bubbles from a thin tube*”, Department of computer Science, Aristotle University of Thessaloniki, technical co-supervision with associate professor T. D. Karapantsios. 2006.

WORK EXPERIENCE

- 2004-2007 Coordinator of informatics department, Tellogleion Art Foundation, Thessaloniki, Greece.
- 1999-2000 Part-time employment as a software engineer for the Research and Development department of FORTHnet S.A.
- 1994-1995 Part-time employment as a developer at the Multimedia Lab of the Computer Center of University of Crete.
- 1986-1987 Part-time employment as a technician at Apple Computers in Thessaloniki, Greece.

HONORS

- Best paper award for G. Manikis, V. Sakkalis, X. Zabulis, P. Karamaounas, A. Triantafyllou, S. Douma, C. Zamboulis, K. Marias, “*An Image Analysis Framework for the Early Assessment of Hypertensive Retinopathy Signs*”, International Conference on e-Health and Bioengineering, Iași, Romania, 24-26 November 2011.
- In 2010, the VECTOR project which XZ was participating was awarded with the Best Exhibit Award, which was sponsored by the Intel Company, at the ICT 2010 Event which was organized by the European Commission at Brussels (27-29 September 2010).
- In 2001 the “Manasaki” graduate scholarship was awarded to XZ. This scholarship is awarded annually to the best graduate student of each department, of the University of Crete.

PARTICIPATION IN FUNDED RESEARCH PROGRAMS

Agency	Title	Duration	Funding	Duties
ICS-FORTH	Dextrous Assembler Robot Working with Embodied Intelligence (DARWIN)	2011-2015	EU – IST	Participation
ICS-FORTH	Ambient Intelligence Programme	2007-present	ICS-FORTH (internally funded)	Participation
ICS-FORTH	Versatile Endoscopic Capsule for gastrointestinal Tumor Recognition and Therapy (VECTOR)	2007-2011	EU - IST	Participation
ICS-FORTH	Remote health and social care for independent living of isolated elderly with chronic (REMOTE)	2009-present (2012)	EU – IST	Participation
ICS-FORTH	Remote Accessibility to Diabetes Management and Therapy in Operational healthcare Regimes (REACTION)	2010-present (2013)	EU – IST	Participation
ICS-FORTH	An Intelligent Platform for Personalized Remote Monitoring of the Cardiac Patients with Electronic Implant Devices (iCARDEA)	2010-present (2013)	EU – IST	Participation
ITI-CERTH	Information Mechanism Based on Visual Localization	2007	GSRT	Participation
ITI-CERTH	M-DRAW. A Platform for the Development of Graphics for Wireless Mobile Telephony Devices	2005-2007	GSRT	Technical coordinator
Tellogleion Art Foundation	Multiple Utilization of Valuable Works and Archives of Modern Greek Art, via Informational and Educational Electronic Publications and the Internet	2005-2007	GSRT	Technical coordinator
ITI-CERTH	In-vivo embolic detector - phase II	2005-	ESA	Scientific consult
ITI-CERTH	Integrated Three-Dimensional Television - Capture, Transmission and Display - 3DTV	2004-2007	EU - IST	Participation
ICS-FORTH	Health Emergency Management and	1996-1998	EU - IST	Participation, graduate

	Coordination through Telematics Operational Resources			scholar
University of Pennsylvania	National Tele-Immersion Initiative	2002-2003	NSF	Participation
University of Pennsylvania	NSF Center of Excellence, Institute for Research in Cognitive Science, University of Pennsylvania	2001-2002	NSF	Participation
ICS-FORTH	Integrated Hospital Information System	1995-1996	GSRT	Participation, undergraduate scholar
ICS-FORTH	Trans-European Telecommunications Networks for Telemedicine	1996-1998	EU - IST	Participation, undergraduate scholar

PROFESSIONAL SERVICES AND ACTIVITIES

- ERCIM Working Group “*The Sensor Web*”, Member of Steering Committee.
- IEEE Communications Society, Technical Committee on Multimedia Communications, Interest Group, Key member.
- International Journal of Digital Multimedia Broadcasting, Hindawi Publications, Member of editorial board.
- “*Advances in 3DTV: Theory and Practice*”, Special Issue, Hindawi Publications, International Journal of Digital Multimedia Broadcasting, Volume 2010 (2010), Editor of special issue.
- 3DPVT 2006, International Symposium on 3D Data Processing, Visualization and Transmission, University of North Carolina, Chapel Hill, USA, June 14-16, 2006, Publications chair.
- 3DTV Conference, Capture Transmission and Display of 3D video, Kos, Greece, 7-9 May 2007, Publications chair.
- Co-organization of workshop in IEEE International Conference on Multimedia and Expo. “*Interactive Ambient Intelligent Multimedia Environments*”.
- ICME 2011, IEEE International Conference on Multimedia and Expo – Publications chair.
- Special Session, “*Perceptual Factors in 3D TV*”, in the 3DTV Conference, Kos, Greece, 7-9 May 2007, co-organizer with Anup Basu, University of Alberta.
- General Secretariat for Research and Technology of Greece, 2008 – Project reviewer.
- University of Patras, Karatheodoris Programme, 2010 – Project Reviewer.
- Image and Vision Computing, Elsevier – Reviewer.
- Computer Vision and Image Understanding, Elsevier – Reviewer.
- Multimedia Tools and Applications, Kluwer Academic Publications – Reviewer.
- Pattern Recognition Letters, Elsevier – Reviewer.
- Interacting with Computers, Elsevier – Reviewer.
- International Journal of Machine Learning and Cybernetics, Elsevier – Reviewer.
- IEEE Signal Processing Letters – Reviewer.
- IEEE Transactions on Multimedia Journal – Reviewer.

- Journal of Virtual Reality and Broadcasting, Dusseldorf University of Applied Sciences – Reviewer.
- Multimedia Tools and Applications – Reviewer.
- Journal of Neuroscience Methods – Reviewer.
- Journal of Computer Science and Technology – Reviewer.
- KSII Transactions on Internet and Information Systems – Reviewer.
- IROS 2011, IEEE/RSJ International Conference on Intelligent Robots and Systems – Reviewer.
- CGI 2011, Computer Graphics International – Reviewer.
- ISVC 2008-2012, International Symposium on Visual Computing – Reviewer.
- ICIP 2008-2012, International Conference in Image Processing – Reviewer.
- ICCV 2009-2011, International Conference in Computer Vision – Reviewer.
- CVPR 2006-2011, IEEE Computer Vision and Patter Recognition – Reviewer.
- MED 2011, Mediterranean Conference on Control and Automation – Reviewer.
- 3DTV Conference, 2007-2011. Capture Transmission and Display of 3D Video – Reviewer.
- 3DPVT 2006-2010, International Symposium on 3D Data Processing, Visualization and Transmission – Reviewer.
- DSP 2009, International Conference on Digital Signal Processing – Reviewer.
- OMNIVIS 2008, Omnidirectional Vision, Camera Networks and Non-classical Cameras – Reviewer.
- AIME 2001, Conference on Artificial Intelligence in Medicine – Reviewer.
- ISCV 2010 – Conference session chair.
- 3DTV Conference 2007 – Conference session chair.
- 3DPTV 2006 – Conference session chair.

TECHNICAL EXPERIENCE AND DEMONSTRATORS

- Project management and technical coordination of an exhibition of prototypical interactive systems with subjects drawn from ancient Macedonia, at the Archaeological Museum of Thessaloniki, with title “*Macedonia from fragments to pixels*”. <http://www.makedonopixels.org/>
- K. Tzevanidis, X. Zabulis, T. Sarmis, P. Koutlemanis, N. Kyriazis, A. Argyros, “From Multiple Views to Textured 3D Meshes: a GPU-powered Approach”, Technical Demo, European Conference in Computer Vision, 2010.
- A real-time system for indoors tracking of persons aiming the exploration of large-scale museum artifacts through non-instrumented, location-based, multi-user interaction.
- A trinocular stereoscopic imaging device for the 3D imaging of psoriatic lesions, 2010, in collaboration with the Department of Dermatology, University of Crete.
- A system for image analysis for the determination of size distribution, shape, motion of particles in densely concentrated samples, 2007, in collaboration with Division of Chemical Technology, School of Chemistry, Aristotle University of Thessaloniki. The system was furthermore utilized by the Department of Mining and Minerals Engineering, Virginia Polytechnic Institute and State University.
- An image analysis system for the measurement of retinal vessel width, in collaboration with the 2nd Propaedeutic Dept Internal Medicine, Aristotle University of Thessaloniki, Hippokration Hospital, Thessaloniki, School of Medicine, Aristotle University of Thessaloniki.
- Technical experience in parallel computing, on a 2400 CPU system at the Pittsburg Supercomputing Center, during 2002-2004, for the real-time reconstruction of a scene from multiple images, in the context of a tele-immersion application. The system was presented in the “Bandwidth Challenge” of the Supercomputing Conference, Baltimore, 2002. More recent experience, is related to GPGPU programming.

- An integrated system for forwarding email to mobile phones using SMS messages, during 1999-2000, in the context of work for FORTHnet S.A.
- Design and implementation of software infrastructures for the provision of Web services and distributed operating systems. Obtained through work in CMI-HTA of ICS FORTH, and FORTHNET S.A., during 1998-2000. Designed and implemented the WebOnCOLL infrastructure for real-time medical WWW services. The technology was also utilized by FORTHnet S.A. for the provision of commercial services names as “Virtual Office”.
- Implementation of a Java programming interface for the Semantic Index System (SIS), developed and distributed commercially by the Information Systems Laboratory of ICS-FORTH.

LANGUAGES

Native in Greek. Excellent command of the English language, First Certificate in English, University of Cambridge. Simple command of the French language.

PUBLICATIONS

Dissertations

“Perceptually Relevant Mechanisms for the Description and Retrieval of Visual Information”, Doctoral Dissertation. Department of Computer Science. University of Crete. September 2001. Supervisor: Professor Stelios C Orphanoudakis.

“Use of autonomous software entities in the resource management of an emergency prehospital medical system”, Master Thesis, Department of Computer Science. University of Crete, June 1998. Supervisor: Professor Stelios C Orphanoudakis.

“Porting the functionality I²C over the World Wide Web”, Diploma Thesis, Department of Computer Science. University of Crete, June 1996. Supervisor: Professor Stelios C Orphanoudakis.

Editorial

International Journal of Digital Multimedia Broadcasting, Volume 2010 (2010), Article ID 579514, 2 pages, doi:10.1155/2010/579514, Editorial, *“Advances in 3DTV: Theory and Practice”*, **X. Zabulis**, I. Cheng, N. Grammalidis, G. A. Triantafyllidis, and P. Zanuttigh.

Contributions to books

1. **X.Zabulis**, H. Baltzakis, A. A. Argyros, *“Vision-based Hand Gesture Recognition for Human Computer Interaction”*, Chapter 34, in "The Universal Access Handbook", Lawrence Erlbaum Associates, Inc. (LEA), Series on "Human Factors and Ergonomics", ISBN: 978-0-8058-6280-5, pp 34.1 – 34.30, Jun 2009.
2. **X. Zabulis**, *“Utilization of the texture uniqueness cue in stereo”*, pp 59-83 (ch 4), in Three-Dimensional Television: Capture, Transmission, and Display, editors Haldun M. Ozaktas and Levent Onural, ISBN 978-3-540-72531-2, Springer Verlag, 2008.
3. N. Kelshikar, **X. Zabulis**, J. Mulligan, K. Daniilidis, V. Sawant, S. Sinha, T. Sparks, S. Larsen, H. Towles, K. Mayer-Patel, H. Fuchs, J. Urbanic, K. Benninger, R. Reddy, and G. Huntoon, *“Real-Time Terascale Implementation of Tele-immersion”* pp 33 – 42, Lecture Notes in Computer Science, Volume 2660, ISSN: 0302-9743 2003, Springer-Verlag, Heidelberg, 2003.
4. **X. Zabulis**, and S. Orphanoudakis, *“Image Content Analysis and Description”*, in State-of-the-Art in Content-Based Image and Video Retrieval, pp 1-21, Series: Computational Imaging and Vision, editors H. Burkhardt, H.-P. Kriegel and R. Veltkamp, ISBN 1-4020-0109-6, Kluwer Academic Publishers, October 2001.

Scientific journals

1. **X. Zabulis**, D. Grammenos, T. Sarmis, K. Tzevanidis, P. Paderleris, P. Koutlemanis, A. Argyros, *“Multicamera human detection and tracking supporting natural interaction with large-scale displays”*, Machine Vision and Application, published online February 2012, DOI: 10.1007/s00138-012-0408-6 .
2. G. Margetis, **X. Zabulis**, P. Koutlemanis, M. Antona, and C. Stephanidis, *“Augmented interaction with physical books in an Ambient Intelligence learning environment”*. Multimedia Tools and Applications, published online January 2012, DOI: 10.1007/s11042-011-0976-x.

3. M. Papara, **X. Zabulis**, T. D. Karapantsios, “*Container effects on the free drainage of wet foams*”, *Chemical Engineering Science*, 64:1404 – 1415, 2009.
4. **X. Zabulis** and G. Floros, “*Modulating the shape and size of backprojection surfaces to improve accuracy in volumetric stereo*”, *EURASIP Journal on Advances in Signal Processing*, Volume 2009, Issue 1, 2009, Article ID 129789, ISSN:1110-8657, doi:10.1155/2009/129789.
5. A. Alatan, Y. Yemez, U. Güdükbay, **X. Zabulis**, K. Müller, Ç. Erdem, C. Weigel, and A. Smolic, “*Scene Representation Technologies for 3DTV - A Survey*”, *IEEE Transactions on Circuits and Systems for Video Technology*, Special Issue on Multi-view Video Coding and 3DTV, 17(11):1587-1605, 2007.
6. E. Stoykova, A. Alatan, P. Benzie, N. Grammalidis, S. Malassiotis, J. Ostermann, S. Piekh, V. Sainov, C. Theobalt, T. Thevar and **X. Zabulis**, “*3D Time-varying Scene Capture Technologies - A Survey*”, *IEEE Transactions on Circuits and Systems for Video Technology*, Special Issue on Multi-view Video Coding and 3DTV, 17(11):1568-1586, 2007.
7. **X. Zabulis**, M. Papara, A. Chatziargyriou, T. D Karapantsios, “*Detection of densely dispersed spherical bubbles in digital images based on a template matching technique. Application to wet foams*”, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 309(1-3) : 96-106, 2007.
8. **X. Zabulis**, J. Sporrying, S. C. Orphanoudakis, “*Perceptually Relevant and Piecewise Linear Matching of Silhouettes*”, *Pattern Recognition*, 38:75-93, 2005 (to appear).
9. **X. Zabulis**, B. T. Backus. “*The Starry Night texture*”, *Journal of the Optical Society of America A*, 21(11):2049-2060, November 2004.
10. J. Mulligan, **X. Zabulis**, N. Kelshikar, and K. Daniilidis, “*Stereo-based Environment Scanning for Immersive Telepresence*”, *IEEE Transactions on Circuits and Systems for Video Technology*, Special Issue on Immersive Telepresence, 14(3):304-320, March 2004. ISSN: 1051-8215.
11. C. Chronaki, D. G. Katehakis, **X. Zabulis**, M. Tsiknakis, S. C. Orphanoudakis, “*WebOnCOLL: Medical Collaboration in Regional Healthcare Networks*”, *IEEE Transactions on Information Technology in Biomedicine*, 1(4):257-269, December 1997.
12. C. Chronaki, **X. Zabulis**, and S.C. Orphanoudakis, “*I²Cnet Medical Image Annotation Service*”, *Medical Informatics*, Special Issue, 22(4), 337-347, August 1997.

In proceedings of refereed conferences and workshops

1. **X. Zabulis**, P. Koutlemanis, H. Baltzakis, D. Grammenos, “*Multiview 3D Pose Estimation of a Wand for Human-Computer Interaction*”, *International Symposium on Visual Computing*, Las Vegas, Nevada, USA, 104-115, 2011.
2. G. Manikis, V. Sakkalis, **X. Zabulis**, P. Karamaounas, A. Triantafyllou, S. Douma, C. Zamboulis, K. Marias, “*An Image Analysis Framework for the Early Assessment of Hypertensive Retinopathy Signs*”, *International Conference on e-Health and Bioengineering*, Iași, Romania, 24-26 November 2011 (Best conference paper award).
3. D. Tsakiris, M. Sfakiotakis, **X. Zabulis**, and N. Pateromichelakis, “*Visual Servoing for Robotic Endoscopic Capsules*”, *IEEE/RSJ International Conference on Intelligent Robots and Systems*, Workshop: Image-Guided Medical Robotic Interventions, September 25, 2011, San Francisco, USA.
4. D. Grammenos, **X. Zabulis**, D. Michel, T. Sarmis, G. Georgalis, K. Tzevanidis, A. A. Argyros, C. Stephanidis, “*Design and Development of Four Prototype Interactive Edutainment Exhibits for Museums*”, *international conference on Universal access in human-computer interaction: context*

diversity, 173-182, 2011.

5. M. Sfakiotakis, **X. Zabulis**, and D.P. Tsakiris, "Endoscopic capsule line-of-sight alignment by visual servoing". Extended abstract at the 7th Intl. Conf. on Wearable Micro and Nano Technologies for Personalized Health (pHealth 2010), Berlin, Germany, May 26-28, 2010.
6. M. Antunes, J. Barreto and **X. Zabulis**. "*Plane Surface Detection and Reconstruction using Induced Stereo Symmetry*". In Proceedings of the British Machine Vision Conference, pages 97.1-97.11. 2011.
7. G. Margetis, P. Koutlemanis, X. Zabulis, M. Antona, C. Stephanidis, "*A smart environment for augmented learning through physical books*", IEEE International Conference on Multimedia and Expo, Barcelona, Spain. July 11 to 15, 2011.
8. D. Grammenos, **X. Zabulis**, D. Michel, A. Argyros, "*Augmented reality interactive exhibits in Cartographic Heritage: an implemented case-study open to the general public*", Digital Approaches to Cartographic Heritage, The Hague, Netherlands, 7 – 8 April 2011.
9. D. Grammenos, D. Michel, **X. Zabulis**, A.A. Argyros, "*PaperView: Augmenting Physical Surfaces with Location-Aware Digital Information*" in Proceedings of the ACM SIGCHI Conference on Tangible Embedded, Embodied Interaction, TEI'2011, pp. 57-60, Funchal, Portugal, Jan. 23-26, 2011.
10. **X. Zabulis**, T. Sarmis, K. Tzevanidis, P. Koutlemanis, D. Grammenos, and A. A. Argyros, "*A platform for monitoring aspects of human presence in real-time*", International Symposium on Visual Computing, Las Vegas, Nevada, USA, November 29 - December 1, 2010.
11. **X. Zabulis**, D. Grammenos, T. Sarmis, K. Tzevanidis, A. A. Argyros, "*Exploration of large-scale museum artifacts through non-instrumented, location-based, multi-user interaction*", In VAST International Symposium on Virtual Reality, Archaeology and Cultural Heritage. Palais du Louvre, Paris, France, 21-24 September 2010.
12. K. Tzevanidis, **X. Zabulis**, T. Sarmis, P. Koutlemanis, N. Kyriazis, and A. Argyros, "*From multiple views to textured 3D meshes: a GPU-powered approach*", In Workshops of European Conference on Computer Vision, Crete, Greece, 5-11 September 2010.
13. M. Sfakiotakis, **X. Zabulis**, N. Pateromichelakis and D.P. Tsakiris, "*Techniques for assisting motion and optical guidance of endoscopic capsules*", Proc. 2nd Hellenic Robotics Conference (*HEROC 2010*), Patras, Greece, December 9-10, 2010 (in Greek).
14. A. Kokolakis, K. Lasithiotakis, P. Psycharakis, K. Krasagakis, S. Kruger-Krasagakis, **X. Zabulis**, T. Sarmis, G. Georgiadis, C. Stephanidis, A. Manios, A. Tosca, "*A Pioneer Approach in 3-D Imaging of Psoriatic Lesions*", Symposium of the Greek Society for Dermatology, Herakleion, Greece, 23-24 January 2010.
15. **X. Zabulis**, T. Sarmis, A. A. Argyros, "*3D head pose estimation from multiple distant views*", British Machine Vision Conference, London, UK, 7-10 September, 2009.
16. D. Grammenos, **X. Zabulis**, A. A. Argyros, C. Stephanidis, "*FORTH-ICS internal RTD Programme 'Ambient Intelligence and Smart Environments'*", European Conference on Ambient Intelligence, November 18-21 2009, Salzburg, Austria.
17. D. Grammenos, Y. Georgalis, N. Partarakis, **X. Zabulis**, T. Sarmis, S. Kartakis, P. Turlakis, A. Argyros and C. Stephanidis, "*Rapid Prototyping of an AmI-Augmented Office Environment Demonstrator*", in "Human-Computer Interaction. Ambient, Ubiquitous and Intelligent Interaction", Lecture Notes in Computer Science, Springer Berlin/Heidelberg, ISSN 0302-9743, Vol. 5612/2009, pp. 397-406, Jul 14, 2009.
18. **X. Zabulis**, T. Sarmis, D. Grammenos, A. A. Argyros, "*A multicamera vision system supporting the development of wide-area exertainment applications*", IAPR Conference on Machine Vision

- Applications, May 20-22, 2009, Hiyoshi Campus, Keio University, Japan.
- 19.D. Michel, A. A. Argyros, D. Grammenos, **X. Zabulis**, T. Sarmis, "*Building a multi-touch display based on computer vision techniques*", IAPR Conference on Machine Vision Applications, May 20-22, 2009, Hiyoshi Campus, Keio University, Japan.
 - 20.**X. Zabulis**, A. A. Argyros, D. Tsakiris, "*Lumen Detection for Capsule Endoscopy*", IEEE/RSJ International Conference on Intelligent Robots and Systems, September 22-26, 2008, Acropolis Convention Center, Nice, France.
 - 21.**X. Zabulis**, M. Sfakiotakis, D. Tsakiris, "*Effects of Vibratory Actuation on Endoscopic Capsule Vision*", International Conference of the IEEE Engineering in Medicine and Biology Society, 2008.
 - 22.C. Stephanidis, A. A. Argyros, D. Grammenos, **X. Zabulis**, "Pervasive Computing @ ICS-FORTH", International Conference on Pervasive Computing, May 19-22, 2008 in Sydney, Australia.
 - 23.**X. Zabulis**, N. Grammalidis, and G. D. Floros, "*An efficient and memory-conserving implementation of multi-view stereo for wide-area reconstruction*", 3DPVT 2006, International Symposium on 3D Data Processing, Visualization and Transmission, Georgia Tech, Atlanta GA, 2008.
 - 24.Y.Bastanlar, N. Grammalidis, **X. Zabulis**, E. Yilmaz, Y. Yardimci, G. Triantafyllidis, "*3D Reconstruction for a Cultural Heritage Virtual Tour System*", International Society for Photogrammetry and Remote Sensing, Beijing, China, July 2008.
 - 25.**X. Zabulis**, N. Grammalidis, Y. Bastanlar, E. Yilmaz, Y. Yardimci, "*3D Scene Reconstruction Based on Robust Camera Motion Estimation and Space Sweeping for a Cultural Heritage Virtual Tour System*", 3DTV-CON, The True Vision: Capture, Transmission and Display of 3D Video. Pages: 53-56, 2008.
 - 26.C. Cigla, **X. Zabulis** and A. Alatan, "*Region-Based Dense Depth Extraction From Multi-View Video*", International Conference on Image Processing, San Antonio, Texas, U.S.A., September 16-19 2007.
 - 27.**X. Zabulis**, M. Papara and T. D. Karapantsios, "*A composite image analysis system for the determination of size distribution in densely dispersed bubbles/drops*", Conference of the European Colloid and Interface Society, Geneva, Switzerland, September 10-14, 2007.
 - 28.M. Papara, **X. Zabulis**, E. Kalogianni and T. D. Karapantsios, "*How the Curvature and the Hydrophilic/Hydrophobic Nature of the Container Walls Affect the Drainage of Wet Foams*" 21st Conference of the European Colloid and Interface Society, Geneva, Switzerland, September 10-14, 2007.
 - 29.**X. Zabulis** and G. D. Floros, "*Modulating the size of backprojection surface patches, in volumetric stereo, for increasing reconstruction accuracy and robustness*", 3DTV-Conference 2007, Kos, Greece, May 7-9, 2007.
 - 30.C. Cigla, **X. Zabulis** and A. Alatan, "*Segment-based stereo-matching via plane and angle sweeping*", 3DTV-Conference 2007, Kos, Greece, May 7-9, 2007.
 - 31.**X. Zabulis** and G. Kordelas, "*Efficient, Precise, and Accurate Utilization of the Uniqueness Constraint in Multi-View Stereo*", 3DPVT 2006, International Symposium on 3D Data Processing, Visualization and Transmission, University of North Carolina, Chapel Hill NC, June 14-16, 2006.
 - 32.**X. Zabulis**, G. Kordelas, K. Mueller, A. Smolic, "*Increasing the accuracy of the space-sweeping approach to stereo reconstruction, using spherical backprojection surfaces*", International Conference on Image Processing, Atlanta GA, U.S.A., 8-11 October 2006.
 - 33.G. Litos, **X. Zabulis**, G. Triantafyllidis, "*Synchronous Image Acquisition based on Network Synchronization*", IEEE Workshop on Three-Dimensional Cinematography (in conjunction with IEEE Computer Vision and Pattern Recognition), New York NY, June 22, 2006.

34. **X. Zabulis**, I. Parissi and T. D. Karapantsios, "*Detection of densely dispersed spherical bubbles in digital images based on a template matching technique.*", European Conference on Foams, Emulsions and Applications, Potsdam, Germany, July 2-6, 2006.
35. **X. Zabulis**, U. Topay and A. Alatan, "*Efficient, precise, and accurate utilization of the uniqueness constraint in self-calibrated stereo*", Workshop On Immersive Communication And Broadcast Systems, Berlin, Germany, 27-28 October, 2005.
36. K. Mueller, **X. Zabulis**, A. Smolic, and T. Wiegand, "*Evaluation of 3D reconstruction using multiview backprojection*", Workshop On Immersive Communication And Broadcast Systems, Berlin, Germany, 27-28 October, 2005.
37. **X. Zabulis**, A. Patterson, and K. Daniilidis. "*Digitizing Archaeological Excavations from Multiple Views*", 3Digital Imaging and Modeling, Washington, DC, U.S.A., June 13-16, 2005.
38. **X. Zabulis** and K. Daniilidis. "*Multi-camera reconstruction based on surface normal estimation*", IEEE International Symposium on 3D Data Processing, Visualization and Transmission, Thessaloniki, Greece, September 6-9, 2004.
39. **X. Zabulis**, J. P. Barreto, N. Kelshikar, R. Molana, and K. Daniilidis. "*Volumetric multi-camera scene acquisition with partially metric calibration for wide-area tele-immersion*", NSF Lake Tahoe Workshop on Collaborative Virtual Reality and Visualization, Tahoe City CA, U.S.A, October 26-28, 2003.
40. N. Kelshikar, **X. Zabulis**, J. Mulligan, K. Daniilidis, V. Sawant, S. Sinha, T. Sparks, S. Larsen, H. Towles, K. Mayer-Patel, H. Fuchs, J. Urbanic, K. Benninger, R. Reddy, and G. Huntoon. "*Real-time Terascale Implementation of Tele-immersion*", Terascale Performance Analysis Workshop (in conjunction with International Conference on Computational Science), pp 33-42, June 2 - 4, Melbourne 2003.
41. **X. Zabulis** and B. T. Backus, "*The Starry Night texture and its use to isolate depth cues*" (abstract #235) pp 85, Annual Meeting of Vision Sciences Society, Sarasota FL, U.S.A., May 10-15, 2002, also in Journal of Vision 2(7) Abstract 234 DOI 10.1167/2.7.234 ISSN 1534-7362.
42. B. T. Backus, D. Matza-Brown, and **X. Zabulis**, "*A re-examination of the Enright illusion: Distance from motion and stereo?*" (Abstract #407) pp 143, Annual Meeting of Vision Sciences Society, Sarasota FL, U.S.A., May 10-15, 2002, also in Journal of Vision 2(7) Abstract 404 DOI 10.1167/2.7.404 ISSN 1534-7362.
43. **X. Zabulis**, J. Sporning, and S. Orphanoudakis, "*Scale Summarized and Focused Browsing of Primitive Image Content*", pp. 269-278, Visual 2000, Lyon, France 2000, also in Lecture Notes in Computer Science 1929 Springer 2000, R. Laurini (Ed.), ISBN 3-540-41177-1.
44. J. Sporning, **X. Zabulis**, P.E. Trahanias, and S. Orphanoudakis, "*Shape Similarity by Piecewise Linear Alignment*", pp. 306-311, Asian Conference on Computer Vision, Taipei, Taiwan, January 2000.
45. C. E. Chronaki, **X. Zabulis**, D.G. Katehakis, A. Giannopoulos, N. Stathiakis, M. Tsiknakis, P.J. Lees, E.N. Simantirakis, P.E. Vardas, and S.C. Orphanoudakis, "*WebOnCOLL-enabled Remote Cardiology Consultation for Suspected Myocardial Infarction*", pp. 41-43, Mednet'98, London, England, 16-19 November 1998.
46. C. Chronaki, **X. Zabulis**, S. C. Orphanoudakis, "*Maintaining Image Annotations in I2Cnet*", pp. 141-145, EuroPACS, ICS-FORTH, Crete, Greece, October 3-5, 1996.
47. C. Chronaki, **X. Zabulis**, N. Stathiakis, E. Leich, D. Katehakis, M. Tsiknakis and S. C. Orphanoudakis, "*A Web - Based Environment for Medical Collaboration in a Regional Health Care Network*", pp. 656-661, Computer Assisted Radiology 97, Berlin, June 1997.

48. **X. Zabulis**, C. Chronaki, and S. Orphanoudakis, "*The I2Cnet Service Architecture Paradigm*", pp. 596-600, Medical Informatics Europe, Porto Carras, Greece, May 25-29, 1997, also in MIE97, Amsterdam: IOS Press, 1997.

Other

1. **X. Zabulis**, D. Grammenos, A. A. Argyros, D. Sifakis and C. Stephanidis, "*Macedonia: from fragments to Pixels*", ERCIM NEWS, 25-26, July 2011.
2. A. Kokolakis, K. Lasithiotakis, S. Psycharakis, K. Krasagakis, S. Kruger-Krasagakis, **X. Zabulis**, T. Sarmis, P. Panteleris, G. Georgiadis, G. Karatzanis, C. Stephanidis, A. Tosca, "A Novel Surface 3-D Imaging System for Psoriatic Lesions", 2nd Panhellenic Symposium of Investigative Dermatology.
3. Karamaounas, P., **Zabulis, X.** (2011). "*Capillaroscope*". Technical Report FORTH-ICS / TR-417 2011.
4. Karamaounas, P., Manikis, G., **Zabulis, X.** (2011). "*Retinal Images Analyzer*", Technical Report FORTH-ICS / TR-417 2011.
5. M. Sfakiotakis, X. Zabulis, N. Pateromichelakis and D.P. Tsakiris, "*Techniques for assisting motion and optical guidance of endoscopic capsules*". Proc. 2nd Hellenic Robotics Conference (HEROC 2010), Patras, Greece, December 9-10, 2010 (in Greek).
6. C. Stephanidis, **X. Zabulis**, D. Grammenos, M. Sifakis, (2010, 19 November) "*Ambient Intelligent Technologies and their application in the field of Culture: Premiere in the Archaeological Museum of Thessaloniki*". Workshop on Museological trends and approaches. The recent Italian and Greek experience, Thessaloniki, Greece.
7. T. Sarmis and **X. Zabulis** and A. A. Argyros, "*A checkerboard detection utility for intrinsic and extrinsic camera cluster calibration*", Technical Report FORTH-ICS / TR-397— August 2009.
8. T. Sarmis, **X. Zabulis** and A. A. Argyros, "*A Software Platform for the Acquisition and Online Processing of Images in a Camera Network*", ERCIM NEWS, 45-46, January 2009.
9. **X. Zabulis** and B. T. Backus, "*The Starry Night Texture*", University of Pennsylvania, Institute for Research in Cognitive Science Technical Report No. IRCS-04-01.
10. **X. Zabulis** and J. Sparring and S. C. Orphanoudakis, "*Scale Summarized and Focused Browsing of Primitive Image Content*", Institute of Computer Science- FORTH, TR100-0271, May 2000.
11. C. Chronaki, **X. Zabulis**, M. Tsiknakis and S. C. Orphanoudakis, "*Web - based Medical Services in the Regional Health Network of Crete*", ERCIM NEWS April 1997 No 29 pp. 28-29

INVITED TALKS AND PRESENTATIONS

- 10 November 2011, World Usability day celebration, "Beyond the desktop: Designing interactive museum exhibits that combine learning with entertainment". Cyprus University of Technology, Limassol, Cyprus.
- 19 November 2010, Stephanidis, C., X. Zabulis, D. Grammenos, & Sifakis, M. "Ambient Intelligent Technologies and their application in the field of Culture: Premiere in the Archaeological Museum of Thessaloniki". Workshop on Museological trends and approaches. The recent Italian and Greek experience, Thessaloniki, Greece.
- 15 April 2009, University of Coimbra, Department of Electrical Engineering, Invited talk, "3D head pose estimation from multiple distant views".
- 19 May 2008, "FORTH-ICS internal RTD Programme", meeting of the Sensor Web ERCIM working group, University College Dublin.

- 16 September 2005: Presentation of Call 172 of the Ministry of Finances on “Documentation, Development and Promotion of Greek Civilization” “Τεκμηρίωση, Αξιοποίηση και Ανάδειξη του Ελληνικού Πολιτισμού”, Concert Hall, Thessaloniki (in Greek).
- 11 November 2003: Invited talk at Informatics department, Aristotle University of Thessaloniki, “Multi-camera reconstruction based on surface normal estimation and best viewpoint selection”.
- 29 October 2003: Invited talk at Institute of Computer Science, Foundation for Research and Technology Hellas (ICS-FORTH), “Multi-camera reconstruction based on surface normal estimation and best viewpoint selection”.
- 18 - 25, October, 2002: Presentation of a real-time tele-immersion system at the “Bandwidth Challenge” in conjunction with Super Computing 2002 Baltimore, USA.
- 11 December, 2001: Invited talk at GRASP Laboratory, University of Pennsylvania, “Perceptually Relevant Retrieval of Visual Information”.
- 15 June, 2001: Invited talk at European Centre of Excellence CWI, □Amsterdam, The Netherlands, “Description, Management, and Retrieval of Visual Information”.
- 14 May, 2001: Invited talk at University of Pittsburgh, Computer Science Department “An introduction to linked lists”.
- 15 May, 2001: Invited talk at Neurobiology Department, Duke University, Durham, USA, “Visual Information Management and Retrieval”.
- March 2000, Talk at EU network meeting VIRGO TMR Genoa, Italy, “Scale-Summarized Representation”.
- 5 - 10 December 1999: participation and presentation of part of PhD thesis at Computer Science seminar in Dagstuhl, Germany, No. 99491, “Content-Based Image and Video Retrieval”.
- April 1997 presentation of part of MSc thesis in meeting of the EU project HECTOR in Milan, Italy.