

Curriculum Vitae for Xenophon Zabulis

Date of birth: 27 October 1973

Citizenship: Greek

Marital Status: Married, 1 child.

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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** *Post doctorate Fellow, Institute of Computer Science of the Foundation for Research and Technology – Hellas (ICS-FORTH)*
- 2004-2007** *Post doctorate 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** *Post doctorate Fellow, General Robotics, Automation, Sensing and Perception Laboratory, Department of Computer and Information Science, University of Pennsylvania*
- 2001-2002** *Post doctorate 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

- 2009-2019 Visiting professor to the Computer Science Department - University of Crete, course: “Programming”.
- 2011-2012 Teaching “Computational Vision for Interactive Application”, summer school at FORTH, for visiting graduate students of the University of York.
- 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 his laboratory colleagues at the CMI-HTA of ICS - FORTH.

CO-SUPERVISION OF THESES AND PARTICIPATION IN THESES COMMITTEES

1. A. Qammaz, “*A Hybrid Method for 3D Pose Estimation of Personalized Human Body Models*”, MSc, member of evaluation committee, Computer Science Department, University of Crete, 2018.
2. V. Nikodemou, “*Single Shot 3D Hand Pose Estimation Using Radial Basis Function Networks*”, MSc, member of evaluation committee, Computer Science Department, University of Crete, 2017.
3. G. Margetis, “*Interacting with augmented physical printed matter in ambient intelligence environments: the InPrinted framework*”, PhD, member of defense committee, Computer Science Department, University of Crete, 2017.
4. M. Korozi, “*Empowering Intelligent Classrooms with Attention Monitoring and Intervention Cycles*”, PhD, member of defense committee, Computer Science Department, University of Crete, 2017.
5. K. Roditakis, “*Generative 3D Hand Tracking with Spatially Constrained Pose Sampling*”, MSc, Computer Science Department, University of Crete, member of evaluation committee, 2017.
6. V. Manousaki, “*Evaluating design options of Bag-of Visual-Words based methods for action classification*”, MSc, University of Crete, member of evaluation committee, 2017.
7. C. Hernandez-Matas, “*Retinal image registration*”, PhD, Co-supervision with Antonis A. Argyros, Computer Science Department, University of Crete, Thesis co-supervisor, 2014-2017.
8. E. Papadaki, “*CocinAR: An adaptable multimodal Augmented Reality system for developing cooking skills in children with cognitive impairments*”, MSc, Computer Science Department, University of Crete, member of evaluation committee, 2017.
9. J. C. Wigdahl, “*Retinal Vascular Measurement Tools for Diagnostic Feature Extraction*”, PhD, Computer Science Department, University of Padova, member of defense committee, 2016.

10. N. Kazepis, "*FIRMA: A Development Framework for Elderly- Friendly Interactive Multimodal Applications for Assisted Robots*", PhD, Computer Science Department, University of Crete, member of defense committee, 2015.
11. G. Galanakis, "*Tracking, re-identification and interaction using RGB-D sensors in Ambient Intelligence environments*", Master Thesis Advisor, Computer Science Department, University of Crete, 2013-2015.
12. S. Markou, "*Full-body pose tracking under severe occlusions – the Top View Reprojection approach*", PhD, Computer Science Department, University of Crete, member of defense committee, 2015.
13. V. Katikaridou, "*Enhancing the accuracy of extrinsic calibration in a cluster of RGBD cameras*", Diploma Thesis Advisor, Computer Science Department, University of Crete, 2014.
14. J. Bhattacharyya, "*An Active Stereo-Panoramic Approach for Augmented Reality*", external member of the Board of Examiners of PhD thesis, National Institute of Technology Durgapur, 2013.
15. P. Katsifarakis, "*Head gesture recognition using a depth camera*", Diploma Thesis Advisor, Computer Science Department, University of Crete, 2013.
16. J. Perron, "*Assembly Verification*", internship at ICS-FORTH in collaboration with University of York, 2012.
17. M. Zidianakis, "*Supporting young children in Ambient Intelligence environments*", PhD, member of advisory committee, Computer Science Department, University of Crete, 2010 – 2014.
18. N. Partarakis, "*Using Ambient Intelligence technologies for producing and disseminating art*", PhD, member of advisory committee, Computer Science Department, University of Crete, 2010 – 2013.
19. M. Antunes, "*Stereo from symmetry*", PhD, external member of advisory committee, Computer Science Department, University of Coimbra, 2010.
20. K. Tzevanidis, "*GPU-powered multi-camera 3D reconstruction based on optimized foreground detection*", MSc, Computer Science Department, University of Crete, member of evaluation committee, 2010.
21. K. Papoutsakis, "*Visual Object Tracking and Segmentation in a Closed Loop*", MSc, Computer Science Department, University of Crete, member of evaluation committee, 2010
22. I. Oikonomidis, "*Deformable 2D shape matching based on shape context and dynamic programming*", MSc, University of Crete, member of evaluation committee, 2010.
23. G. Floros, "*Vision based tracking of a 3D model of a human hand*", MSc, member of evaluation committee, MSc, Computer Science Department, University of Crete, 2009.
24. 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.
25. G. Kordelas, "*Fast and accurate digitization of 3D scenes*", Department of Electrical Engineering, Aristotle University of Thessaloniki, co-supervision with professor M. Strintzis, 2005.
26. 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.
27. 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.
28. E. Danoura, "*Dynamic phenomena during the detachment of bubbles from a thin tube*", Department

of Chemistry, Aristotle University of Thessaloniki, technical co-supervision with associate professor T. D. Karapantsios. 2006.

WORK EXPERIENCE

- 2004-2007 Informatics team leader, 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

1. Distinction for oral presentation for P. Anyfanti, A. Triantafyllou, E. Gkaliagkousi, **X. Zabolis**, A. Lazaridis, S. Hatzimichailidou, S. Aslanidis, S. Douma, "*Αξιολόγηση Αγγειακής Ερήμωσης των Τριχοειδών Δέρματος σε Ασθενείς με Ρευματοειδή Αρθρίτιδα: Συσχέτιση με Δείκτες Φλεγμονής και Μακροκυκλοφορίας*", Πανελλήνιο Συνέδριο Υπέρτασης, Athens, 29-31 March 2018.
- First prize for oral presentation for P. Anyfanti, A. Triantafyllou, X. Zabolis, G. Triantafyllou, E. Gkaliagkousi, E. Gavriilaki, S. Douma, "*Συσχέτιση Του Λόγου Αρτηριών-Φλεβών Του Αμφιβληστροειδούς Με Αιμοδυναμικές Παραμέτρους σε Δείγμα Νεοδιαγνωσθέντων Υπερτασικών και Υγιών Ατόμων*", 15ο Πανελλήνιο Συνέδριο της Ελληνικής Εταιρείας Υπέρτασης, 5-7 March 2015, Thessaloniki, Greece (in Greek).
- Demonstrator "*Interactive Documents*" received the Gold Medal Award at the 2014 Taipei International Invention Show & Technomart.
- Demonstrator "*iEat: An interactive restaurant table*" received the Silver Medal Award at the 2014 Taipei International Invention Show & Technomart.
- Demonstrator "*Interactive Wall*" received the Platinum Award at the 2014 Taipei International Invention Show & Technomart.
- Demonstrator "*iEat: An interactive restaurant table*" received the Thailand Award for Best International Invention by the National Research Council of Thailand – NRCT in "2014 INST: The 10th Taipei International Invention Show & Technomart", Taipei, Republic of China (Taiwan).
- Demonstrator "*Interactive Documents*" at the booth of EU Project Medeat at the ITB Berlin Travel Trade Show 2014, which won the second place in the NGOs & Non-Profit Institutions category of the organized by the Cologne Business School.
- "Alberto Ferrari" Poster Award of the ESH for Hemodynamics Session, for P. Anyfanti, A. Triantafyllou, E. Gavriilaki, K. Petidis, A. Pырpasopoulou, G. Triantafyllou, A. Dimakopoulou, X. Zabolis, S. Aslanidis, E. Gkaliagkousi, S. Douma, "*Phenotyping the retinal microcirculation by use of impedance cardiography: association between early retinal alterations and hemodynamic profile*", presented in the Joint Meeting of the European Society of Hypertension (ESH) and International Society of Hypertension (ISH), June 13-16 Athens 2014.
- Distinction for the paper A. Triantafyllou, X. Zabolis, P. Anyfanti, E. Gavriilaki, E. Gkaliagkousi, A. Pырpasopoulou, V. Gkolias, G. Triantafyllou, B. Nikolaidou, C. Zamboulis, S. Aslanidis, S. Douma, "*Early and global estimation of microvascular target organ damage in hypertension by use of innovative software*", 2nd International Medical Olympiad, 18-20 October 2013, Thessaloniki,

Greece.

- First place of Young Investigator-in-Training Abstract Competition for A. Triantafyllou, M. Doumas, E. Gavriilaki, P. Anyfanti, X. Zabulis, E. Gkaliagkousi, K. Petidis, P. Karamaounas, V. Golias, A. Pyrpasopoulou, N. Lazaridis, C. Zamboulis and S. Douma, “*Correlation between retinopathy and hypertension phenotypes based on ambulatory blood pressure*”, presented in the Annual Scientific of American Society of Hypertension, 19-22 May 2012, New York, U.S.A. as an oral presentation.
- "Alberto Ferrari" Poster Award of the ESH for Small Vessels session, for A. Triantafyllou, X. Zabulis, P. Anyfanti, E. Gkaliagkousi, K. Petidis, E. Gavriilaki, A. Pyrpasopoulou, P. Karamaounas, V. Golias, B. Nikolaidou, M. Doumas, S. Douma, “*Retinopathy in Different Hypertension Phenotypes, Another Example of Target Organ Damage in Masked Hypertensives*”, presented in the 22nd European Meeting on Hypertension and Cardiovascular Protection, April 26-29, 2012, ICC London.
- 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	Representation and Preservation of Heritage Crafts (Mingei)	2018-2021	EU – H2020	Coordinator
ICS-FORTH	InterCONnected NEXt-Generation Immersive IoT Platform of Crime and Terrorism DetectiON, PredictiON, InvestigatiON, and PreventiON Services	2018-2021	EU – H2020	Scientist responsible for FORTH
ICS-FORTH	Digitation of the painting collection of the Municipality of Heraklion	2018	Municipality of Heraklion	Coordinator
ICS-FORTH	System for Monitoring Vital Signs in Senior Citizens (MyHealthWatcher)	2017-2019	Hellenic Foundation for Research and Innovation	Coordinator
ICS-FORTH	Culture and Technology: New technologies in the Research, Study, Documentation, and Access to information of Cultural Heritage Objects and Monuments (POLITEIA-II)	2018-2021	Hellenic Foundation for Research and Innovation	Participation
ICS-FORTH	Complex wetting phenomena (COWET)	2014-2017	EU – Marie Curie ITN	Outsourcer
ICS-FORTH	High performance avionics solution for advanced and complex GNC systems (HIPNOS)	2016-2017	ESA	Participation
ICS-FORTH	Retinal Vascular Modeling, Measurement and Diagnosis (REVAMMAD)	2013-2016	EU – Marie Curie ITN	Scientist responsible for FORTH
ICS-FORTH	Sparing Robotics Technologies for Autonomous Navigation Extension Activity (SEXTANT)	2012-2013	ESA	Participation
ICS-FORTH	Code Optimization and Modification for Partitioning of Algorithms developed in SEXTANT (COMPASS)	2014-2015	ESA	Participation
ICS-FORTH	Distributed Sensor systems For Emergency Response (DISFER)	2013-2016	GSRT	Scientist responsible for FORTH
ICS-FORTH	Dexterous Assembler Robot Working with Embodied Intelligence (DARWIN)	2011-2015	EU – IST	Participation
ICS-FORTH	Novel Design Principles and Technologies for a New Generation of High Dexterity Soft-bodied Robots Inspired by the Morphology and Behavior of the Octopus (OCTOPUS)	2009-2013	EU – FET	Participation
ICS-FORTH	Ambient Intelligence Programme	2007-present	ICS – FORTH	Participation
ICS-FORTH	Macedonia from fragments to pixels	2007-2008	ICS – FORTH	Project management and technical

				coordination
ICS-FORTH	Versatile Endoscopic Capsule for gastrointestinal Tumor Recognition and Therapy (VECTOR)	2007-2011	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 (MDRAW)	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 Coordination through Telematics Operational Resources	1996-1998	EU – IST	Participation, graduate scholar
University of Pennsylvania	National Tele-Immersion Initiative	2002-2003	NSF	Participation
University of Pennsylvania	Post-doc funded by NSF Center of Excellence grant at the Institute for Research in Cognitive Science, University of Pennsylvania	2001-2002	NSF	Participation, research scholar
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

SERVICES AND ACTIVITIES

Evaluation activities

- EC Future and Emerging Technologies Open Scheme under FET-Open, Remote Evaluator
- State Scholarships Foundation, 2011-14, Greece, Evaluator
- General Secretariat for Research and Technology of Greece, 2008 – Project reviewer.
- University of Patras, Karatheodoris Programme, 2010 – Project Reviewer.

Groups and committees

- ERCIM Working Group “*The Sensor Web*”, Member of Steering Committee.
- IEEE Communications Society, Technical Committee on “*Multimedia Communications, Interest Group*”, Key member.

Editing activities

- “*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.

Organizational activities and chairing

- SMC2017, IEEE International Conference on Systems, Man, and Cybernetics, 5-8 October, 2017, Banff, Canada – Publications chair.
- ISVC 2015, International Symposium on Visual Computing – Conference session chair.
- SiPS 2015, IEEE International Workshop on Signal Processing Systems – Publications chair.
- ICVS 2015, International Conference on Computer Vision Systems, 6-9 July, 2015, Copenhagen, Denmark – Conference session chair.
- ISVC 2013, International Symposium on Visual Computing – Local arrangements chair.
- ISVC 2013 – Conference session chair.
- 1st International Conference on "Distributed, Ambient and Pervasive Interactions", in the context of HCI International 2013, the 15th "International Conference on Human-Computer Interaction", 2013-18 – Member of the Program Board.
- ICME 2013, IEEE International Conference on Multimedia and Expo – Publications chair.
- ISVC 2012, International Symposium on Visual Computing – Local arrangements chair.
- ISVC 2012 – Conference session chair.
- Co-organization of workshop in ACM Multimedia, "International Workshop on User Experience in e-Learning and Augmented Technologies in Education", 2012.
- Co-organization of workshop in IEEE International Conference on Multimedia and Expo, "Interactive Ambient Intelligent Multimedia Environments", 2011.
- ICME 2011, IEEE International Conference on Multimedia and Expo – Publications chair.
- ISVC 2010, International Symposium on Visual Computing – Conference session chair.
- 3DTV Conference 2007, Special Session, "Perceptual Factors in 3D TV", Kos, Greece, 7-9 May 2007, co-organizer with Anup Basu, University of Alberta.
- 3DTV Conference, Capture Transmission and Display of 3D video, Kos, Greece, 7-9 May 2007, Publications chair.
- 3DPVT 2006, International Symposium on 3D Data Processing, Visualization and Transmission, University of North Carolina, Chapel Hill, U.S.A., June 14-16, 2006 – Publications chair.
- 3DPVT 2006 – Conference session chair.
- 3DTV Conference 2007 – Conference session chair.
- 3DPTV 2006 – Conference session chair.

Reviews for Journals

3D Research, Springer / Applied Optics, Optical Society of America / Chemical Engineering and Technology, Wiley / Computer / Computer Graphics Forum, Wiley / Computer Vision and Image Understanding, Elsevier / Computers in Human Behavior, Elsevier / Displays, Elsevier / Electronics, MDPI / Human Factors: The Journal of the Human Factors and Ergonomics Society / IEEE Signal Processing Letters / IEEE Transactions on Circuits and Systems for Video Technology / IEEE Transactions on Image Processing / IEEE Transactions on Multimedia / Image and Vision Computing, Elsevier / Interacting with Computers, Elsevier / International Journal of Computer Assisted Radiology and Surgery, Springer / International Journal of Human-Computer Interaction, Taylor Francis / International Journal of Digital Multimedia Broadcasting, Hindawi / International Journal of Machine Learning and Cybernetics, Elsevier / ISA Transactions, Elsevier / Journal of Ambient Intelligence and Humanized Computing / Journal of Computer Science and Technology / Journal of Imaging / Journal of Neuroscience Methods / Journal of Selected Topics in Signal Processing, IEEE / Journal of the Optical Society of America A / Journal of Virtual Reality and Broadcasting, Dusseldorf University of Applied Sciences / Journal of Visual Communication and Image Representation / KSII Transactions on Internet and Information Systems / Machine Vision and Applications, Springer / Multimedia Systems, Springer / Multimedia Tools and Applications, Kluwer Academic Publications / Neurocomputing, Elsevier / Optics Express, The Optical Society / Pattern Recognition Letters, Elsevier / Pattern Recognition, Elsevier / Sensors, MDPI / Universal Access in the Information Society, Springer

Reviews for Conferences

3DPVT 2006-2010, International Symposium on 3D Data Processing, Visualization and Transmission / 3DTV Conference, 2007-2016. Capture Transmission and Display of 3D Video / ACCV 2012, Asian Conference in Computer Vision / AIME 2001, Conference on Artificial Intelligence in Medicine / CGI 2011, Computer Graphics International / CGVCVIP 2012-13 IADIS Computer Graphics, Visualization, Computer Vision and Image Processing / CVPR 2006-2017, IEEE Computer Vision and Pattern Recognition / DICTA 2015, International Conference on Digital Image Computing: Techniques and Applications / DSP 2009, International Conference on Digital Signal Processing / ECC 2014, European Control Conference / ECCV 2012-17 European Conference on Computer Vision / HCII 2013-17, Human Computer Interaction International / ICBISP 2015, IET International biomedical image and signal processing / ICCES 2013, International Conference on Computer Engineering & Systems / ICCV 2009-2017, International Conference in Computer Vision / ICCVG 2014, International Conference on Computer Vision and Graphics 2014 / ICIP 2008-2016, International Conference in Image Processing / ICME 2011-2016, IEEE International Conference on Multimedia and Expo / ICRA 2013-14, 17-18, International Conference on Robotics and Automation, 2013 / ICT4AgeingWell 2015, International Conference on Information and Communication Technologies for Ageing Well and e-Health / IEEE International Conference on Systems, Man, and Cybernetics 2012 / International Symposium on Ubiquitous Computing and Ambient Intelligence 2011 UCAmI / IROS 2011-17, IEEE/RSJ International Conference on Intelligent Robots and Systems / ISVC 2008-2017, International Symposium on Visual Computing / MED 2011, Mediterranean Conference on Control and Automation / OMNIVIS 2008, Omnidirectional Vision, Camera Networks and Non-classical Cameras / SIBGRAPI 2014-17, Conference on Graphics, Patterns and Images / WACV 2012-18, Workshop on the Applications of Computer Vision

TECHNICAL EXPERIENCE AND DEMONSTRATORS

- REMPE: Registration through Eye Modelling and Pose Estimation. A software system for retinal image registration. <http://www.ics.forth.gr/cvrl/rempe/>
- A system for the shape and motion analysis of drops and their 3D reconstruction from multiple views, with Polykarpos Karamaounas, as an outsource assignment for CoWet Marie Curie – ITN.
- An RGB-D dataset and evaluation methodology for detection and 6D pose estimation of texture-less objects (T-LESS) <http://cmp.felk.cvut.cz/t-less/>
- A public benchmark dataset for the registration of retinal images <http://www.ics.forth.gr/cvrl/fire/>
- A public benchmark dataset for the registration of multispectral images <http://www.ics.forth.gr/cvrl/msi/>
- A system for automatic generation of conference proceedings and printed material was developed throughout 2011-2015 with Polykarpos Karamaounas and utilized in the generation of the proceedings and printed matter for the following conferences where XZ served as publications chair: SiPS 2015, ICME 2013, ICME 2011, 3DTV 2007, 3DPVT 2006.
- The “Interactive Documents” system augments with multimedia content printed documents placed upon a planar surface. Long term installations: “*Info point*”, Tourism Office, Municipality of Heraklion, 2015. Temporary installation: “*ITB Berlin*” International Travel Trade Show, 5-9 March 2014. [\[WWW\]](#)
- “360°” is an interactive system that enables the use of a steerable disk as an interactive, augmented display. The system is used for archaeological artifact exploration. Long term installations: “*Info point*”, Tourism Office, Municipality of Heraklion, 2015, the “*Alpha Bank Numismatic Collection*”, Archaeological Museum of Thessaloniki, 2014. [\[WWW\]](#)
- “Educational Card games” supports learning using physical cards and natural interaction. Long term installation: Rehabilitation Centre for Children with Disabilities, 2013. [\[WWW\]](#)

- PaperView is a system that augments physical surfaces digital information based on their location and orientation. Long term installations: National Research Foundation "*Eleftherios K. Venizelos*", 2015 and in "*Info point*", Tourism Office, Municipality of Heraklion, 2014. [\[WWW\]](#)
- "Be There Now!" is an interactive system immerses user in background sceneries and landscapes. Long term installations: "*Info point*", Tourism Office, Municipality of Heraklion, 2015, Teloglion Foundation of Art - Aristotle University of Thessaloniki, 2014, "*Creative Crete*", Region of Crete, airports and ports at Heraklion and Chania, 2013. Temporary installations: "*ITB Berlin*" International Travel Trade Show, Berlin, 5-9 March 2014, "*Days for Tourism*", Region of Crete, 26-29 September 2013, Eleftheria Square, Heraklion. [\[WWW\]](#)
- The "Book of Ellie" augments a physical book and enables interaction through physical cards, to provide a playful approach to alphabet learning. [\[WWW\]](#)
- "Macrographia" is an interactive system that presents very large images, which visitors can explore by walking around in a room. Long term installation: "*Macedonia: from fragments to pixels*", Archaeological Museum of Thessaloniki, 2010. [\[WWW\]](#)
- "SESIL" is a system enhancing physical books based on their content. [\[WWW\]](#)
- "Study Table" is an interactive table that augments physical books. [\[WWW\]](#)
- 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.
- "Retinal Images Analyzer" is an image analysis system for the measurement of retinal vessel width that was developed in collaboration with the 2nd Propaedeutic Dept Internal Medicine, Hippokraton Hospital, School of Medicine, Aristotle University of Thessaloniki.
- A trinocular stereoscopic imaging device for the 3D imaging of psoriatic lesions, 2010, in collaboration with the Department of Dermatology, University of Crete.
- In 2009, a dataset for head pose estimation from multiple distant views, annotated with ground truth data was constructed and publicly availed at: <http://www.ics.forth.gr/cvrl/headpose/>
- An image analysis system for the measurement 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 utilized by the Department of Mining and Minerals Engineering, Virginia Polytechnic Institute and State University.
- Technical contributions in parallel computing, on a 2400 CPU system at the Pittsburg Supercomputing Center, 2002-2004, for the real-time reconstruction of a scene from multiple images for tele-immersion. Participation at the "*Bandwidth Challenge*" of the Supercomputing Conference, Baltimore, 2002.
- 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. Work in CMI-HTA of ICS FORTH and in FORTHnet, 1998-2000. Technology utilized in "*WebOnCOLL*" for real-time medical WWW services (ICS FORTH) and in "*Virtual Office*" for the provision of commercial services (FORTHnet).

- Implementation of a Java programming interface for the Semantic Index System (SIS) developed and distributed commercially by the Information Systems Laboratory of ICS-FORTH, 1998.

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 \mathcal{F}^C 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. Zabolis**, I. Cheng, N. Grammalidis, G. A. Triantafyllidis, and P. Zanuttigh.

Contributions to books

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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, No 76, Special issue "The Sensor Web", 45-46, January 2009.
9. C. Chronaki, **X. Zabulis**, M. Tsiknakis and S. C. Orphanoudakis, "Web - based Medical Services in the Regional Health Network of Crete", ERCIM NEWS, No 29, 28-29, April 1997.

Invited talks

- 4 May 2017, “*Beyond museum guides: smart interaction with cultural heritage*” (Keynote talk), Hyperheritage International Symposium, Smart Heritage, Arab American University - Jenin, Palestine.
- 20 February 2017, “*2D-Drop shape/motion analysis, 3D-Drop image reconstruction from multiple views*”, CoWet Marie-Curie ITN Training School in Thessaloniki/Metsovo.
- 10 June 2014, “*Image filtering, features and scale*”, 3rd REVAMMAD Marie-Curie ITN Training Event, Hersonissos, Crete, Greece.
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- 4 December 2013, “*Clinical aspects of Retinal Image Analysis*”, 1st REVAMMAD Marie-Curie ITN Training Event, Lincoln, UK.
- 20 September 2013, “*Ambient Intelligence*”, PechaKucha Vol 4, Heraklion.
- 13 July 2013, “*Interacting with the World*”, Foundation for Research and Technology – Hellas, FORTH Information Day, Heraklion, Crete.
- 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 “*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, U.S.A.
- 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, U.S.A., “*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.

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- “Ρομποτικό χταπόδι στις ελληνικές θάλασσες!”, Το Βήμα – Science, 2 November 2014.
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