

CURRICULUM VITAE

Nicolas Alvertos
Assistant Professor

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PERSONAL

Birth Date: July 22, 1957

EDUCATION

- Ph.D.:* Electrical Engineering, University of Tennessee, Knoxville (11 Dec. 1987)
Dissertation: "Stereo Camera Modeling and Image Correspondence for Three-Dimensional Machine Vision" (Supervisor: Prof. R.C. Gonzalez)
- M.S.:* Electrical Engineering, University of Tennessee, Knoxville (24 Aug. 1983)
Thesis: "Omnidirectional Robot Vision: Correction and Restoration of Fish-eye Lens Images" (Supervisor: Prof. E.L. Hall)
- B.Sc.:* Electrical Engineering, University of Tennessee, Knoxville (24 Aug. 1981)

HONORS - PROFESSIONAL AND HONORARY SOCIETIES

- Dupont Scholarship Award (1985)
- Phi Kappa Phi
- Registered Professional Engineer (Technical Chamber of Greece)
- IEEE Member
- SPIE Member

PROFESSIONAL EXPERIENCE

- 1999-....:* Assistant Professor, Science Department, Agricultural University of Athens. Research in the area of Computational Machine Vision and development of the corresponding laboratory. Taught undergraduate courses in "Physics (theory and laboratories)" and graduate courses in "Current Machine Vision Issues" and "Signals and Systems".
- 1998-1999:* Product/Research Director, MEDISOFT Company, Medical Informatics Systems. Coordination of projects for designing and producing Dynamic Data Bases towards the creation of Integrated Hospital Information Systems.

1991-1998: Assistant Professor, Computer Science Department, University of Crete. Taught graduate courses in “Current Robotic Issues” and the following undergraduate courses: “Introduction to Programming”, “Computer Organization”, “Data Structures”, “Theory of Computation”, “Digital Signal Processing”, “Robotics”.

1995: Visiting Assistant Professor, Department of Informatics, University of Athens. Taught graduate courses in “Artificial Vision”.

1987-1992: Assistant Professor, Electrical and Computer Engineering, Old Dominion University.

1. Development, coordination, and direction of Image Processing and Computer Vision Laboratory.
2. NASA Contractor-Consultant. Research in the area of Computational Machine Vision.
3. Courses taught; graduate level: Robotic Vision, Digital Image Processing, Signal Theory, Machine Pattern Analysis; undergraduate level: Linear Systems, Circuit Theory II, Circuit Analysis, Digital Signal Processing, Computer Design.

1984-1987: Graduate Research Assistant, Image and Pattern Analysis Laboratory, University of Tennessee. Research in the area of 3-D Computer Vision: Stereo Camera Geometries and Modeling.

Instructor of Electrical Engineering, University of Tennessee. Taught junior courses in Circuits and Fields, Transient Analysis, Logic Design and Digital Systems.

1982-1984: Research in the area of Computer and Robot Vision utilizing Image Processing Techniques. Graduate Teaching Assistant of Mathematics, University of Tennessee.

Taught freshman courses in Mathematical Analysis, Calculus and Analytical Geometry, and Applied Mathematics.

1982: Graduate Teaching Assistant. Taught a freshman course in Computers (BASIC language).

RESEARCH INTERESTS

- General area: Electrical Engineering , Computer and Information Science.
- Specific areas: Robotic/Machine/Computational Vision, Pattern Recognition, Digital Image Processing and Analysis, Optical Processing, Signal Theory.

TEACHING INTERESTS

- Robotic/Machine/Computational Vision
- Pattern Recognition and Image Processing
- Signal Processing
- Linear Systems
- Digital Systems
- Almost all Electrical Engineering courses
- Computer Science Subjects
- Physics
- Mathematics

CURRENT RESEARCH

Three-Dimensional (3-D) Robotic Vision; 3-D Object Recognition; Stereo-Camera Modeling; Optical Character Recognition; Image Filtering; Statistical and Neural Network Methods.

ARTICLE PUBLICATIONS

1. Mazou E., Alvertos N., Psiloglou B., Tsiros I.X. 2014. Prediction of daily maximum and minimum air temperature values using dynamic neural network models. *12th International Conference of Meteorology, Climatology and Atmospheric Physics* (May 2014).
2. Mazou E., Efthimiadou A., Tsiros I.X., Tseliou A., Alvertos, N. 2013. Air Temperature Prediction Using Recurrent Neural Models with Embedded Time Delays. *13th International Conference on Environmental Science and Technology*.
3. Mazou E., Alvertos N., Tsiros I. X. 2103. Soil Temperature Prediction Using Time-Delay Neural Networks. *Advances in Meteorology, Climatology and Atmospheric Physics. Springer Atmospheric Sciences*, 611-615.
4. Chronopoulos K., Tsiros I., Alvertos N. 2011. Assessment of bioclimatic comfort using artificial neural network models-A preliminary study in a remote mountainous area of southern Greece. *Acta Climatologica et Chorologica, Tomus 44-45*, 65-71.
5. Chronopoulos K., Tsiros I., Alvertos N., Shashua-Bar L., Dimopoulos I. 2010. An application of artificial neural network models for estimating values of meteorological and biometeorological parameters in the urban canopy layer. *10th International Conference on Meteorology, Climatology and Atmospheric Physics*, pp. 495-500.
6. Mazou E., Alvertos N., Tsiros I., Lykoudis S., Garofalakis I. 2010. Estimation of soil temperature: Time and Frequency Domain Modeling. *10th International Conference on Meteorology, Climatology and Atmospheric Physics*, 517-524.
7. Chronopoulos K., Tsiros I., Alvertos N., I. Dimopoulos I. 2010. Estimation of microclimatic data in remote mountainous areas using an artificial neural network model-based approach. *Global NEST Journal, Vol. 12, No 4*, 384-389.
8. F. Droulia, S. Lykoudis, I. Tsiros, N. Alvertos, E. Akylas, I. Garofalakis. 2009. Ground temperature estimations using simplified analytical and semi-empirical approaches. *Solar Energy, Vol.83*, 211-219.
9. K. Chronopoulos, I. Tsiros, I. Dimopoulos, N. Alvertos. 2008. An application of artificial neural network models to estimate air temperature data in areas with sparse network of meteorological stations. *Journal of Environmental Science and Health, Part A, Vol.43*, 1752-1757.
10. Varvara Noutsou, Demetre Argialas, Pantelis Michalis, Nikos Alvertos. 2007. Edge Detection of Manmade Objects Using Wavelets in High Resolution Satellite Images. *8th Panhellenic Geographical Conference*, 8 pages.
11. D. Argialas, A. Georgopoulos, D. Rokos, Ch. Ioannidis, Nikos Alvertos, Nikos Paragios, ... 2007. Development of Advanced Photogrammetric Techniques for the Creation of Geo Data Bases in Urban Areas. *PYTHAGORAS: Conference for the Scientific Research at the National Technical University of Greece*, 8 pages.
12. G. Kartsounis, F. Kartsouni, M. Roukounakis, N. Alvertos. 2006. Realistic and representative humanoids for virtual prototyping. *International Journal of Product Lifecycle Management (Application of Artificial Intelligence and Virtual Reality), Vol.1, No.3*, 268-288.
13. K. Chronopoulos, I. Dimopoulos, I. Tsiros, N. Alvertos. 2006. Estimation of micrometeorological parameters at gnarled regions using statistical methods and neural networks-estimation of forest fire risk index. *Proceedings of the 8th Conference on Meteorology-Climatology-Atmospheric Physics*, 384-391.

14. I. Dimopoulos, K. Chronopoulos, N. Alvertos, I. Tsiros. 2005. A preliminary study of predicting meteorological parameters in a canyon using statistical and artificial neural network methods. *Proceedings of the 9th International Conference on Environmental Science and Technology*, A305-A310.
15. Alvertos N., Kartsounis G., Kazakos D. 2002. Improved Depth Formulation for the Lateral Stereo-Camera Geometry, *Recent Advances in Circuits, Systems and Signal Processing*, WSEAS Press, 364-367.
16. Alvertos N. 2002. Method for Aligning Any-Order Polynomial Surfaces in Three-Dimensional Space. *Optical Engineering*, Vol.41, No.4, 886-898.
17. Alvertos N., D'Cunha I. 1999. Object Recognition Using an Efficient Technique for Aligning Quadric Surfaces. *Automatic Target Recognition, (CD-ROM), Vol.6, SPIE*, 11 pages.
18. Liapis S., Alvertos N., Tziritas G. 1998. Unsupervised Texture Segmentation using Discrete Wavelet Frames. *IX European Signal Processing Conference*, 2529-2532.
19. Liapis S., Alvertos N., Tziritas G. 1997. Maximum Likelihood Texture Classification and Bayesian Texture Segmentation using Discrete Wavelet Frames. *13th International Conference on Digital Signal Processing, IEEE*, 1107-1110.
20. Patras I., Alvertos N., Tziritas G. 1996. Joint Disparity and Motion Field Estimation in Stereoscopic Image Sequences. *13th International Conference on Pattern Recognition, IEEE*, 359-363.
21. D'Cunha I., Alvertos N. 1995. An Analytical Approach to the Recognition of Quadric Surfaces from Range Data. *Optical Engineering*, Vol.34, No.1, 110-124.
22. D'Cunha I., Alvertos N. 1994. Blob Tracking Technique to Range Image Segmentation. *Intelligent Robots and Computer Vision XIII, SPIE Vol.2353*, 216-223.
23. Alvertos N., D'Cunha I. 1992. Object Recognition Using an Efficient Technique for Aligning Quadric Surfaces. *Intelligent Robots and Computer Vision XI, SPIE Vol. 1825*, 276-288.
24. Orphanoudakis S., Alvertos N. 1992. On Medical Imaging, *invited to the 2nd Panhellenic Conference on Medical Informatics*, 5 pages.
25. Alvertos N., D'Cunha I. 1991. Optical Machine Recognition of Handwritten and Printed Lower-Case Greek Characters of Any Size. *Optical Engineering*, Vol. 30, No. 12, 1920-1930.
26. Alvertos N., D'Cunha I. 1991. Curvature Effect of Median Filtering on Range Images. *IEEE Proceedings of the Southeastcon*, 910-914.
27. Alvertos N., D'Cunha I. 1990. Three-Dimensional Description of Symmetric Objects from Range Images. *Intelligent Robots and Computer Vision IX: Neural, Biological, and 3-D Methods, SPIE Vol. 1382*, 388-396.
28. Alvertos N. 1990. Edge-Point Correspondence in Three Views of a Scene. *Proceedings of the 22nd Southeastern Symposium on System Theory, IEEE*, 324-327.
29. Alvertos N., D'Cunha I. 1990. A Mathematical Modeling Approach to Size Invariant Greek Character Recognition. *Proceedings of the 22nd Southeastern Symposium on System Theory, IEEE*, 12-16.
30. Alvertos N. 1989. Integration of Stereo Camera Geometries. *Optics, Illumination, and Image Sensing for Machine Vision IV, SPIE Vol. 1194*, 276-286.
31. Alvertos N., Brzakovic D., Gonzalez R.C. 1989. Camera Geometries for Image Matching in 3-D Machine Vision. *IEEE Transactions on Pattern Analysis and Machine Intelligence, PAMI Vol. 11, No. 9*, 897-915.
32. Alvertos N., Champaneri J., Obando R. 1989. An Algorithm for Image Analysis Using Pattern Connectivity and Cluster Compactness. *Proceedings of the Sixth Scandinavian Conference on Image Analysis*, 898-901.
33. Alvertos N. 1989. A Zoom-Based Stereo Camera Model. *IEEE Proceedings of the Southeastcon*, 482-485.
34. Alvertos N., Champaneri J., Obando R. 1989. An Algorithm for Determining Pattern Connectivity and Cluster Compactness. *IEEE Proceedings of the Southeastcon*, 614-616.
35. Alvertos N., D'Cunha I. 1989. Optical Machine Recognition of Greek Characters of Any Size. *IEEE Proceedings of the Southeastcon*, 623-627.

36. Alvertos N. 1988. Resolution Limitations and Error Analysis for Stereo Camera Models. *IEEE Proceedings of the Southeastcon*, 220-224.
37. Brzakovic D., Alvertos N., Hong L. 1987. A 3-D Vision System for Obstacle Avoidance. *Mobile Robots II, SPIE Vol. 852*, 126-131.
38. Brzakovic D. and Alvertos N. 1987. A 3-D Vision System for Mobile Robots. *IEEE Proceedings on Systems, Man, and Cybernetics*, 112-117.
39. Alvertos N., Brzakovic D., Gonzalez R. C. 1986. Correspondence in Pairs of Images Acquired by Camera Displacement in Depth. *Intelligent Robots and Computer Vision, SPIE Vol. 726*, 131-136.
40. Alvertos N., Hall E. L., Anderson R. L. 1983. Omnidirectional Viewing for Robot Vision. *Intelligent Robots: Third International Conference on Robotic Vision and Sensory Controls, SPIE Vol. 449*, 230-239.
41. Alvertos N., Hall E. L., Anderson R. L. 1983. Omnidirectional Viewing: The Fish-eye Lens Problem. *IEEE Proceedings (on Optics) of the Southeastcon*, 174-179.
42. Anderson R. L., Hall E. L., Alvertos N. 1982. Omnidirectional Real-Time Imaging Using Digital Restoration. *Proceedings of the 15th International Congress on High Speed Photography and Photonics, SPIE Vol. 348*, 807-816.

CITATIONS

More than 150 citations, of which, at least 2 appear in books and more than 80 refer to publication number 31 (see above).

TECHNICAL REPORTS

1. Alvertos, N., "Geometrical Model of Optical Systems," Technical Report (in Greek), UNIV. OF CRETE/1996-02, June 1996.
2. Patras, I., Alvertos, N., Tziritas, G., "Joint Disparity and Motion Field Estimation in Stereoscopic Image Sequences," Technical Report, FORTH-ICS/TR-157, Dec. 1995.
3. Mielke, R., D'Cunha, I., Alvertos, N., "A New Method for Recognizing Quadric Surfaces from Range Data and Its Application to Telerobotics and Automation (Final Phase)," Technical Report, Contract NASA-Langley Research Center, March 1994.
4. Alvertos, N., D'Cunha, I., "A New Method for Recognizing Quadric Surfaces from Range Data and Its Application to Telerobotics and Automation (Phase II)," Technical Report, Contract NASA-Langley Research Center, February 1993.
5. Alvertos, N., D'Cunha, I., "A New Method for Recognizing Quadric Surfaces from Range Data and Its Application to Telerobotics and Automation (Phase I)," Technical Report, Contract NASA-Langley Research Center, February 1992.
6. Alvertos, N., D'Cunha, I., "Recognition of 3-D Symmetric Objects from Range Images in Automated Assembly Tasks," Technical Report, Contract NASA-Langley Research Center, December 1990.
7. Alvertos, N., D'Cunha, I., "Use of Laser Range Finders and Range Image Analysis in Automated Assembly Tasks," Technical Report, Contract NASA-Langley Research Center, September 1990.
8. Champaneri, J., D'Cunha, I., Alvertos, N., "Investigation and Evaluation of a Laser Range Mapper for Object Discrimination Performance (Phase II)," Technical Report, Contract NASA-Langley Research Center, October 1989.
9. Alvertos, N., Champaneri, J., D'Cunha, I., "Investigation and Evaluation of a Laser Range Mapper for Object Discrimination Performance (Phase I)," Technical Report, Contract NASA/Langley Research Center, April 1989.
10. Alvertos, N., "The Correspondence Problem in Three-Dimensional Robot Vision," Technical Report, Summer Faculty Research Grant, January 1989.

11. Alvertos, N., "Stereo Camera Modeling and Image Correspondence for Three- Dimensional Machine Vision," Contract Martin Marietta-Orlando, TR-ECE-87-18, August 1987.
12. Brzakovic, D. and Alvertos, N., "A 3-D Vision System for Obstacle Avoidance," Contract Martin Marietta/Orlando, TR-ECE-87-16, July 1987.
13. Alvertos, N. "Correspondence in Three Views of a Scene," Contract Martin Marietta/Orlando, TR-EE-86-25, January 1987.
14. Alvertos, N., "Correspondence in Stereo Images by Camera Motion in Depth," Contract Martin Marietta/Orlando, TR-EE-86-23, October 1986.
15. Alvertos, N., "Minimization of the Search Space in a Pair of Corresponding Images," Contract Martin Marietta/Orlando, TR-EE-86-13, April 1986.
16. Alvertos, N., "Depth Estimation from a Pair of Stereo Images," Contract Martin Marietta/Orlando, TR-EE-86-10, January 1986.
17. Alvertos, N., "Camera Calibration: A Real Example," Contract Martin Marietta/Orlando, TR-EE-85-60, June 1985.
18. Alvertos, N., "Point Correspondence in a Pair of Stereo Images," Contract Martin Marietta/Orlando, TR-EE-85-61, November 1985.
19. Alvertos, N., "Literature Survey on Stereo Image Analysis," Contract Martin Marietta/Orlando, TR-EE-85-59, March 1985.
20. Eason, R., Abidi, M., and Alvertos, N., "A Method for Camera Calibration Using Three World Points," Contract Martin Marietta Energy Systems Incorporation, TR-EE-84-54, November 1984.
21. Green, W. L., and Alvertos, N., "Camera Calibration for Object Classification and Identification," Technical Report, Contract Martin Marietta/Orlando, August 1984.

OTHER PUBLICATIONS - THESES

1. Alvertos, N., Lecture notes for "Fourier Transform, Systems and Filters", Dec. 2006
2. Alvertos, N., Lecture notes for "Digital Signal Processing", Sept. 1992 and Feb. 1997.
3. Alvertos, N., Lecture notes for "Robotics", Sept. 1993 and Sept. 1995.
4. Alvertos, N., Lecture notes for "Computer Organization", Sept. 1992.
5. Alvertos, N., Stereo Camera Modeling and Image Correspondence for Three-Dimensional Machine Vision, Ph.D. Dissertation, University of Tennessee, Knoxville, 1987. Supervisor: Prof. R.C. Gonzalez.
6. Alvertos, N., Omnidirectional Robot Vision: Correction and Restoration of Fish-eye Lens Images, Master Thesis, University of Tennessee, Knoxville, Tennessee, August 1983. Supervisor: Prof. E.L. Hall.

PROPOSALS - FUNDED RESEARCH

1. Alvertos, N., Kartsounis, G., "Material characterisation for simulation: novel, simplified, fast and efficient technique for the characterisation of fabrics in terms of their mechanical properties," Proposal submitted to and approved for funding within the framework of Leapfrog Integrated EC Project.

Principal Investigator:	Alvertos, N.
Amount:	24,500 €
Duration:	January 2006 – December 2008
2. Kartsounis, G., Alvertos, N., "Integrated Environment of Electronic Cooperation for the Design of Products and Productive Processes using 3D Models and Humanoids," Proposal submitted to and approved for funding by the EC Research Program within the Society of Information, (e-MERIT).

Principal Investigator:	Kartsounis, G.
Amount:	32,400 €
Duration:	January 2003 – December 2005

3. Tziritas, G., Alvertos, N., "NEW Multimedia Services using analysis Synthesis coding 3D, Phase II," Proposal submitted to and approved for funding by European Union program ESPRIT.
 Principal Investigators: Tziritas, G., Alvertos, N.
 Amount (all partners): 1,585,000 €
 Duration: 2 years
4. Tziritas, G., Alvertos, N., "NEW Multimedia Services using analysis Synthesis coding 3D," Proposal submitted to and funded by European Union program ESPRIT, October 1995.
 Principal Investigators: Tziritas, G., Alvertos, N.
 Amount Awarded (all partners): 458,800 €
 Duration: September 1996 - May 1997
5. Tziritas, G., Alvertos, N., "Computational vision for motion and shape in two and three dimensions," Proposal submitted to and funded by The Ministry of Industry, Research and Technology, March 1995.
 Principal Investigators: Tziritas, G., Alvertos, N.
 Amount Awarded: 8,000,000 DRS (approx. \$32,000)
 Duration: January 1996 - December 1997
6. Tziritas, G., Alvertos, N., "Computational Stereoscopic Dynamic Vision," Proposal submitted to and funded by Univ. of Crete Faculty Research Program, May 1994.
 Principal Investigators: Tziritas, G., Alvertos, N.
 Amount Awarded: 1,000,000 DRS (approx. \$4,000)
 Duration: October 1994 - September 1995
7. Alvertos N., "A New Method for Recognizing Quadric Surfaces from Range Data and Its Application to Telerobotics and Automation," Proposal submitted to and funded by NASA/Langley Research Center, contract #NAG-1-1223, October 1990.
 Principal Investigator: Alvertos, N.
 Amount Awarded: \$218,319
 Duration: January 1, 1991 - Dec. 31, 1993
8. Alvertos, N., "Recognition of 3-D Symmetric Objects from Range Images in Automated Assembly Tasks," Proposal submitted to and funded by NASA/Langley Research Center, Contract #NAS1-18584-88, April 1990.
 Principal Investigator: Alvertos, N.
 Amount Awarded: \$20,928
 Duration: August 16, 1990 - Dec. 31, 1990
9. Alvertos, N., "Use of Laser Range-Finders and Range Image Analysis in Automated Assembly Tasks," Proposal submitted to and funded by NASA/Langley Research Center, Contract #NAS1-18584-70, June 1989.
 Principal Investigator: Alvertos, N.
 Amount Awarded: \$65,777
 Duration: August 16, 1989 - August 15, 1990
10. Alvertos, N., "Investigation and Evaluation of a Laser Range Mapper for Object Discrimination Performance," Proposal submitted to and funded by NASA/Langley Research Center, contract #NAS1-18584-29, June 1988.
 Principal Investigator: Alvertos, N.
 Amount Awarded: \$45,953
 Duration: August 16, 1988 - May 15, 1989
11. Alvertos, N., "The Correspondence Problem in Three-Dimensional Robot Vision," Proposal submitted to and funded by Old Dominion University Faculty Research Fellowship Program, October 1987.
 Principal Investigator: Alvertos, N.
 Amount Awarded: \$2,900
 Duration: June 1, 1988 - June 30, 1988

12. Green, W. L., Alvertos, N., "Camera Calibration for Object Classification and Identification," Proposal submitted to and funded by Martin Marietta Corporation/Orlando, May 1984.

Principal Investigator:	Green, W. L.
Research Assistant:	Alvertos, N.
Amount Awarded:	\$45,942
Duration:	June 1, 1984 - August 31, 1984

THESES SUPERVISION - PARTICIPATION

[Ph.D. and M.S. Supervisor]

1. Mazou, E., "Dynamic Ground Temperature Variations using Advanced Neural Models: Estimation and Prediction," *Ph.D. Dissertation* (in progress)
2. Chronopoulos, C., "Development and Application of Current Analysis and Processing Techniques for Estimating Environmental Parameters," *Ph.D. Dissertation*, December 2009.
3. Mazou, E., "Ground Temperature Estimation: Analysis in Time and Fourier Domain," *Master Thesis*, July 2008.
4. Kalomiri, V., "Sound and Thermal Insulation of Buildings: Evaluation and Application of Urban Planning Methods," *Master Thesis*, January 2007.
5. Chronopoulos, C., "Estimation of Micro-climate Parameters using Statistical Methods and Neural Networks," *Master Thesis*, February 2006.
6. D'Cunha, I. X., "Recognition of Quadric Surfaces form Range Data: An Analytical Approach," *Ph.D. Dissertation*, May 1993.
7. D'Cunha, I. X., "Optical Machine Recognition of Lower-Case Greek Characters of Any Size," *Master Thesis*, November 1989.

[Ph.D. and M.S. Committee Member]

1. Chatzigeorgiou, M., "Microclimatic Conditions on the Mountainous Northeastern Greece," *Master Thesis*, October 2013.
2. Rigopoulou, D., "Bioclimatic Observation of Outdoor Urban Areas with Vegetation: Design Applications," *Master Thesis*, February 2013.
3. Michalas, S., "Description of Climatic Parameters using Artificial Neural Networks," *Master Thesis*, February 2013.
4. Laiaki, M., "Comparison Study of Simulations in a Water-balance Computational Model in Areas with Varying Climatological Conditions," *Master Thesis*, February 2013.
5. Thoma, E., "Application of Analytical and Semi-analytical Models for Estimating and Predicting Ground Temperature," *Master Thesis*, June 2012.
6. Vourlioti-Arapi, F., "Study of Essential Oils Genus Juniperus of the Greek Flora: Chemical Composition and Bioactivity," *Master Thesis*, February 2010.
7. Petrakis, E., "Study of the Biological Activity of Secondary Plant Metabolites Lamiaceae Family in Myzus Percicae Insects," *Master Thesis*, June 2008.
8. Kazana, A., "Temperature-Air Conditions in Urban Canyons of Athens," *Master Thesis*, June 2008.
9. Chasapis, P., "Space-Time Air Temperature Variations within Urban Layers," *Master Thesis*, June 2007.
10. Levakis, M., "Algorithm Development for Improving the Electron Density Map of Protein Crystal Structures," *Master Thesis*, June 2007.
11. Droulia, F., "Ground Temperature Prediction," *Master Thesis*, June 2006.
12. Tournas, E., "Photogrammetry and Three-Dimensional Modeling," *Ph.D. Dissertation*, Jan. 2003.

13. Lilas, Th., "Active Systems for Three-Dimensional Computer Vision," *Ph.D. Dissertation*, Feb. 2002.
14. Varsou, P., "Texture Analysis and Image Segmentation," *Ph.D. Dissertation*, Jan. 2002.
15. Sourlantzis, I., "Text to Speech for the Greek Language," Master Thesis, October 1996.
16. Patras, I., "Joint Disparity and Motion Field Estimation in Stereoscopic Image Sequences," *Master Thesis*, October 1996.
17. Xanthaki, Z., "A Memory Controller for Interleaved Access to a simple Rambus," *Master Thesis*, February 1994.
18. Moschovos, A., "On Architectures which Support Access Decoupling and Software Pipelining Techniques," *Master Thesis*, July 1992.
19. Mantzios, A., "DigiLaby: A Tool for Designing and Simulating Digital Circuits," *Master Thesis*, July 1992.
20. Argyros, A., "Algorithms for Redistributing Computational Loads in Parallel Tasks of Image Analysis," *Master Thesis*, May 1992.
21. Champaneri, J. K., "A Structured Light Method for Sensing Alignment During Automated Truss Assembly," *Master Thesis*, November 1988.
22. Shen, C. H., "Discrete Cosine Transform Analysis for Speaker-Independent Automatic Acoustic-Phonetic Transcription," *Ph.D. Dissertation*, August 1988.

[Senior Theses Supervisor]

1. Lianakis, G., "Graphic Simulation of a 6R Robotic Arm," Spring 1999.
2. Peraki, P., "Three-Dimensional Surface Reconstruction using Stereoscapy and Photometry," Fall 1998.
3. Pratikakis, M., "Three-Dimensional Reconstruction using the Telescopic Model," Fall 1998.
4. Orphanakis, V., "Representation of Three-Dimensional Surfaces by Rotation," Fall 1998.
5. Pachou, Ch., "Correspondence Criteria for the Converging Stereo Camera Model," Fall 1997.
6. Mplika, D., "Optical Servo-control and Myo-electrical Telecontrol," Spring 1997.
7. Zikos, G., "Comparison with the Hausdorff Distance and Symmetry of Images," Fall 1996.
8. Kasmeridis, N., "Comparison of algorithms in solving the inverse kinematics problem for a 6-R robot arm," Summer 1996.
9. Mouratidis, F., "Analysis of the converging stereoscopic model," Spring 1996.
10. Saviolaki, M., "Analysis of the stereo-telescopic model," Fall 1995.
11. Papadopoulou, M., "Analysis of a digital image sequence," Fall 1995.
12. Margari, E., "Applications of wavelets," Fall 1995.
13. Constantaros, P., "Some Analysis Results on the Lateral Stereo-Camera Model," Fall 1995.

OTHER PROFESSIONAL ACTIVITIES

[Article and Book Reviewer]

1. Article Reviewer (Referee) for Optical Engineering, 2003-...
2. Article Reviewer (Referee) for IEEE Transactions on Information Technology in Biomedicine, 1998-
3. Article Reviewer (& Scientific Committee) for European Signal Processing Conference, 1998.
4. Article Reviewer (Referee) for Journal of Visual Communication and Image Processing, 1997-....
5. Article Reviewer (Referee) for Computer Vision, Graphics, and Image Processing: Graphical Models and Image Processing, 1994-....
6. Article Reviewer (Referee) for Photogrammetric Engineering and Remote Sensing, 1990.
7. Article Reviewer (Referee) for IEEE Transactions on Systems, Man, and Cybernetics, 1989.
8. Book Reviewer for West Educational Publishing, (T. Michael Slaughter, Ed.), 1987.

[Invited Presentations]

1. Session Chairman for the International Conference on Digital Signal Processing, July 1997.
2. Session Chairman (Statistical Pattern Recognition) for the International Conference on Pattern Recognition (ICPR), August 1996.

3. Invited Lecture for The Workshop on Computer-Aided Geometric Design: From Theory to Practice, May 1994.
4. Invited Lecture for The 2nd Panhellenic Conference on Medical Informatics, May 1992.
5. Session Chairman (Signal Processing and Estimation) for The IEEE Southeastcon '91, April 1991.
6. Session Chairman (Pattern Recognition) for The 22nd Southeastern Symposium on System Theory, March 1990.
7. Invited Lecture for The IEEE-Hampton Roads Section, April 1989.