

# Curriculum Vitae

## Personal Information

Name/Surname : Pantelis Theocharakis (Mr.)

Date of Birth: 1979

Military Service : Fulfilled (1998-2000)

Address: 69 Fidiou Street, 26 504, Kastellokampos, Patra, Greece

Tel: (+30) 6974 318372, 6977 187492

E-mail: [theochar@upatras.gr](mailto:theochar@upatras.gr), [ptheoch@med.upatras.gr](mailto:ptheoch@med.upatras.gr)

## Education

**1997-1998, 2000-2003** Technological Institute of Athens, Greece, Department of Medical Instrumentation Technology (Grade: 7.3) (**BSc.**)

**2003-2005** University of Patras, Greece, Department of Medicine, postgraduate programme in Medical Physics (Grade: 'Excellent') (**MSc.**)

**2005-** University of Patras, School of Medicine, postgraduate course in Medical Physics, PhD candidate in Medical Physics. Research subject: Classification of multiple sclerosis types of Magnetic Resonance Imaging and Spectroscopy Data using modern pattern recognition algorithms

## Scholarships

Successful at the State Scholarship Foundation National Competition on the Medical Instrumentation Technology specialty.

Erasmus Scholarship for 3 months (10/2004-1/2005) in Tallin University of Technology, at the Biomedical Center , Estonia, cooperation with Prof. Hiie Hinrikus

## Teaching Experience

2 years (2004-till today) subsidiary teaching at the international postgraduate program in Medical Physics, School of Medicine, University of Patras, Greece.

Course 1. Medical Image Processing-40 hours per year-

Course 2. Medical Image Analysis-40 hours per year-

References Professor Dr. Cavouras Dionisis ([cavouras@teiath.gr](mailto:cavouras@teiath.gr))

## Research experience

**BSc. Thesis:** 'Computer Based Analysis of Ultrasound Images for Assessing Carotid Artery Plaque Risk', Department of Medical Instrumentation Technology, Technological Educational Institution of Athens, 2002-2003. References: Professor Dr. Dionisis Cavouras ([cavouras@teiath.gr](mailto:cavouras@teiath.gr))

**MSc. Thesis:** 'Multilayer feedforward neural networks for characterizing transrectal ultrasound prostate images', postgraduate program in Medical Physics, University of Patras, 2004-2005, References: Professor Dr. Dionisis Cavouras ([cavouras@teiath.gr](mailto:cavouras@teiath.gr)) and Professor Dr. George Nikiforidis ([gnikif@upatras.gr](mailto:gnikif@upatras.gr))

**PhD. Thesis:** 'Classification of multiple sclerosis types of Magnetic Resonance Imaging and Spectroscopy Data using modern pattern recognition algorithms', *in progress* postgraduate program in Medical Physics, University of Patras, Greece, References: Professor Dr. Dionisis Cavouras ([cavouras@teiath.gr](mailto:cavouras@teiath.gr)) and Professor Dr. George Nikiforidis ([gnikif@upatras.gr](mailto:gnikif@upatras.gr))

#### Journal Publications

N. Piliouras, I. Kalatzis, **P. Theocharakis**, N. Dimitropoulos, and D. Cavouras, «Development of the Probabilistic Neural Network - Cubic Least Squares Mapping (PNN-LSM<sup>3</sup>) classifier to assess carotid plaque's risk», *Pattern Recognition Letters*, Vol. 25, No 2, pp. 249-258, January **2004**

#### Proceeding in International Conferences with Referees

**P. Theocharakis** , D. Cavouras, P. Georgiadis, K. Sidiropoulos, M. Malamas (M.D), K. Sifaki R.T.(R), I. Kalatzis, G. Nikiforidis “Automatic segmentation of MR Brain images for assessing brain atrophy in patients with multiple sclerosis” *5th European Symposium on Biomedical Engineering*, Patra, 7-9 July, **2006**

**P. Theocharakis**, D. Glotsos, N. Dimitropoulos, I. Kalatzis, G. Nikiforidis, D. Cavouras “Likelihood Approximation Functions For Characterizing Transabdominal Prostate Ultrasound Images”, *1st International Conference on Experiments/Process/System Modelling/Simulation/Optimization*, Athens, 6-9 July, **2005**

**P. Theocharakis**, I. Kalatzis, N. Piliouras, N. Dimitropoulos, and D. Cavouras, “Computer Based Analysis of Ultrasound Images for Assessing Carotid Artery Plaque Risk”, *3rd International Symposium on Image and Signal Processing and Analysis (ISISPA 2003)*, Rome, Italy, September 18-20, **2003**.

**P. Theocharakis**, I. Kalatzis, N. Piliouras, N. Dimitropoulos, E. Ventouras, and D. Cavouras, “Relationship Between Carotid Plaque Composition and Embolization Risk Assessed by Computer Processing of Ultrasound Images”, *International Conference of Computational Methods in Sciences and Engineering 2003 (ICCMSE 2003)*, Kastoria, Greece, September 12-16, **2003**.

#### Research Interests

- Medical image processing and analysis, pattern recognition, segmentation, classification algorithms
- Genetic algorithms, Neural Networks, Hybrid Classification Methods
- MRI Protocols used in Multiple Sclerosis diagnosis and monitoring

#### Foreign Languages

University Of Cambridge, First Certificate In English (A)