

CURRICULUM VITAE

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Key Qualifications:

Ph.D degree in cognitive psychology, MSc in ergonomics BSc in Psychology.
Long teaching experience and research experience in EU funded projects.
Research interests: driving behavior covering a vast area of driving behavior issues (visual perception, attention, psychomotor behavior, mental workload etc.).
Main expertise: visual-spatial perception with emphasis on the design of advanced driver assistance systems.
Since 2008 he has been a certified *Eur-Erg* (European Ergonomist).

Educational Background:

PhD in Cognitive Psychology:

Panteion University, Dept of Psychology, Athens, Greece.
Completed 03/2008

Thesis: "Mental reconstruction of geometrical illusions during driving – effects and behavior adaptation strategies". A new theoretical framework about the perceptual organization of visual information perceived both from the traffic environment and the vehicle is proposed. According to this, the two-dimensional tracking task of vehicle control, namely, the longitudinal task (speed keeping, location or distance of hazards) and the lateral task (maintaining lane position) is realized as a visual-spatial perceptual task that is subjected to the influence of various geometrical illusions.

MSc in Ergonomics:

Loughborough University, Dept of Human Sciences, Loughborough, England.
Completed 12/1998

Thesis: "The potential of ergonomics in the first and half world context".
Courses: system ergonomics, physical environment, anatomy & physiology, anthropometrics, workplace equipment and design.

Recognition of Master Degree, Master of Science (M.Sc) in Ergonomics by the Inter-University Centre for the Recognition of Foreign Diplomas (DIKATSA),
Trades: 25 1-1347. 04/1999

BSc in Psychology:

University of Crete, Dept of Psychology, Rethimno, Greece.
Completed 09/1996

Courses: research methodology, philosophy of sciences, cognitive psychology, social psychology, developmental psychology, neuropsychology, clinical psychology.

Professional Experience:

Department of Product and Systems Design Engineering, University of the Aegean: Lecturer

Undergraduate Courses taught: “Ergonomics”, “Cognitive Science”, “Interaction Design” (collaborative teaching), and “Studio V” (collaborative teaching).
Postgraduate Courses taught: “Design for All and Ergonomics” (collaborative teaching).
10/2008-today

Hellenic Institute of Transport (H.I.T.), Centre for Research and Technology Hellas (CE.R.T.H.): Research assistant with expertise on traffic psychology in the domain of “driving behaviour with advanced driver assistance systems”.
04/2004-09/2007

Department of Psychology, Interdepartmental MSc program in “Organizational and Financial Psychology”, Panteion University: Qualified scientific personnel

Postgraduate Courses taught: “Workplace environment and Equipment”
10/2007- 06/2008 and 10/1999-09/2001

AKTO – art and design school: Lecturer

Undergraduate Courses taught: “Ergonomics”
10/2007-06/2009 (Athens) and 10/2005-09/2006 (Thessaloniki)

Language Skills:

	<i>Speaking skills:</i>	<i>Reading skills:</i>	<i>Writing skills:</i>
Greek	mother tongue	mother tongue	mother tongue
English	excellent	excellent	Excellent

Research Experience:

Project acronym/ start date

AIDE 03/2004 **Title:** Adaptive Integrated Driver-vehicle InterfacE
Proposal/Contract no.: IST-1-507674-IP

48 months **Description of the project:** The AIDE Integrated Project (IP) Consortium consisted of 29 partners from automotive industry, suppliers as well as from European institutes and universities and Co-ordinators of the Project were the following institutes: JRC (Italy), TNO (The Netherlands) and ICCS (Greece). The objectives of AIDE were to maximize the efficiency, and hence the safety benefits, of advanced driver assistance systems (ADAS), to minimize the level of workload and distraction imposed by in-vehicle information systems (IVIS) and nomad devices and to enable the potential benefits of new in-vehicle technologies and nomad devices in terms of mobility and comfort.

Services rendered: Research leader of the CERTH/HIT on-road study for the identification of the long-term effects of ADAS in terms of drivers' behavioural adaptation. Research leader of the CERTH/HIT simulator study for the estimation of accident risk probabilities due to ADAS use under time-pressure.

Deliverables:

- AIDE **D1.1.2** "Preliminary model application to existing ADAS and IVICS and guidelines for implementation in design process"
- AIDE **D1.1.3** "Parameters and indicators of behavioural adaptation to ADAS/IVICS for including in DVE model for preliminary design of AIDE system"
- AIDE **D1.2.1** "Literature review of behavioural effects"
- AIDE **D1.2.2** "General experimental plan for short and long term behavioural assessment"
- AIDE **D1.2.3** "Driver support and information systems: experiments on learning, appropriation and effects of adaptiveness"
- AIDE **D1.2.4** "Long-term phase test and results"
- AIDE **D2.3.1** "Obtaining the functions describing the relations between behaviour and risk"
- AIDE **D2.3.3** "Combining workload and behavioural effects into overall risk reduction estimate"

SENSATION 01/2004 **Title:** Advanced Sensor Development for Attention, Stress, Vigilance & Sleep/Wakefulness Monitoring

48 months **Proposal/Contract no.:** IST-507231

Description of the project: The SENSATION Integrated Project (IP) Consortium consisted of 44 partners from the industry as well as from European institutes and universities and Co-ordinators of the Project were the following institutes: CERTH/HIT and ICCS (Greece), CNRS (France) and Starlab (Spain). The objectives of SENSATION IP were the development of novel sensors technologies, innovative signal processing and computational intelligence algorithms for monitoring, detecting and predicting the human physiological state, in regard to involuntary transition from wakefulness to sleep, in a reliable and unobtrusive way.

Services rendered: Research leader in pilot plan design of the study conducted from all Wopk-package 1 (WP1) partners for the development of a database by correlating the observable (non-intrusive) driving behavioural and vehicle parameters of sleeping drivers in real traffic conditions to the non-observable intrusive measurements of a driver's physiological state by EEG and EOG.

Deliverables:

- SENSATION **D1.7.1** "Alertness Monitoring Database"
- SENSATION **D1.7.2** "Database Specifications"
- SENSATION **D5.8.1** "Pilots Framework Methodology"

AGILE 04/2002 **Title:** Aged people Integration, mobility, safety and quality of Life Enhancement through driving (AG.I.L.E.)
36 **Proposal/Contract no.:** QLRT-2001-00118
months **Description of the project:** The AGILE Project Consortium consisted of 14 partners from several European institutes and universities, and Co-ordinators of the project were the following institutes: CERTH/HIT (Greece), Institute for Occupational Psychology – Univ. Of Dortmund, Vera Fimm Psychologische Testsysteme (Germany) and Swedish Road and Transport Research Institute (Sweden).
The objectives of AGILE were the establishment of rational pan-European policies for delivering certification of fitness to drive and the enhancement of elderly to continue to drive safely for as long as possible, especially for those with early symptoms of dementia. mdrivers suffering from by establishing an aetiological classification of illnesses associated with driving as well as an analysis of elderly drivers' accident statistics and by gathering knowledge through interviews with elderly drivers themselves as well as experts in the fields of driver assessment, driver training and traffic safety.
Services rendered: Research leader in pilots' plan design of the study conducted in three countries (Greece, Belgium, Sweden) for the evaluation of three assessment methods regarding the elderly drivers' fitness to drive. In total, 300 elderly drivers took part.

Deliverables:
AGILE D6.2 "Pilots consolidation"

Affiliations:

Hellenic Ergonomics Society (H.E.S.), Treasurer. 01/2000-today

Publications:

1. Papakostopoulos, V., and Marmaras, N. (2012). Conventional vehicle display panels: the drivers' operative images and directions for their redesign. *Applied Ergonomics*, 43(5), 821-828.
2. Portouli, E., Nathanael, D., Marmaras, N., and Papakostopoulos, V. (2012). Naturalistic observation of drivers' interactions while overtaking on an undivided road. *Work*, 41, 4185-4191.
3. Nathanael, D., Portouli, E., Gkikas, K., and Papakostopoulos, V. (2012). What does a motorcyclist look at while driving at urban arterials? *Work*, 41, 4900-4906.
4. Portouli, E., Papakostopoulos, V. and Marmaras, N. (2011). On-road pilot study on the need for integrated interfaces of in-vehicle driver support systems. In C. Stephanidis (Ed.), *Universal Access in HCI, Part III*, LNCS, 6767, pp. 316-325.
5. Papakostopoulos, V., Spanou, E-G., Nathanael, D., and Gkikas, K. (2010). Understanding overtaking, beyond limitations of the visual system in making spatiotemporal estimations. In W-P. Brinkman and M. Neerinch (Eds.), *Caring Technology for the Future*, Proceedings of the 28th European Conference on Cognitive Ergonomics – EACE 2010, ISBN: 978-94-90818-04-3, pp. 169-172.
6. Papakostopoulos, V., Nathanael, D., and Marmaras, N. (2010). An explorative study of visual scanning strategies of motorcyclists in urban environment. In W-P. Brinkman and M. Neerinch (Eds.), *Caring Technology for the Future*, Proceedings of the 28th European Conference on Cognitive Ergonomics – EACE 2010, ISBN: 978-94-90818-04-3, pp. 157-160.

7. Papakostopoulos, V., and Marmaras, N. (2009). Drawing car dashboards from memory: does driving experience matters? *IEA 2009 – 17th World Congress on Ergonomics*, Beijing, Cina, August 9-14.
8. Papakostopoulos, V., and Marmaras, N. (2008). Designing advanced driver assistance systems (ADAS): what kind of analysis is needed? In W. Karwowski and G. Salvendy (Eds.), *2008 AHFE - 2nd International Conference on Applied Human Factors and Ergonomics*, Ceasars Palace, Las Vegas, Nevada USA, July 14-17, ISBN: 978-1-60643-712-4.
9. Portouli, E., Bekiaris, E., Papakostopoulos, V., and Maglaveras, N. (2007). On-road experiment for collecting driving behavioural data on sleepy drivers. *Somnologie – Schlafforschung und Schlafmedizin*, 11(4), 259-267 (in german).
10. Panou, M., Bekiaris, E., and Papakostopoulos, V. (2007). Modelling driver behaviour in EU and international projects. In P.C. Cacciabue (Ed.), *Modelling driver behaviour in automotive environments: critical issues in driver interactions with intelligent transport systems*. London: Springer, pp. 3-25.
11. Bekiaris, E., Panou, M., Papakostopoulos, V. (2006). Assessment results of an innovative driver assessment system and tools for elderly drivers. *Proceedings of the 13th World Congress on ITS*, London UK, October 8-12.
12. Portouli, E., Gemou, M., Papakostopoulos, V., Bekiaris, E. (2006). HMI pilots for lateral safe applications. *Proceedings of the 13th World Congress on ITS*, London UK, October 8-12.
13. Bekiaris, E., Panou, M., Papakostopoulos, V. and Tsioutras, A. (2006). Results of the assessment of elderly drivers in a driving simulator as part of an assessment protocol. In A. Kemeny (Ed.) *Proceedings of 9th Driving Simulation Conference*, Paris, October 4-6, ISBN: 2-85782-641-9, pp. 233-241.
14. Panou, M., Bekiaris, E. & Papakostopoulos, V. (2005) Modeling driver behaviour in EU and international projects. In L.Macchi, C.Re, and P.C.Cacciabue (Eds.) *Proceedings of the International Workshop on Modelling Driver Behaviour in Automotive Environments*. Ispra, May 25-27, Luxembourg: Office for Official Publication of the European Communities, ISBN: 92-894-9628-2, pp. 5-21.
15. Bekiaris, E., Papakostopoulos, V., Gemou, M., and Gaitanidou, E. (2005). Experimental study on different HMI design options for lateral safe applications. In *Proceedings of 24th Annual European Conference on Human Decision Making and Manual Control – EAM 2005*. Athens, October 17-19, Co-organized by ICCS/ I-Sense Group, PN18, pp. 1-8.
16. Marmaras, N., Poulakakis, G., and Papakostopoulos, V. (1999). Ergonomic design in ancient Greece. *Applied Ergonomics*, 30, 361-368.