# **Modestos Stavrakis**

Researcher/Lecturer

# University of the Aegean

Department of Product and Systems Design Engineering 84100 Ermoupolis, Syros, Greece

# **Curriculum Vitae**

# 1 Personal Details

- E-mail: modestos[at]aegean.gr
- web: www.syros.aegean.gr/users/modestos
- Tel.: +3022810-97119(work), +3022810-97120 (work)

# 2 Contents

| 1 | P                       | ERSON               | AL DETAILS   | 1        |
|---|-------------------------|---------------------|--|----------|
| 2 | CONTENTS                |                     |  | 2        |
| 3 | R                       | ESEAR               | CH INTERESTS   | 3        |
| 4 | Е                       | DUCAT               | ION  | 4        |
| 5 | Е                       | MPLOY               | /MENT  | 5        |
|   | 5.1 ACADEMIC EXPERIENCE |                     |  | 5        |
|   | 5                       | .1.1                | Lecturer: Undergraduate Courses (13):                          | 5        |
|   | 5.                      | .1.2                | Lecturer: Postgraduate Courses (6):                            | 5        |
|   | 5                       | .1.3                | Other Lectures and Lab work (5):                               | <i>6</i> |
|   | 5.2                     | ADMII               | NISTRATIVE AND MANAGERIAL WORK                                 | 6        |
|   | 5.3                     | Отне                | R TEACHING   | 6        |
|   | 5.4 Research            |                     | RCH  | 6        |
|   | 5.5                     | RESEA               | RCH ACTIVITIES   | 8        |
|   | 5                       | .5.1                | Participation in international and national research programs: | 8        |
| 6 | Α                       | CADEN               | /IIC ACTIVITIES  | 10       |
|   | 6.1                     | FINAL               | YEAR PROJECT SUPERVISION & CO-SUPRVISION                       | 10       |
| 7 | R                       | RESEARCH ACTIVITIES |  |          |
|   | 7.                      | .1.1                | Scientific Committee on International Journals (3)             | 10       |
|   | 7.                      | .1.2                | Scientific Committee on International Conferences (4)          | 10       |
| 8 | P                       | PUBLICATIONS        |  |          |
|   | 8.1                     | Publi               | CATIONS IN INTERNATIONAL PEER REVIEWED JOURNALS                | 11       |
|   | 8.2                     | Воок                | CHAPTERS   | 11       |
|   | 8.3                     | PUBLI               | CATIONS IN CONFERENCE PROCEEDINGS                              | 11       |
| 9 | В                       | IBLIOG              | RAPHIC CITATIONS   | 12       |

#### 3 Research Interests

- Interaction Design: Research of the epistemological foundations (theories, methodologies
  and methods) of interaction in social systems, systems of interaction between humanartefact, interactive systems for service design and contextual interaction. Epistemological
  analysis of Systems Thinking and formulation of theories to create frameworks for
  interactive design.
- Human Creativity & Digital Creativity: exploration of human creative processes and human experience in creative situations, creative use of interactive technologies for the creation of designed artefacts and art works. Interactive technologies I study and use include: computer graphics and animation, modeling and computer aided design, information visualization, human-computer interaction, artificial life, electronics and circuit programming. The research in human creativity has also the intention to explore the formation of the creative subject in terms of a systemic framework based on Lacanian psychoanalysis, deconstruction and Self-organising Systems Theory.
- Study the Design of Interactive Systems & Services: analysis and synthesis of methods and methodologies and practical procedures for the design of interactive products (material artifacts and their digital infrastructures) and services. In course application of the findings of the aforementioned studies to the Design Studios of the Department of Products and Systems Design Engineering. Particular emphasis is given in this study to the collaborative aspects of the application of theoretical models and practical techniques of creative interactive design.
- Collaborative Design and Collaborative Systems for Design: Analysis of contexts of Collaborative Design, Design of Computer Supported Collaborative Systems & Digital Asset Management Systems with emphasis in social networking, virtual collaborative systems and systems for remote collaboration.
- Human-computer interaction: Research and development of interfaces for human computer interaction, focused on user centered design for the design of interaction for collaboration. Development of digital tools based on the following technologies: gaze interaction, multitouch technologies, motion capture and motion tracking, data-gloves with force feedback, autostereoscopic screens κτλ.
- Systems of mass customization of designed products: Research and development of methods and technologies for supporting mass customization in the industry of product design. Analysis and development of methods for the design of digital infrastructures for ecommerce to support business-to-business (B2B) and business-to-customer (B2C) relationships.
- Design for all and universal accessibility: Research on the methods and practices for the design of usable and accessible-to-all products and services with particular emphasis on industrial products and digital services.
- Asynchronous e-Learning: Design, development and support for e-learning platforms and course management systems with emphasis in the use of open source software tools. Related platforms inlcude: Gunet e-class, Moodle, Claroline.
- Virtual Reality and Virtual environments: virtual reality and the role of virtual collaboration
  for the design of products. Particular emphasis is given in this study to the use of virtual
  reality tools for the design and development of virtual environments that enhance distancebased collaborative processes for the design of industrial products and digital services.
- Informatics:
  - Programming languages and modern software development tools: C/C++, Java.
  - Scripting languages: PHP, Python, Perl, VBscript, Jscript etc.
  - Open Graphics libraries: DirectX/3D, OpenGL.

- Software tools for 3D design, modeling and animation: Softimage, Maya, 3D Studio, AutoCAD, Pro/Engineer, Z-brush, Mudbox, Lightwave, Blender.
- Software tools for 2D design and illustration: Adobe Photoshop, Illustrator Corel Painter, Gimp.
- Software tools for interaction design, multimedia design, web design etc.: Processing, Adobe Flash, Director, Dreamweaver.
- Rendering Engines: Mental Ray, RenderMan, V-Ray, Brazil, POV-Ray.
- Software tools for developing mobile applications (handhelds, smart-phones, digital pads, κτλ): Android SDK.
- Interaction design, Electronics and circuit programming: Arduino, Processing.
- Interaction design and platforms of natural user interfaces (NUIs): Gaze interaction (ITU gaze tracker), multi-touch screens (NUI Group CCV), haptics (Cybergrasp).

# 4 Education

# ■ 2002-2009 **Doctor of Philosophy in Design (Ph.D)**,

Department of Product and Systems Design Engineering, 84100 Ermoupolis, Syros, Greece.

Supervising Committee: John Darzentas, Nikolaos Sapidis, Thomas Spyrou

Description: "Interaction for Design: A theoretical framework for contextual collaboration" (see <a href="PhD Thesis Link">PhD Thesis Link</a>).

#### ■ 1999-2000 MSc CAGTA (Computer Aided Graphical Technology Applications)

School of Computing and Mathematics, University of Teesside.

Description: Masters Degree in the area of interaction design, computer graphics and visualization. Focus on the development of interactive tools for digital designers. Graphics programming and Algorithm design, visual simulation based on computational approaches, animation.

Funding: E.S.F. funded.

#### ■ 1996-1999 **BA (Honours) Creative Visualisation**

School of Computing and Mathematics, University of Teesside.

Description: Creative use of computer graphics technology for Visualisation, Computational tools for parametric visual representation (simulation), Conceptual Design of digital content, Interactive Application and Multimedia Design, Computer Animation, 3D Modeling, Virtual Reality, Computer Games.

Diploma: First Class Honours.

Funding: Middlesbrough Borough council.

#### ■ 1994 -1996 Interactive Multimedia: 3D Animation and Multimedia,

AKTO Art and Design, Athens.

Description: Interactive multimedia, Computer Animation, Computer Graphics, Interactive Cinema, Cinema Direction, Post-production, Aesthetic principles for design of digital content.

Diploma: First Class. (8,68/10).

# 5 Employment

#### 5.1 Academic Experience

• February 2001 – Today: Researcher/Lecturer, University of the Aegean, Department of Product and Systems Design Engineering.

#### 5.1.1 Lecturer: Undergraduate Courses (13)1:

- 1. **«Informatics II** (ref. 2051)», Academic Years 2001-3, Spring semester. Other Instructors: Lefkothea Vigli-Papadaki, Thomas Spyrou, Argiris Arnellos.
- 2. **«Computer Lab I** (ref. 1051)», Academic Years 2002-3, Winter Semester. Other Instructors: Lefkothea Vigli-Papadaki, Thomas Spyrou, Evangelos Vlachogiannis.
- 3. **«Audio Visual Design** (ref. 7550)», Academic Years 2003-4 & 2007-10, Winter Semester. Other Instructors: Panagiotis Kyriakoulakos.
- 4. **«Multimedia Technologies** (ref. 8050)», Academic Years 2003-4 & 2008-9, Spring semester. Other Instructors: Panagiotis Kyriakoulakos, Sofia Kyratzi.
- 5. **«Computer Animation** (ref. 9602)», Academic Years 2004-10, Spring semester. Other Instructors: Panagiotis Kyriakoulakos.
- 6. **«Traditional Animation»**, Academic Years 2004-7, Spring semester. Other Instructors: Panagiotis Kyriakoulakos. (Lectures and Lab)
- 7. **«Computer Games / Edutainment** (ref. 9851)», Academic Years 2008-9, Winter Semester. Other Instructors: Spyros Vosinakis, Nikos Viorres.
- 8. **«Advanced Computer Animation** (ref. 9950)», Academic Years 2005-10, Spring semester. Other Instructors: Panagiotis Kyriakoulakos, Jenny Darzentas.
- 9. **«Design Studio III, 2D and 3D design with traditional and digital media** (ref. 3252)», Academic Years 2009-11, Winter Semester. Other Instructors: Ioannis Xenakis, Angeliki Brisnovali.
- 10. **«Design Studio VII,** (ref. 7302)», Academic Years 2009-11, Winter Semester. Other Instructors: Ioannis Xenakis, Sergios Fotiadis, Evgenios Scourboutis, Danos Papadopoulos, Panagiotis Dramitinos.
- 11. **«Advanced User Interfaces** (ref. 9800)», Academic Years 2009-11, Winter Semester. Other Instructors: Spyros Vosinakis, Panayiotis Koutsabasis
- 12. «**Design Studio IV, 2D and 3D Design** (ref. 4302)», Academic Years 2010-11, Spring semester. Other Instructors: Ioannis Xenakis.
- 13. «**Design Studio VIII, Interactive Products Design**, (ref. 8301)», Academic Years 2010-11, Spring semester. Other Instructors: Ioannis Xenakis, Sergios Fotiadis, Evgenios Scourboutis, Danos Papadopoulos, Panagiotis Dramitinos.

#### 5.1.2 Lecturer: Postgraduate Courses (6):

- 1. **«Design of Industrial Products and Interactive Systems»**, Academic Years 2002-4, Spring semester. Other Instructors: Panayiotis Koutsabasis, Jenny Darzentas.
- 2. **«Informatics**», Academic Years 2007-10, Winter Semester. Other Instructors: Spyros Vosinakis, Nikos Viorres, Ioannis Xenakis.
- 3. **«Information Systems and Applications»** Academic Years 2007-10, Spring semester. Other Instructors: Spyros Vosinakis, Ioannis Xenakis.

<sup>&</sup>lt;sup>1</sup> For course references visit: <a href="http://www.syros.aegean.gr/undergraduate-studies/description-of-courses.aspx">http://www.syros.aegean.gr/undergraduate-studies/description-of-courses.aspx</a>

- 4. **«Information Systems and Design of Digital Media»** Winter Semester. Academic Years 2010-2011. Other Instructors: Panagiotis Kyriakoulakos, Dimitris Lekkas, Evangelos Vlachogiannis
- 5. **«Design of Industrial Products and Interactive Systems (Design Studio II)»** Spring Semester, Academic Years 2011-. Other Instructors: Panayiotis Koutsabasis, Spyros Vosinakis, Evangelos Vlachogiannis.
- 6. **«HCI2 Advanced User Interfaces»**, Spring Semester, Academic Years 2011-. Other Instructors: Panayiotis Koutsabasis, Spyros Vosinakis.

#### 5.1.3 Other Lectures and Lab work (5):

- 1. **«Interaction Design»**, Undergraduate DPSD, Academic years 2002-3, Spring Semester. Other Instructors: Irini Mevromati. (Lecturing)
- 2. «**Informatics I**», Academic Years 2002-4, Winter Semester. Other Instructors: Thomas Spyrou, Ioannis Gaviotis. (Lab work).
- 3. **«Methods for Developing Product and»**, Academic year 2008, Spring Semester. Other Instructors: Nikolaos Sapidis, Spyros Vosinakis, Sofia Kyratzi. (Lectures and Lab)
- 4. **«Multimedia Design»**, Academic Years 2004-2008, Winter Semester. Other Instructors: Panagiotis Kyriakoulakos. (Lectures and Lab)
- 5. **«Traditional Animation»**, Academic Years 2007-2009, Spring semester. Other Instructors: Panagiotis Kyriakoulakos. (Lectures and Lab)

### 5.2 Administrative and Managerial Work

- 1. 2009-today. Student Advisor (36 students).
- 2. 2002-today. Member of e-Learning Group (edu.aegean.gr) (System Administrator).
- 3. 2003- today. Member of e-Learning Group (Plato webCT-vista) University of the Aegean. (System Administrator and Course Designer)
- 4. 2002- today. Member of the Board of studies in the University of the Aegean, Department of Product and Systems Design Engineering.
- 5. 2008. Member of evaluation committees for hardware supplies, University of the Aegean, Department of Product and Systems Design Engineering.

#### 5.3 Other Teaching

- 2001-2002. Instructor of Partner Trainers for the Greek National project Go-Online (http://www.go-online.gr).
- 2007. Member of the Greek National Center for Public Administration.

#### 5.4 Research

Participation in the following research projects as a researcher with principal activities (depending on the project):

• **May 2002 – today:** University of the Aegean, Department of Product and Systems Design Engineering (DPSD), School of Design.

The scientific subject of the School of Design is the integrated design of Products and Systems, using creatively the knowledge and the ideas emerging from a wide variety of arts and sciences, emphasizing in the exploitation of new technologies. My activities in the department are related to the following design research and development areas: (1) Design of interactive products and services, (2) Design of industrial products, (3) Design of computational systems for the creation of media projects, (4) Design and development of tools and digital systems for the collaborative design of products, (5) Networked technologies related to communication, collaboration and cooperation for supporting design processes, (6) e-Government, (7) Cultural and Educational Technologies, (8) Virtual Reality, (9) Accessibility and Universal Access for people with special needs (10) Interactive Multimedia, (11)

Audiovisual Design, (12) Design of infrastructures that provide services in information technology management agencies (B2B & B2C), (13) Design and evaluation of context of asynchronous e-learning  $\kappa\alpha$  (14) Participation in conference organising, (15) Member of the research group of Interactive Systems Design (IsD-DPSD)(isd.syros.aegean.gr).

Academic and Research Responsibilities:

- Project management, writing proposals and deliverables for Greek national and international projects.
- Participation and presentation of project results in their evaluation (project reviews).
- Design, development, implementation and evaluation of software deliverables,
- System analysis and reporting requirements for the design of interactive products and services,
- Human-Centered analysis and evaluation of interactive systems,

#### Activities in Research and Industrial Projects:

- Exploration of problem space and the design of user scenarios for the design of interactive applications,
- Design of interactive applications in virtual environments for collaborative design,
- Design and development of virtual reality applications,
- Design of interactive interfaces for: online web-based social system platforms / portals mainly related to e-Government,
- Design and Implementation of infrastructures for asynchronous e-Learning (<u>edu.aegean.gr</u>: administrator and main developer)
- Design and development of online collaborative systems for the support of collaborative design processes (<u>cocreate.aegean.gr</u>: administrator and main developer)

**Partners**: Prof. John Darzentas, Prof. Nikolaos Sapidis, Assistant Professor Thomas Spyrou, Associate. Professor Phillip Azariadis, Spyros Vosinakis, Panagiotis Kyriakoulakos, Jenny Darzentas, Argyris Arnellos, Sofia Kyratzi, Evangelos Vlachogiannis, Nikos Viorres, Ioannis Xenakis,

#### • **February 2001 – 2002:** Informatics and Telematics Institute (I.T.I.) (<a href="http://www.iti.gr">http://www.iti.gr</a>)

Informatics and Telematics Institute (I.T.I.) is a research Institute, supported by the Greek Ministry of Education, Lifelong Learning and Religious Affairs and mostly by European, National and Industrial research grants. The Institute collaborates with Imperial College, the University of Surrey and the Aristotelian University of Thessaloniki. My research activities for which I worked in the institute refer to the following areas: (1) 3D modeling of virtual worlds, (2) Media content creation for interactive installations, (3) Interaction design in virtual environments, (4) Photorealistic Rendering in real-time virtual environments, (5) Animation and simulation in virtual environments (6) Computational physics in virtual environments, (7) Signal and Image processing, (8) Pattern Recognition and Machine Learning, (9) Human computer interaction, (10) Artificial Intelligence, (11) Network and communication technologies, (12) e-Goverment, (13) Educational and cultural technologies, (14) Virtual reality, (15) Accessibility for people with special needs (16) Interactive multimedia, (17) Multimedia content and security  $\kappa\alpha$  (18) Design of infrastructure for information technology services to organizations managing cultural heritage (B2B & B2C).

#### Responsibilities:

- Project management, writing proposals and deliverables for Greek national and international projects.
- Participation and presentation of proposals in negotiations with the European Union for their approval,

- Participation and presentation of project results in their evaluation (project reviews) in the European Union.
- Participation and presentation of project results in EU concentration meetings.
- Research and development:
  - Design, development, implementation and evaluation of software
  - Human centered evaluation of interactive systems
  - Compilation of research results on deliverable for research projects,
  - Attendance and presentations at open meetings with project partners in transnational research consortiums.

#### Activities in Research Projects:

- Design of use scenarios and project planning for interactive applications of virtual reality and multimedia.
- Design of interactive virtual reality applications for people with special needs,
- Design and implementation of virtual environments,
- Design of interactive user interfaces (<u>www.go-online.gr</u>),
- Design of engineering applications for virtual assembly,
- Design of user interface for subtitle editing software tool (digital platform MPEG7 (DVDROM & Internet).

**Partners**: Prof. Michael G. Strintzis, Dimitrios Tzovaras, Efstratios Malassiotis, George Nikolakis, George Fergadis, Lambros Makris.

#### 5.5 Research Activities

Academic research and development in the following research fields: Interaction Design, Computational Creativity, Computer Aided Design, 3D Modeling for Product and Media Design, Interactive products and Services, Interactive online Systems and Services, Collaborative Design, Asynchronous e-Learning, Interactive Multimedia, Large Scale Interactive Installations, Management and Design of Multimedia Content, Audiovisual Design, Computer Animation, Interactive Cinema.

#### 5.5.1 Participation in international and national research programs:

#### 5.5.1.1 International Projects and Projects funded by the European Union

- 1. 2001-2002: IST ENORASI, Virtual Environments for the Training of Visually Impaired, IST-2000-25231. (Informatics and Telematics Institute) (This led to J1, C1, C2, C3 & B1)
- 2. 2001-2002: IST REGNET, Cultural Heritage in Regional Networks, IST-2000-26231. (Informatics and Telematics Institute)
- 3. 2001-2002: IST ASPIS, An Authentication and Protection Innovative Software System for DVDROM and Internet, IST-1999-12554. (Ι.Π.ΤΗΛ)
- 4. 2002: IST SHOPLAB, The ShopLab Network for Test and Design of Hybrid Shop Environments based on Multimodal Interface Technologies, IST-2000-28143. (Informatics and Telematics Institute & Systema)
- 5. 2002: IST GUARDIANS (Gateway to User Access of Remote and Distributed Information and Network Services). (University of the Aegean)
- 6. 2003: IST IRIS (Incorporating the Requirements of People with Special Needs or Impairments to Internet-based systems and Services) (University of the Aegean)
- 7. 2005-2007: IST BenToWeb (Benchmarking Tools and Methods for the Web, IST-2-004275). (University of the Aegean)

#### 5.5.1.2 National (Greek) Research Projects

- 1. 2002. Go-Online "ΔΙΚΤΥΩΘΕΙΤΕ" (<u>www.go-onlnine.gr</u>), Educational support project Go-Online Action 1: Information services and support for trainers in practices of electronic commerce. (I.T.I)
- 2. 2002: VRSENSE (SDK), Software tool for advanced data services using virtual reality (3D games, VR-NARRATOR / VR-STORYTELLER, Virtual Assembly Planning, Virtual Exhibition). (I.T.I)
- 3. 2002-2010. Educational platform for the Department of Product and Systems Design Engineering. Design of asynchronous e-learning platform (http://edu.aegean.gr)
- 4. 2002-2004. EQUAL NE $\Omega$ PION II Promoting competitiveness to ensure employment in shipbuilding. Co-funded project of the European Union.
- 5. 2002-2004. EQUAL RHODOS, Island Confederacy Equal Access. Web Portal Design and Development
  - Design of an asynchronous e-learning platform within the context of the project. (<a href="http://edu.aegean.gr/equalRhodos">http://edu.aegean.gr/equalRhodos</a>)
- 6. 2003. Furniture Industry. Development of a 3D environment for the visualisation of three-dimensional furniture objects furniture industry and interior design. (I.T.I Systema)
- 7. 2004. EQUAL EUNETYARD, Promotion of competitiveness and insurance of occupation on shipbuilding industry (transnational) (<a href="http://www.labor-ministry.gr/ekt/equal/">http://www.labor-ministry.gr/ekt/equal/</a>)
- 8. 2004. EPYNA: Educational Portal of South Aegean (2004), Educational Portal of South Aegean (<a href="http://www.epyna.gr">http://www.epyna.gr</a>)
- 9. 2004. WATCH OUT Eyes of the City (Olympic Games Interactive Game Installation, Athens 2004).
  - Design of Interactive Application: implementation of digital image processing / video and video signal distribution across the network (video streaming services). Database design, processing of messages through SMS server, subtitling in real-time. (<a href="http://www.watch-out.net/">http://www.watch-out.net/</a>) (Maurice Benayoun, Fantasia audiovisual L.t.d. Greece) (The work has been published in C5)
- 10. 2004-2006. EUREKA RIGHTFIT I, Making Garments That Fit Consumers' Needs And Wants. EU.
- 11. 2005-2010. EUREKA RIGHTFIT II, Making Garments That Fit Consumers' Needs And Wants. EU.
- 12. 2004-2010. DesignReq, Architecture and implementation of a collaborative system for the design of furniture (ΕΛ.ΚΕ.ΔΕ).
- 13. 2005. Design of metadata infrastructures. (DPSD)
- 14. 2005. Expo2005, Design of five interactive installations of modern Greece for the Greek Pavilion at the International Exhibition in Japan (March September 2005), Production: Cinegram L.t.d, Post Reality L.t.d.
- 15. 2005. E-University, Design and development of prototype infrastructures and advanced services for the manifestation of e-University. Research, design implementation and operation of U-PORTAL & WAI. (<a href="http://e-university.gunet.gr/">http://e-university.gunet.gr/</a>)
- 16. 2006. Reform of undergraduate studies (project 5). (DPSD)
- 17. 2007-. E-FOLKART, Electronic services in support of traditional folk art. (ΕΛ.ΚΕ.Α.)
- 18. 2007-. "Marine Concepts" Interactive Multimedia for the presentation of the Naval Museum of Greece. Production: Fantasia audiovisual L.t.d..

- Design and implementation of interactive multimedia for the presentation of historical content and services of the museum.
- 19. 2006-2010. EUREKA F-JEWEL, Functional Jewellery That Adds Aesthetics And Durability To Quality-Of-Life Enhancing Medical Appliances. EU.
- 20. 2008-. Collaborative Design and Internet Marketing industry in the People's Folk Art. (Interaction design and collaborative system design) (ΕΛ.ΚΕ.Α.)
- 21. 2008-. Design of infrastructures for asynchronous e-learning for postgraduate courses « Holistic Alternative Systems Classical Homeopathy ». (University of the Aegean)
- 22. 2008-2009. Acropolis, 12 minute Stereoscopic video presenting a reconstruction of the Acropolis cultural and historical area. Modern Acropolis Museum. (Production PLD L.t.d)
- 23. 2008-2009. Ancient Temple, 10 minute Stereoscopic video presenting a reconstruction of the Acropolis cultural and historical area. Modern Acropolis Museum. (Production PLD L.t.d)

# 6 Academic Activities

- **2002-today:** Researcher, Member of the Interactive Systems Research Group (DPSD Prof. John Darzentas).
- 2003-2007: PhD.
- **2000-2002:** Researcher, Member of the Virtual Reality (I.T.I. Michael G. Strintzis).

### 6.1 Final year project supervision & co-suprvision

- Supervised and supervising twenty (20) final year projects in the Department of Product and Systems Design Engineering (Graduate and Post-Graduate Programmes):
- Co-supervision of thirteen (13) final year projects in the Department of Product and Systems Design Engineering (Graduate and Post Graduate Degrees):

#### 7 Research Activities

- 7.1.1 Scientific Committee on International Journals (3)
  - IEEE Multimedia
  - International Journal of Design
  - Universal Access in the Information Society

#### 7.1.2 Scientific Committee on International Conferences (4)

- Human Computer Interaction, CHI2004, Vienna Austria
- Human Computer Interaction International HCII, 2003-
- 5th Hellenic Conference on Artificial Intelligence, Setn2008, Ermoupolis Syros
- Accessible Design in the Digital World Conference.

# 8 Publications

#### 8.1 Publications in International Peer Reviewed Journals

- J1. Tzovaras, D., Nikolakis, G., Fergadis, G., Malassiotis, S., & Stavrakis, M. (2004). Design and implementation of haptic virtual environments for the training of the visually impaired. Neural Systems and Rehabilitation Engineering, IEEE Transactions on [see also IEEE Trans. on Rehabilitation Engineering], 12(2), 266-278. doi:10.1109/TNSRE.2004.828756.
- J2. Koutsabasis, P., Stavrakis, M., Viorres, N., Darzentas, J., Spyrou, T., & Darzentas, J. (2008). A descriptive reference framework for the personalisation of e-business applications. Electronic Commerce Research, 8(3), 173-192. Springer, doi:10.1007/s10660-008-9021-1.
- J3. Vosinakis, S., Koutsabasis, P., Stavrakis, M., Viorres, N., & Darzentas, J. (2008). Virtual Environments for Collaborative Design: Requirements and Guidelines from a Social Action Perspective. CoDesign, 4(3), 133-150. doi:10.1080/15710880802250112.
- J4. Koutsabasis, P., Stavrakis, M., Spyrou, T., & Darzentas, J. (2011). Perceived impact of asynchronous e-learning after long-term use: implications for design and development. International Journal of Human-Computer Interaction.

#### 8.2 Book Chapters

B1. Tzovaras, D., Nikolakis, G., Fergadis, G., Malassiotis, S., & Stavrakis, M. (2002). Virtual Environments for the Training of Visually Impaired. In S. Keates, P. Clarkson, P. Langdon, & P. Robinson (Eds.), Universal Access and Assistive Technology. London: SPRINGER-VERLAG LONDON LIMITED.

# 8.3 Publications in Conference Proceedings

- C1. Tzovaras, D., Nikolakis, G., Fergadis, G., Malassiotis, S., & Stavrakis, M. (2002). ENORASI Design and Implementation of Virtual Environments for Training of the Visually Impaired. In ASSETS 2002 (pp. 41-48). Presented at the SIGCAPH ACM, Edinburg, UK. Retrieved from http://portal.acm.org/citation.cfm?id=638249.638259.
- C2. Tzovaras, D., Nikolakis, G., Fergadis, G., Malassiotis, S., & Stavrakis, M. (2002c). Feasibility Study of a Human-Computer Interaction System for the Training of Visually Impaired. In SETN-2002. Presented at the 2nd Hellenic Conference On Artificial Intelligence, Thessaloniki, Greece.
- C3. Tzovaras, D., Nikolakis, G., Fergadis, G., Malassiotis, S., & Stavrakis, M. (2002a). Virtual Environments for the Training of Visually Impaired (pp. 151-160). Presented at the CUWATTS Conference, Cambridge. (δημοσιεύθηκε και ως κεφάλαιο βιβλίου. Βλ. Β1)
- C4. Stavrakis, M., Spyrou, T., & Darzentas, J. (2003). Synthesising Creativity: Systems to support interactive human processes for aesthetic product design. Presented at the 10th International Conference on Human Computer Interaction (HCII2003), Crete, Greece.
- C5. Kyriakoulakos, P., Stavrakis, M., & Benayoun, M. (2007). From Immersion Art to Fusion Art: Watch-Out! The Eyes of the City in Athens 2004 Olympic Games. Poster presentation presented at the Intuition 2007, Athens. Retrieved from <a href="http://www.intuition2007.org/">http://www.intuition2007.org/</a>
- C6. Stavrakis, M., Chnarakis, N., Gavogiannis, A., Spyrou, T., & Darzentas, J. (2007). A multimethodological view for the collaborative design of virtual environments. Presented at the 4th Intuition International Conference and Workshop, Athens.
- C7. Viorres, N., Xenofon, P., Stavrakis, M., Vlachogiannis, E., Koutsabasis, P., & Darzentas, J. (2007). Major HCI Challenges for Open Source Software Adoption and Development. In Lecture Notes in Computer Science, Online Communities and Social Computing (Vol. 4558, pp. 455-464). Springer. Retrieved from <a href="http://dx.doi.org/10.1007/978-3-540-73257-0\_50">http://dx.doi.org/10.1007/978-3-540-73257-0\_50</a>.
- C8. Stavrakis, M., Viorres, N., Koutsabasis, P., & Darzentas, J. (2007). A Theoretical Framework of Copurposing in Systems Design. In Lecture Notes in Computer Science, Human Interface and the Management of Information. Interacting in Information Environments (Vol. 4558, pp. 176-184). Springer. Retrieved from <a href="http://dx.doi.org/10.1007/978-3-540-73354-6">http://dx.doi.org/10.1007/978-3-540-73354-6</a> 20.

- C9. Vosinakis, S., Koutsabasis, P., Stavrakis, M., Viorres, N., & Darzentas, J. (2007). Supporting Conceptual Design in Collaborative Virtual Environments. Presented at the 11th Panhellenic Conference on Informatics (PCI 2007), Patras, Greece.
- C10. Dougalis, E., Stavrakis, M., & Koutsabasis, P. (2008). Supporting educational processes in academia with a collaborative content management platform: longitudinal implications in education, administration and social life. In ICIETE2008. Presented at the International Conference on Institutional Evaluation Techniques in Education, Samos, Greece.
- C11. Verigakis, N., Stavrakis, M., & Darzentas, J.D. (2010). Educational Interactive Storytelling for Narrative Comprehension and Recall in Dyslexic Children: Employing a Mythic Narrative Structure. In First International Workshop on Interactive Storytelling for Children. Presented at the IDC 2010, Barcelona, Spain: ACM.

# 9 Bibliographic Citations

• **Thirty two (32)** bibliographic citations (April 2011): 15 for journal paper [J1], 2 for journal paper [J2], 3 for conference paper [C1], 1 for conference paper [C3], 1 for conference paper [C4], 7 for conference paper [C7], 2 for conference paper [C9], 1 for conference paper [C11].

#### In detail:

- **[J1]** Tzovaras, D., Nikolakis, G., Fergadis, G., Malassiotis, S., & Stavrakis, M. (2004). Design and implementation of haptic virtual environments for the training of the visually impaired. Neural Systems and Rehabilitation Engineering, IEEE Transactions on [see also IEEE Trans. on Rehabilitation Engineering], 12(2), 266-278. doi:10.1109/TNSRE.2004.828756.
  - 1. Aguilera, E. J. G., Bernsen, N. O., Rodríguez, S., Bescós, L. D., Fanard, F. X., Correa, P., Hernandez, B. M., et al. (2004). Project ref. no. FP6-507609 Project acronym SIMILAR Deliverable status R Contractual date of delivery.
  - 2. Jason Rotella, (2005). Predictive Tracking of Quasi Periodic Signals for Active Relative Motion Cancellation in Robotic Assisted Coronary Artery Bypass Graft Surgery, M.S. Thesis, Case Western Reserve University. Retrieved fr. http://robotics.case.edu/publications.html
  - 3. Kahol, K., Tripathi, P., McDaniel, T., & Panchanathan, S. (2005). Modeling context in haptic perception, rendering and visualization. Advances in Multimedia Information Systems, Proceedings, 3665, 102-114.
  - 4. Kahol, K., Tripathi, P., & Panchanathan, S. (2005). Haptic User Interfaces: Design, testing and evaluation of haptic cueing systems to convey shape, weight, material and texture information. Human-Computer Interaction, Las Vegas Nevada.
  - 5. Formaglio, A., & Prattichizzo, D. (2005). A smooth approximation of mobile platform displacement for mobile haptic interfaces. In Proceedings of 2nd international conference on enactive interfaces, Genoa.
  - 6. Karpov, A., Ronzhin, A., Nechaev, E., & Chernakova, S. (2005). Multimodal system for handsfree PC control. *IN PROC. OF 13-TH EUROPEAN SIGNAL PROCESSING CONFERENCE EUSIPCO-2005*.
  - 7. Aysal, T. C., & Barner, K. E. (2006). Stochastic and Deterministic Models for Haptic Pseudo-Textures. In *Haptic Interfaces for Virtual Environment and Teleoperator Systems, International Symposium on* (Vol. 0, p. 71). Los Alamitos, CA, USA: IEEE Computer Society. doi:http://doi.ieeecomputersociety.org/10.1109/VR.2006.125
  - 8. Kahol, K., Tripathi, P., Mcdaniel, T., Bratton, L., & Panchanathan, S. (2006). Modeling context in haptic perception, rendering, and visualization. *ACM Trans. Multimedia Comput. Commun. Appl.*, *2*(3), 219-240. doi:10.1145/1152149.1152153
  - 9. Kaklanis, N., Gonzalez Calleros, J. M., Vanderdonckt, J., (2008). Hapgets, Towards Haptically-enhanced Widgets based on a User Interface Description Language. E.D.

- Tzovaras, D., In Proc. of Multimodal interaction through haptic feedback (MITH) Workshop. Naples.
- Pascale, M., Mulatto, S., & Prattichizzo, D. (2008). Bringing Haptics to Second Life for Visually Impaired People. In Proceedings of the 6th international conference on Haptics: Perception, Devices and Scenarios (pp. 896-905). Madrid, Spain: Springer-Verlag. Retrieved from http://portal.acm.org/citation.cfm?id=1423891
- 11. Μπάντιος, Α. (2008). Σχεδίαση εκπαιδευτικού παιχνιδιού ως βοήθημα ανάπτυξης δεξιοτήτων προσανατολισμού και κινητικότητας από άτομα με προβλήματα όρασης (Διπλωματική Εργασία). Πανεπιστήμιο Αιγαίου, Σύρος.
- 12. Kahol, K., & Panchanathan, S. (2008). Neuro-cognitively inspired haptic user interfaces. Multimedia Tools Appl., 37(1), 15-38, Springer
- 13. Binns, A., Bunce, C., Dickinson, C., Harper, R., Tudor-Edwards, R., & Woodhouse, M. (2009). Low vision service outcomes: a systematic review. Low Vision Service Model Evaluation (LOVSME) project.
- 14. Jonson, K. A. (2009). Multi-Sensory Human Computer Interaction: Enabling the Visually and/or Hearing Impaired Computer Users (Master's thesis). University of Colorado, Colorado Springs.
- 15. Perez, C., Donoso, J., & Medina, L. (2010). A critical experimental study of the classical tactile threshold theory. BMC Neuroscience, 11(1), 76. doi:10.1186/1471-2202-11-76
- **[J2]** Koutsabasis, P., Stavrakis, M., Viorres, N., Darzentas, J., Spyrou, T., & Darzentas, J. (2008). A descriptive reference framework for the personalisation of e-business applications. Electronic Commerce Research, 8(3), 173-192. Springer, doi:10.1007/s10660-008-9021-1.
  - 16. Mohammad Arshad Sheikh, (2009) Conversion Rate Problem of SMEs in Internet Marketing a Developing Country Perspective, MSc Thesis, Blekinge Institute of Technology, School of Management.
  - 17. Casemore, C. (2008) E-Marketing and E-Commerce: Revolutionizing the Business Sector, University of Guelph, Guelph, ON.
- **[C1]** Tzovaras, D., Nikolakis, G., Fergadis, G., Malassiotis, S., & Stavrakis, M. (2002). ENORASI Design and Implementation of Virtual Environments for Training of the Visually Impaired. In ASSETS 2002 (pp. 41-48). Presented at the SIGCAPH ACM, Edinburg, UK.
  - 18. Avizzano, C., Marcheschi, S., Angerilli, M., Fontana, M., Bergamasco, M., Gutierrez, T., & Mannegeis, M. (2003). A multi-finger haptic interface for visually impaired people. In Robot and Human Interactive Communication, 2003. Proceedings. ROMAN 2003. The 12th IEEE International Workshop on (pp. 165-170). Presented at the Robot and Human Interactive Communication, 2003. Proceedings. ROMAN 2003. The 12th IEEE International Workshop on. doi:10.1109/ROMAN.2003.1251838
  - 19. Williams, P., Jamali, H. R., & Nicholas, D. (2006). Using ICT with people with special education needs: what the literature tells us. *Aslib Proceedings*, *58*(4), 330-345. doi:10.1108/00012530610687704
  - 20. Trewin, S., Laff, M., Hanson, V., & Cavender, A. (2009). Exploring Visual and Motor Accessibility in Navigating a Virtual World. *ACM Trans. Access. Comput.*, *2*(2), 1-35. doi:10.1145/1530064.1530069
- **[C3]** Tzovaras, D., Nikolakis, G., Fergadis, G., Malassiotis, S., & Stavrakis, M. (2002a). Virtual Environments for the Training of Visually Impaired (pp. 151-160). Presented at the CUWATTS Conference, Cambridge.
  - 21. Lécuyer, A., Mobuchon, P., Mégard, C., Perret, J., Andriot, C., & Colinot, J. (2003). HOMERE: a Multimodal System for Visually Impaired People to Explore Virtual Environments. PROC. OF IEEE VR, 251--258.

- **[C4]** Stavrakis, M., Spyrou, T., & Darzentas, J. (2003). Synthesising Creativity: Systems to support interactive human processes for aesthetic product design. Presented at the 10th International Conference on Human Computer Interaction (HCII2003), Crete, Greece.
  - 22. Hellinger, U. (2007). Computational support of human creativity in design (Master's thesis). Laboratoire d' informatique Grenoble Equipe MAGMA, Institut f'ur Algorithmen und kognitive Systeme, Grenoble.
- **[C7]** Viorres, N., Xenofon, P., Stavrakis, M., Vlachogiannis, E., Koutsabasis, P., & Darzentas, J. (2007). Major HCI Challenges for Open Source Software Adoption and Development. In Lecture Notes in Computer Science, Online Communities and Social Computing (Vol. 4558, pp. 455-464). Springer. Retrieved from http://dx.doi.org/10.1007/978-3-540-73257-0\_50.
  - 23. Iivari, N. (2008) Empowering the users? A critical textual analysis of the role of users in open source software development, accepted for publication, AI & Society, Springer.
  - 24. Iivari, N. Hedberg, H. and Kirves, T. (2008) Usability in Company Open Source Software Context Initial Findings from an Empirical Case Study, in Open Source Development, Communities and Quality, IFIP, pp. 359-365, ISBN: 978-0-387-09683-4.
  - 25. Hedberg, H. & Iivari, N. (2009) Integrating HCI Specialists into Open Source Software Development Projects, in C. Boldyreff et al. (Eds.): Open Source Software 2009, IFIP AICT 299, pp. 251–263, 2009.
  - 26. Bach, P.M. (2009) Supporting the User Experience in CodePlex, an Open Source Project Hosting Website, in Proceedings of the 5th International Conference on Open Source Systems (OSS 2009), Doctoral Consortium, June 3, 2009, Skovde, Sweden, June 3–6, 2009, pp. 95-107.
  - 27. Iivari, N. (2009) "Constructing the users" in open source software development: An interpretive case study of user participation, Information Technology & People, Year: 2009, Volume: 22, Issue: 2, Pages: 132 156, Emerald Group Publishing Limited.
  - 28. Iivari, N. (2009) Discourses on User Participation: Findings from Open source Software Development Context, Chapter IV in Panayiotis Zaphiris (Ed.) Cross-Disciplinary Advances in Human Computer Interaction, Idea Group Inc.
  - 29. Rasa, A. & Capretz, L.F. (2010) Contributors' preference in open source software usability: an empirical study, International Journal of Software Engineering & Applications Vol. 1, Num. 2, April. 2010.
- **[C9]** Vosinakis, S., Koutsabasis, P., Stavrakis, M., Viorres, N., & Darzentas, J. (2007). Supporting Conceptual Design in Collaborative Virtual Environments. Presented at the 11th Panhellenic Conference on Informatics (PCI 2007), Patras, Greece.
  - 30. Uflacker, M. (2009) Computational Analysis of Virtual Team Collaboration in the Early Stages of Engineering Design, in Meinel, C. et al (Eds) Proceedings of the 4th Ph.D. Retreat of the HPI Research School on Service-Oriented Systems Engineering, Fall 2009, University of Potsdam.
  - 31. Uflacker, M., & Zeier, A. (2011). A semantic network approach to analyzing virtual team interactions in the early stages of conceptual design. Future Gener. Comput. Syst., 27(1), 88-99.
- **[C11]** Verigakis, N., Stavrakis, M., & Darzentas, J. (2010). Educational Interactive Storytelling for Narrative Comprehension and Recall in Dyslexic Children: Employing a Mythic Narrative Structure. In First International Workshop on Interactive Storytelling for Children. Presented at the IDC 2010, Barcelona, Spain: ACM.

32. Garzotto, F., Paolini, P., & Sabiescu, A. (2010). Interactive storytelling for children. In Proceedings of the 9th International Conference on Interaction Design and Children (pp. 356-359). Barcelona, Spain: ACM. doi:10.1145/1810543.1810613.