

MOUSTAKAS KONSTANTINOS

ELECTRICAL AND COMPUTER ENGINEER

Date of birth: 29 August 1980

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Informatics and Telematics Institute

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◆ Education

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| 2003 - | PhD candidate at the Electrical and Computer Engineering Department of the Polytechnic Faculty of the Aristotle University of Thessaloniki.

Supervisor: Michael. G. Strintzis.

PhD subject: "Novel techniques of intelligent objects for the development of advanced prototyping methods". |
| 1998 - 2003 | Degree of the Electrical and Computer Engineering Department of the Polytechnic Faculty of the Aristotle University of Thessaloniki (Electronics and Computer section).

Final Thesis Subject: Development of a semi-automatic tool for depth estimation for the generation of stereoscopic sequences from monoscopic. |

◆ Research – Professional Experience

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| 2003 - | Postgraduate Research Fellow, Informatics and Telematics Institute / Centre for Research and Technology Hellas (ITI/CERTH). Participation in the following R&D projects: |
| 2003 - | VR@Theater: Virtual Reality Toolbox for Theater Professionals", GSRT, EPAN-Culture, 2003-2006. |
| 2003 | POLEIS: Virtual Cultural Tours, GSRT, PABET-NE. |

◆ Teaching Experience

2004 - 2005 Lecturer in the course "Digital Filters" of the 8th semester of the Electrical and Computer Engineering Department of the Aristotle University of Thessaloniki.

◆ Foreign Languages

English Perfect Knowledge. Proficiency in English (University of Cambridge)
German Perfect Knowledge. Oberstufe.

◆ Technical Skills

Operating systems: Windows 95/98/00/XP
Programming lan- C, C++, Visual C++, PASCAL, FORTRAN.
guages:
Software: Microsoft Visual Studio 6, Microsoft Visual Studio.NET, Borland
C++ Builder 5, MS Office 2000/XP, Matlab 6, 3Dsmx, Poser.

◆ Speeches – Presentations

Cybertherapy-ATMN Presentation of research projects (Basel, 2005)
IEEE VR2005: Presentation of research project (Bonn, 2005)
CASA2004: Presentation of research project (Geneva, 2004)
W3C-WMI 2004: Presentation of research project (Sophia-Antipolis, France, 2004)
ICTs – Digital Arts: Presentation of research project (Athens, 2003)

◆ Research Interests

Virtual Reality. Realistic simulations of complex virtual environments. Alternative modeling of rigid virtual 3D objects. 3D content-based search and retrieval. Dynamical simulation of deformable virtual objects. Stereoscopic vision and processing. Computer vision. Multimedia.

◆ Memberships

Member of the Technical Chamber of Greece.

◆ Publications

Book chapters:

- K. Moustakas, G. Nikolakis, D. Tzovaras and M.G. Strintzis, "Haptic Access to Virtual Models of Real Data for Training the Visually Impaired", Applied Technologies in Medicine and Neuroscience, Verlag Integrative Psychiatrie, ISBN 3-85184-027-5, 2005.
- K. Moustakas, G. Nikolakis, D. Tzovaras and M.G. Strintzis, "Haptic Interface for the Performance of a Remote Echography Examination", Applied Technologies in Medicine and Neuroscience, Verlag Integrative Psychiatrie, ISBN 3-85184-027-5, 2005.

Journals

- K. Moustakas, D. Tzovaras and M.G. Strintzis, "Stereoscopic Video Generation Based on Efficient Layered Structure and Motion Estimation from a Monoscopic Image Sequence", IEEE Transactions on Circuits and Systems for Video Technology, vol. 15, no.8, pp. 1065-1073, August 2005.

Conferences:

- K. Moustakas, P. Daras, D. Tzovaras and M.G. Strintzis, "Classification of 3D Models using Combined Semantical and Geometrical Information", Workshop towards Semantic Virtual Environments (SVE2005), March 2005, Villars, Switzerland.
- K. Moustakas, G. Nikolakis, D. Tzovaras and M.G. Strintzis, "Haptic Interaction with a Virtual Environment Dynamically Created from a Monoscopic Video", in HCI International, July 2005, Las Vegas.
- G. Nikolakis, K. Moustakas, D. Tzovaras and M.G. Strintzis, "Haptic Representation of Images for the Blind and the Visually Impaired", in HCI International, July 2005, Las Vegas.
- K. Moustakas, D. Koutsonanos, D. Tzovaras and M.G. Strintzis, "Enhancing Costume designer Creativity Utilizing Haptic Interaction in Cloth Editing Applications", in HCI International, July 2005, Las Vegas.
- K. Moustakas, G. Nikolakis, D. Tzovaras and M.G. Strintzis, "Haptic Feedback Using an Efficient Superquadric Based Collision Detection Method", in First Joint Eurohaptics Conference and Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems, March 2005, Pisa.
- K. Moustakas, G. Nikolakis, D. Tzovaras and M.G. Strintzis, "A Geometry Education Haptic VR Application Based on a New Virtual Hand Representation", in IEEE VR2005, March 2005, Bonn.
- D. Koutsonanos, K. Moustakas, D. Tzovaras and M.G. Strintzis, "Interactive Cloth Editing and Simulation in Virtual Reality Applications for Theater Professionals", 5th International Symposium on Virtual Reality, Archaeology and Cultural Heritage (Eurographics), December 2004, Brussels.
- K. Moustakas, D. Tzovaras and M.G. Strintzis, "Optimal Hierarchical Representation and Simulation of Cloth and Deformable Objects", IEEE International Conference on Image Processing ICIP2004, October 2004, Singapore.
- K. Moustakas, D. Tzovaras and M.G. Strintzis, "A Non Causal Bayesian Framework for Object Tracking and Occlusion Handling for the Synthesis of Stereoscopic Video", 2nd Inter. Symposium on 3D Data Processing, Visualization and Transmission (3DPVT'04), Thessaloniki, September, 2004.

- K. Moustakas, D. Tzovaras and M.G. Strintzis, "Fast Hierarchical Simulation of Cloth and Deformable Objects using an Optimal Pyramidal Representation", International Conference on Computer Animation and Social Agents, CASA2004, pp. 163-170, July 2004, Geneva.
- K. Moustakas, G. Nikolakis, D. Tzovaras and M.G. Strintzis, "Extraction of 3D Scene Structure from a Video for the Generation of 3D Visual and Haptic Representations", W3C Workshop on Multimodal Interaction, Sophia Antipolis, France, July, 2004.
- K. Moustakas, D. Tzovaras and M.G. Strintzis, "Stereoscopic Video Authoring Tool based on Efficient Object-based Structure and Motion Estimation from a Monoscopic Image Sequence", 2nd International Workshop on ICTs, Arts and Cultural Heritage, Athens, October 2003.