2011 IEEE 1st International Conference on Serious Games and Applications for Health

(SeGAH 2011)

Braga, Portugal
16-18 November 2011

SeGAH 2011 Programme

11:00	**OP1 - Oral Presentation**	<u>**Simulation and Virtual Environments**</u>
	OP1.1 **#223**	**Simulation of Visual Impairments with the Unreal Game Engine** James Lewis, David Brown, Robert Mason, Wayne Cranton *Nottingham Trent University, United Kingdom*
	OP1.2 **#22;**	**An Intelligent and Persistent Browser-Based Game** **for Oil Drilling Operators Training** Igor Brasil, Francisco Neto, José Chagas, Rodrigo Lima, Daniel Souza, Mara Bonates, André Lima *Universidade Federal do Semiarido (UFERSA), Brazil* *PETROBRAS, Brazil*
	OP1.3	~~**Virtual Tutor in MRI Learning**~~ ~~João Valente, Veronika Kozlova, Carlos Lima~~ ~~*ESALD IPCB, Portugal*~~ ~~*Universidade do Minho, Portugal*~~ **NO SHOW**
	OP1.4 **#23:**	**Military war games edutainment** Paulo Simões and Cláudio Ferreira *IPCA, Portugal*
12:40	**Lunch**	
14:30	**OP2 - Oral Presentation**	<u>**Patient Education, Public Health Education and**</u> <u>**Game-based Learning**</u>
	OP2.1 **#247**	**Smartphone's Physiatric Serious Game** Dario Deponti, Dario Maggiorini, Claudio E. Palazzi *Università degli Studi di Milano, Italy*
	OP2.2 **#255**	**The psychology serious game for preschool children** Agnieszka Szczesna, Jakub Grudzinski, Tomasz Grudzinski, Robert Mikuszewski, Adrian Debowski *Silesian University of Technology, Institute of Informatics, Poland*
	OP2.3 **#259**	**Change your lifestyle or your game is over** **The design of a serious game for Diabetes** Harmen Nauta, Ton Spil *Motek, Netherlands* *University of Twente, Netherlands*
15:30	**Poster**	<u>**Poster Flash-Presentations**</u>

P1 **#266**	**A Serious Game Prototype for Education of Medical Doctors and Students about Insulin Management for the Treatment of Diabetes Mellitus** Leandro A. Diehl, Eldon D. Lehmann, Rodrigo M. Souza, Juliano B. Alves, Roberto Z. Esteves, Pedro A. Gordan *Health Sciences Center, State University of Londrina, Londrina, Brazil* *Department of Imaging (MRU), Imperial College, Royal Brompton Hospital, London, UK* *Oniria Software Industry, Londrina, Brazil* *Department of Medicine, State University of Maringá, Maringá, Brazil*
P2 **#26:**	**Central Hospital - Master of Resuscitation** **An immersive learning approach** M. Monteiro, A. Corredoura, M. Candeias, P. Morais, J. Diniz, M. Monteiro, A. Corredoura *Stand Clear, Lda., Lisbon, Portugal* *Serviço de Urgência Geral, Centro Hospitalar Lisboa Ocidental, Lisbon, Portugal*
P3 **#274**	**Hand Hygiene Training through a Serious Game:** **New Ways of Improving Safe Practices** M. Vázquez-Vázquez,V. Santana-López, M. Skodova, J. Ferrero-Álvarez-Rementeria, A. Torres-Olivera *Andalusian Patient Safety Observatory, Seville, Spain* *Andalusian Agency for Healthcare Quality, Seville, Spain*
P4 **#276**	**Endoscopy – Brief Hystorical Survey, Developments and Therapeutics** Ana Libório, Sylvie Couto, António Cunha, Paulo Coelho *Department of Engineering, Trás-os-Montes and Alto Douro University, Vila Real, Portugal* *Department of Electrothecnical Engineering, Polytechnic Institute of Leiria, Leiria, Portugal*
P5 **#27:**	**Wiitherapy on seniors** **Effects on physical and mental domains** Filipe R. Portela, Ricardo J. C. Correia, João A. Fonseca, Joana M. Andrade *Carlton Life* *Biostatistics and Medical Informatics Department, Faculty of Medicine - University of Porto, Portugal*
P6 **#285**	**Aims vs. Technology** **Pedagogical view to the use of educational applications in safety critical contexts** Antti Pirhonen, Minna Silvennoinen *Department of Computer Science and Information Systems, University of Jyväskylä, Jyväskylä, Finland*
P7 **#292**	**Help System for Medical Diagnosis of the Electrocardiogram** João Paulo Teixeira, Vanda Lopes *School of Technology and Management, Polytechnic Institute of Bragança, Bragança, Portugal* *University of Minho, Braga, Portugal*
P8 **#29:**	**Serious Game as a Tool to Intellectual Disabilities Therapy: Total Challenge** Tiago Martins, Vítor Carvalho, Filomena Soares and Fatima Moreira *Industrial Electronics Department, University of Minho, Portugal* *APPACDM, Association for Mental Disable People*
16:10 **Coffee Break + Poster Session**	**Poster Session**
16:40 **OP3 - Oral Presentation**	**Clinical Training, Healthcare Professionals Training and Surgery**
OP3.1 **#2: 7**	**Computer Surgery 3D Simulations for a New Teaching-Learning Model** Gonzalo Esteban, Camino Fernandez, Vicente Matellan, Jose Manuel Gonzalo *Dept. of Mechanics, Computer Science and Aeronautics, University of Leon, Leon, Spain* *Dept. of Veterinary Medicine, Surgery and Anatomy, University of Leon, Leon, Spain*

OP3.2 **#2: ;**		**A laparoscopic surgery training interface** Sandro F. Queirós, João L. Vilaça, Nuno F. Rodrigues, Sara C. Neves, Pedro M.Teixeira and Jorge Correia-Pinto *Life and Health Sciences Research Institute, University of Minho. 4710-057 Braga, Portugal* *DIGARC, Polytechnic Institute of Cávado and Ave. 4750-810 Barcelos, Portugal* *DI-CCTC, University of Minho. 4710-057 Braga, Portugal*
OP3.3 **#2; 8**		**Serious Games in Cognitive Training for Alzheimer's Patients** Frédérick Imbeault, Bruno Bouchard, and Abdenour Bouzouane *LIARA laboratory, Université du Québec à Chicoutimi, Chicoutimi, Canada*
OP3.4 **#326**		**Game of gifts purchase:** **Computer-based training of executive functions for the elderly** Álvaro López-Martínez, Sandra Santiago-Ramajo, Alfonso Caracuel, Carlos Valls-Serrano, Miguel J. Hornos, María J. Rodríguez-Fórtiz *Dept. Lenguajes y Sistemas Informáticos, University of Granada, Granada, Spain* *Dept. Personality, Evaluation and Psychological Treatment, Institute of Neurosciences, University of Granada, Granada, Spain*
OP3.5 **#334**		**Simulating a Portuguese Hospital Master Surgery Schedule** Bernardo Almada-Lobo, José Borges, António Carvalho Brito, Andrea Morteo, Fabricio Sperandio, Carlos Gomes *Faculdade de Engenharia da Universidade do Porto, Porto, Portugal*
18:30	**Welcoming Reception**	**Intervention by Joaquim Cunha** (Executive Director, Health Cluster Portugal)

Thursday, 17th November 2011

10:00	**OP4 - Oral Presentation**	**Exercising, Active living and Accessibility**

A Serious Computer Game to Assist Tai Chi Training for the Elderly

OP4.1
#338

Wagner O. de Morais, Nicholas Wickström
School of Information Science, Computer and Electrical Engineering, Halmstad University, Halmstad, Sweden

Combining Web Squared and Serious Games for Crossroad Accessibility

OP4.2
#146

Claudio E. Palazzi, Gustavo Marfia, Marco Roccetti
*Dipartimento di Matematica Pura e Applicata, Università degli Studi di Padova, Padova, Italy
Dipartimento di Scienze dell'Informazione, Università degli Studi di Bologna, Bologna, Italy*

10:40	**Coffee Break**

11:10	**OP5 - Oral Presentation**	**Game Design, Human-Computer Interfaces and Artificial Intelligence**

Alternative human-machine interface system for powered wheelchairs

OP5.1
#34:

R. Berjón, M. Mateos, A. L. Barriuso, I. Muriel, G. Villarrubia
Facultad de informática, Universidad Pontificia de Salamanca, Salamanca, Spain

~~**eRiskGame: a Persistent Browser-Based Game for Supporting Project-Based Learning in the Risk Management Context**~~

OP5.2

~~Túlio Galvão, Francisco Milton Neto, Mara Bonates, Marcos Campos
Department of Exact and Naturals Sciences, Rural Federal University of the Semi-Arid, UFERSA, Mossoró - RN, Brazil~~
NO SHOW

Playing Tetris with Non-Invasive BCI

OP5.3
#355

Gabriel Pires, Mario Torres, Nuno Casaleiro, Urbano Nunes, Miguel Castelo-Branco
*Institute for Systems and Robotics, University of Coimbra, Coimbra, Portugal
Biomedical Institute for Research in Light and Image, University of Coimbra, Coimbra, Portugal*

Planning of a usability test for 3D controllers in Second Life OpenSimulator virtual worlds

OP5.4
#35;

Cátia Dias, Odete Fernandes, António Cunha, Leonel Morgado
Universidade de Trás-os-Montes e Alto Douro, Escola de Ciências e Tecnologia, Vila Real, Portugal

An Approach about Health Games to Social Network Environment

OP5.5
#365

Anabela Pinho, Hugo Paredes, Nelson Zagalo
*Instituto Politécnico de Bragança, Portugal
Universidade de Trás-os-Montes e Alto Douro, Portugal
Universidade do Minho, Portugal*

12:30	**Lunch**
14:30	**Social Event**
20:00	**Banquet**

Friday, 18ᵗʰ November 2011

| 09:00 | **OP6 - Oral Presentation** | **Diagnosis, Rehabilitation and Assistive Technologies I** |

**OP6.1
#369**

Industrial Design meets Mental Healthcare: Designing Therapy-Enhancing Products Involving Game-Elements for Mental Healthcare - Three Case Studies
Valentijn Visch, Marloes Dewit, Linh Dinh, Daphne Vandenbrule, Marijke Melles and Marieke Sonneveld
Technical University Delft: Industrial Design, Netherlands

**OP6.2
#375**

PlayWithEyes: a new way to test children eyes
Alberto De Bortoli, Ombretta Gaggi
Dept. of Pure and Applied Mathematics, University of Padua, Padua, Italy

**OP6.3
#179**

Motivation Based Difficulty Adaptation for Therapeutic Games
Nadia Hocine, Abdelkader Gouaıch, Ines Di Loreto, Michelle Joab
The Montpellier Laboratory of Informatics, Robotics, and Microelectronics –LIRMM, Montpellier 2 University – CNRS, Montpellier, France

| 10:00 | **Coffee Break** | |

| 10:30 | **OP7 - Oral Presentation** | **Diagnosis, Rehabilitation and Assistive Technologies II** |

**OP7.1
#387**

Dual Camera Motion Capture for Serious Games in Stroke Rehabilitation
Lindsay Evett, Andy Burton, Steven Battersby, David Brown, Nasser Sherkat, Gareth Ford, Hao Liu, Penny Standen
Computing and Technology team, Nottingham Trent University, Nottingham, UK
Division of Rehabilitation and Aging, University of Nottingham, Nottingham, UK

**OP7.2
#38;**

Can participating in games based learning improve mathematic skills in students with intellectual disabilities?
David Brown, James Ley, Lindsay Evett, Penny Standen
Computing and Technology team, Nottingham Trent University, Nottingham, UK
Division of Rehabilitation and Aging, University of Nottingham, Nottingham, UK

**OP7.3
#39:**

Mixed Reality Serious Games: The Therapist Perspective
Ines Di Loreto, Abdelkader Gouaıch
The Montpellier Laboratory of Informatics, Robotics, and Microelectronics –LIRMM, Montpellier 2 University – CNRS, Montpellier, France

**OP7.4
#3: :**

Evaluating Social Games for Kids and Teenagers Diagnosed With Cancer
Alberto Fuchslocher, Kathrin Gerling, Maic Masuch and Nicole Krämer
University of Duisburg-Essen, Germany

**OP7.5
#3; 4**

Improving Communication Skills of Children with ASDs through Interaction with Virtual Characters
Bretagne Abirached, J. K. Aggarwal, Tiago Fernandes, Jose Carlos Miranda, Veronica Orvalho, Birgi Tamersoy and Yan Zhang
The University of Texas, Austin, USA
Instituto de Telecomunicações, FCUP, Portugal
Instituto Politécnico Guarda, Portugal

**OP7.6
#3; 8**

Designing Personalized Therapeutic Serious Games for a Pervasive Assistive Environment
Rui Neves Madeira, Nuno Correia, Marco Guerra, Octavian Postolache, Ana Cláudia Dias, Gabriela Postolache
Interactive Multimedia Group, DI, FCT/New University of Lisbon, Lisbon, Portugal
Instituto de Telecomunicações, Instituto Superior Técnico, Lisbon, Portugal
ACES Lisboa-Norte, Centro de Saúde do Lumiar, Lisbon, Portugal
Escola Superior de Saúde, Universidade Atlântica, Lisbon, Portugal

		Wrap-up
12:30	**Closing Session**	**Best Paper Award**
		Announcement of SEGAH 2012