2010 2nd International IEEE Consumer Electronics Society’s Games Innovations Conference

(ICE-GIC 2010)

Hong Kong
21 – 23 December 2010
TABLE OF CONTENTS

A Framework for Camera Pose Tracking Using Stochastic Data Fusion .............................................................. 1
Armghan Moemeni, Eric Tatham

A GCSE Maths Tutoring Game using Neural Networks ......................................................................................... 8
William Lawrence, Jenny Carter, Samad Ahmadi

A Heuristic Pathfinding Approach Based on Pre-computing and Post-adjusting Strategies for Online Game Environment ........................................................................................................ 15
Jia-Jia Tang, Liang Chen, Ling Yan

A Monte-Carlo Approach for Ghost Avoidance in the Ms. Pac-Man Game ........................................................ 23
Bruce K. B. Tong, Chi Wan Sung

A Serious Game to Improve Human Relationships in Patients with Neuro-psychological Disorders ....................... 31
N. Aresti Bartolome, A. Mendez Zorrilla, B. Garcia Zapirain

An Innovative Breathing Game Applied with Textile Sensors ................................................................................. 36
Chang-Ming Yang, Ching-Wen Yang, Shu-Hui Hung, Chih-Hsian Wang, Hsin-Hung Lin, Wei-Chin Huang, Yueh-Ming Huang

Building an Education Ecology on Serious Game Design and Development for the One Laptop Per Child and Sugar Platforms: A Service Learning Course Builds a Base for Peer Mentoring, Cooperative Education Internships and Sponsored Research ........................................................................ 42
Stephen Jacobs

Chasers of the Lost Data: Turning Content Management Systems into Gaming Platforms ........................................... 48
Adrian Horovsky, Timo Aaltomaa, Rod Walsh

Dancing Game by Digital Textile Sensor .................................................................................................................. 52
Chang-Ming Yang, Chun-Mei Chou, Tsu-Lin Yang, Jwu-Sheng Hu, Kuan-Chun Sun, Shu-Hui Hung, Jen-Hsian Cheng, Chih-Hsian Wang, Yueh-Ming Huang

Depth Map Generation and Depth Layer Separation for Information Customization in Computer Gaming ................................................................. 58
Istvan Andorko, Peter Corcoran, Petronel Bigioi

Efficient Composition of Media Object for Multimedia Scene Rendering ........................................................... 62
Yun-Ju Lee, Tae-Beom Lim, Kyung-Won Kim, Jae-Won Moon

Empowering Students with Engineering Literacy and Problem-solving through Interactive Virtual Reality Games ........................................................................................................... 64
Ying Tang, Sachin Shetty, Xiafang Chen

Enabling Sportive Games with a Do-It-Yourself Wearable Computing Platform .................................................. 70
Ki-Woong Park, Byung-Seol Kim, Jong-Woon Yoo, Kyun Ho Park, Kwangyoun Wohin

Estimation of Vertical Angle of the Impacted Ball Using a Planar Sensor ............................................................ 77
Ji Eun Bae, Gun Tae Park, Jin Wook Kim, Hyun Soo Park

Evolving a Mario Agent Using Cuckoo Search and Softmax Heuristics ................................................................. 82
Erek R. Speed

Examining the Motivation of Consumers’ Purchase of Video Games in Taiwan .................................................... 89
Lo Ching Wen, Chia Chin Chin

Experiences from Implementing a Face-to-Face Educational Game for iPhone/iPod Touch ................................... 94
Alf Inge Wang, Bjarne Wu, Sveinung Kval Baken

Experiences from Implementing an Educational MMORPG .................................................................................. 102
Bian Wu, Alf Inge Wang, Yuanxuan Zhang

Exploiting Traditional Gameplay Characteristics to Enhance Digital Board Games ........................................ 110
Fulvio Frapolli, Apostolos Malatras, Beat Hirsbrunner

Game-based Strategy to Teaching Electronic & Electrical Engineering in Virtual Worlds ....................................... 118
M. J. Callaghan, K. McCusker, J. Losada, J. Harkin, S. Wilson, J. Dugas, S. Demots, F. Desbois, A. Fouquet, F. Sauviat

“Hopefully Everything I’m Doing Has to Do with Innovation”: Games industry professionals on innovation in 2009 .................................................................................................................. 126
Annakaisa Kultima, Kati Alha

Introducing Game and Playful Experiences to other Application Domains through Personality and Motivation Models ........................................................................................................... 134
Rod Walsh, Marion Boberg, Juhu Arrasvuori, Hannu Korhonen, Tanja Walsh

MindTactics: A Brain Computer Interface Gaming Platform ............................................................................... 142
Kenneth Oum, Hasan Ayaz, Patricia A. Shewokis, Paul Diefenbach
Multiplayer Gaming for Low-end Mobile Phones: Gaming Between Basic Mobile Phones, Handheld Devices and Computer Platforms

Shiblee Imtiaz Hasan

Playing with Poetry a Portuguese Transmedia Experience and a Serious ARG

Patricia Gouveia

PokerFace: Game Players Themselves Are Truly Memorable

Jong-Woon Yoo, Ki-Woong Park, Sung Kyu Park, Hyunchul Seok, Kyu Ho Park

Psycho-stimulation for Elderly People Using Puzzle Game

Begoña García Zapirain, Amaia Méndez Zorrilla, Sabin Larrañaga

Survey on Attitude Towards Pervasive Games

Alf Inge Wang, Hong Guo, Meng Zhu, Are Sæterbø Akselsen, Kenneth Kristiansen

Taxonomic Contributions to Digital Games Science

Klaus P. Jantke, Swen Gaudl

Testing an Exergame for Effectiveness and Attractiveness

Jeff Sinclair, Philip Hingston, Martin Masek, Ken Nosaka

Transition to Teaching: 3D Classroom Simulation and Management

Paul Diefenbach, Kenneth Oum, Fredricka Reisman

Author Index