

Preface	IX
Scientific Programme	1
Author Listing	117

GAME DESIGN

Interactivity in Computer Games Barbaros Bostan, Gökhan Şahin and Mehmet Can Üney	5
Comparative Analysis on Game Design Pattern Collections Tapani N. Liukkonen, Olli I. Heimo, Tuomas Mäkilä and Jouni Smed	10
Translating a Modern Film and TV Screening Room to an Integrated Game Engine Production Environment Oliver Engels and Robert Grigg	18

INTERACTIVE EDUCATIONAL GAME DESIGN

Serious Game Creation in Teaching Content Merikki Lappi and Esa Lappi	25
XIMPEL in Education – Inspiring Creativity through Storytelling and Gameplay S.V. Bhikharie and A. Eliëns	30
Some Reflections on Bolognese Food: A Digital Perspective, with a lot of Fun Marco Roccetti, Silvia Colombini and Marco Zanichelli	34

VIRTUAL GAMING TRAINING ENVIRONMENTS

Virtual Reality Situational Language Trainer for Second Language Design & Evaluation Timo Korkalainen, Juho Pääkylä, Tapani N. Liukkonen, Lauri Järvenpää, Tuomas Mäkilä, Yrjö Lappalainen and Heli Kamppari	41
Evaluation of a Virtual Training Environment for Aggression De-escalation Tibor Bosse, Charlotte Gerritsen and Jeroen de Man	46

CONTENTS

GAME AI

STARCRAFT II Build Item Selection with Semantic Nets Andreas Stiegler, Keshav Dahal, Johannes Maucher and Daniel Livingstone.....	55
Developing Trainable Bots for a Mobile Game of Tennis Maxim Mozgovoy, Akane Yamada and Iskander Umarov.....	60
A Simple Hybrid Algorithm for Improving Team Sport AI David King and David Edwards.....	63

INTELLIGENT AGENTS

Proposing an Intelligent Agent for the Four-Sided Dominoes Game using The Expectimax Algorithm Endrews Silva, Marly Costa, Nirvana Antonio and Cicero Costa Filho	71
Aggressive versus Loud Virtual Agents - Investigating the influence of sound on the stress response in the use of virtual agents Charlotte Gerritsen and Willeke van Vught	79

PROCEDURAL PROGRAMMING

Procedural generation of collaborative puzzle-platform game levels Benjamin van Arkel, Daniël Karavolos and Anders Bouwer.....	87
How to use Combinatorial Optimization Problems (Traveling Salesman problem) for Procedural Landscape Generation Alan Ehret and Peter Jamieson	94

ONLINE GAMING

A Server-Side Framework for the Execution of Procedurally Generated Quests in an MMORPG Jonathon Doran and Ian Parberry.....	101
Online Skill Level Classification of Real-Time Strategy Game Players Jason M. Blackford and Gary B. Lamont.....	109