FINAL PROGRAM

13 – 15 September 2016

New University of Lisbon
Lisbon, Portugal
Organized and Sponsored by
PROGRAMME AT A GLANCE

September 13
09.00-15.30 Registration
09.30-09.40 Welcome
09.40-10.30 Keynote
10.30-11.00 Coffee Break
11.00-13.00 Session
13.00-14.00 Lunch
14.00-15.00 Session
15.00-15.30 Coffee Break
15.30-17.30 Gamification in Practice
17.30 FREE EVENING

September 14
09.00-15.00 Registration
09.30-10.30 Keynote
10.30-11.00 Coffee Break
11.00-13.00 Session
13.00-14.00 Lunch
14.00-15.00 Session
15.00-15.30 Coffee Break
15.30-17.30 Presentation by Leonel Moura
19.30-22.00 Conference Dinner

September 15
09.30-10.00 Registration
09.30-10.30 Session
10.30-11.00 Coffee Break
11.00-12.00 Session
12.00-12.15 Closing Session
GAME-ON'2016 FINAL PROGRAMME

Overhead and LCD Projector are standard
The underlined authors are usually the presenters.
Conference Site: ID Building - Room Multiusos 02, Faculdade de Ciências Sociais e Humanas, Universidade Nova de Lisboa - FCSH-UNL Av. Berna 26c, 1069-061 Lisbon, Portugal.
For any local information contact Helena Barbas: Tel. +351.21.790.8300, Email: hebarbas@fcsh.unl.pt, http://fcsh.unl.pt/faculdade/docentes/bhmdf
Coffee breaks and lunches are held at the cafeteria of the ID Building FCSH-UNL

Only papers in gray boxes are eligible for the best paper award

Tuesday, September 13, 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00 - 15.30</td>
<td>Registration</td>
</tr>
<tr>
<td>09.30 - 09.40</td>
<td>ID - ROOM MULTIUSOS 02 - WELCOME</td>
</tr>
<tr>
<td>09.40 - 10.30</td>
<td>ID - ROOM MULTIUSOS 02 - SESSION I</td>
</tr>
</tbody>
</table>

Welcome Address
Luis Vicente Baptista, director of CICS.Nova – FCSH Universidade Nova de Lisboa, Lisbon, Portugal

Session Chairperson:
Helena Barbas, CICS.Nova – FCSH - UNL Lisbon, Portugal

GAME_KEY_01
Games with Morality
Luis Moniz Pereira, NOVA LINCS, Universidade Nova de Lisboa and Miguel Calejo, InterProlog Consulting, Lisbon, Portugal
Tuesday, September 13, 2016

10.30 - 11.00 Coffee Break

11.00 - 13.00 ID - ROOM MULTIUSOS 02 - SESSION II
GAME METHODOLOGY

11.00-13.00

Session Chairperson:
Isabel Lousada, CICS.Nova – FCSH - UNL Lisbon, Portugal

GAME_METH_04
Beyond Version Control – Inspirations for New Game Development Pipelines and Future Game Engines
Oliver Engels and Robert Grigg ................................................................. 5

GAME_METH_06
‘Ephemerality’ in Game Development: Opportunities and Challenges
Antonio José Fernández-Leiva and Ariel Eduardo Vázquez-Núñez .... 10

GAME_METH_01
A Study on Classic Games with Sibling Relationship: Investigating Facets of Game Elements and their Influences on Game Players’ Experiences
Chih-Chieh Yang ......................................................................................... 15

GAME_SER_04
Promoting Reciprocity-Based Cooperation by Dual Layer Gamification
Takaya Arita and Nozomi Ogawa .............................................................. 22

13.00 - 14.00 Lunch

14.00 - 15.00 ID - ROOM MULTIUSOS 02 - SESSION III
GAME DEVELOPMENT
Tuesday, September 13, 2016

14.00-15.00    Session Chairperson:  
                 Isabel Lousada, CICS.Nova – FCSH - UNL Lisbon, Portugal

GAME_METH_DES_02
Markov Chain in Electronic Fighting Games
Luiz Filipe Cunha, Maria Aparecida Pereira Junqueira and Alex Fernandes da Veiga Machado........................31

GAME_GRAPH_01
Midpoint Displacement in Multifractal Terrain Generation
Rami Ramstedt and Jouni Smed .........................................................35

15.00 - 15.30   Coffee Break

15.30 - 17.30   ID - ROOM MULTIUSOS 02 - Session IV
GAMIFICATION IN PRACTICE

15.30-17.30    Session Chairperson:  
                 Helena Barbas, CICS.Nova – FCSH - UNL Lisbon, Portugal

WORKS-IN-PROGRESS and other presentations by Portuguese Start-Ups using Gamification

17.30 -    FREE EVENING
Wednesday, September 14, 2016

09.00 - 15.30  Registration

09.30 - 10.30  ID - ROOM MULTIUSOS 02 - SESSION V
   KEYNOTE SPEAKER

09.30-10.30  Session Chairperson:
   Daniel Alves, IHC - FCSH - UNL Lisbon, Portugal

GAME_KEY_02
Through the Looking-Glass: Gaming Pre-Earthquake
Lisbon, Posthuman History and the Crisis of
Humanities
Paulo Simões Rodrigues, CHAIA/Universidade de Évora,
Palácio do Vimioso, Évora, Portugal

10.30 - 11.00  Coffee Break

11.00 - 13.00  ID - ROOM MULTIUSOS 02 - SESSION VI
   GAME AI AND GAME VR

11.00-13.00  Session Chairperson:
   Rui Zink - IELT – FCSH - UNL Lisbon, Portugal

GAME_AI_03
An Investigation of Two Real Time Machine Learning Techniques
that could enhance the Adaptability of Game AI Agents
David King and Cassie Bennett ..........................................................41
Wednesday, September 14, 2016

GAME_AI_02
Production of Emotion-based Behaviors for a Human-like Computer Player
Sila Temsiririrkkul, Huu Phuc Luong and Kokolo Ikeda....................49

GAME_VR_01
Virtual Reality 3rd Person Camera Behavior Modes
Daniel P. O. Wiedemann, Peter Passmore and Magnus Moar.............57

GAME_VR_02
“Stop The Roller Coaster!” - A Study of Cybersickness Occurrence
Letícia Grossi Gomes Ribeiro, Renan Ribeiro Rocha, Matheus de Freitas
Oliveira Baffa and Alex Fernandes da Veiga Machado......................65

13.00 - 14.00 Lunch

14.00 - 15.00 ID - ROOM MULTIUSOS 02 - SESSION VII
SERIOUS GAMING I

14.00-15.00 Session Chairperson:
Cristina Ponte, CICS.Nova – FCSH - UNL Lisbon, Portugal

GAME_METH_08
Games: the Importance of being Earnest
Helena Barbas.................................................................73

GAME_SER_01
Game-Based Learning in Mobile Technology
Agostino Marengo, Alessandro Pagano and Lucia Ladisa...............80

15.00 - 15.30 Coffee Break
Wednesday, September 14, 2016

ID - ROOM MULTIUSOS 02 - SESSION VIII
Meeting with Leonel Moura

15.30 - 17.30

Session Chairperson:
Rui Zink - IELT – FCSH - UNL Lisbon, Portugal

A special session on robotics in gaming with

CONFERENCE DINNER

19.30-22.00

The Conference dinner will be held on Wednesday the 14th of September at the Pastelaria Versailles
Av. da República 15-A
1050-185 Lisboa Portugal
Tel: +351 21 354 6340
Hours: Open today · 7:30AM–11:45PM
### Thursday, September 15, 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.30 - 10.00</td>
<td>Registration</td>
</tr>
</tbody>
</table>
| 09.30 - 10.30 | **ID - ROOM MULTIUSOS 02 – SESSION X**  
SERIOUS GAMING II                                                  |
| 09.30-10.30 | **Session Chairperson:**  
Dália Guerreiro, CIDEHUS, Universidade de Évora, Portugal            |
|             | **GAME_SER_02**  
Food-related Gamification: Literature Review  
Kaisa Könnölä, Tuomas Ranti, Tapani N. Liukkonen  
and Tuomas Mäkilä........................................................................85 |
|             | **GAME_SER_03**  
Designing and Testing an Educational Game about Food for School  
Aged Children  
Johannes Henriksson, Tapani N. Liukkonen, Kaisa Könnölä,  
Sanna Vähämiko and Tuomas Mäkilä ...............................................89 |
| 10.30 - 11.00 | Coffee Break                                                         |
| 11.00 - 12.00 | **ID - ROOM MULTIUSOS 02 – SESSION XI**  
SERIOUS GAMING III                                                   |
| 11.00-12.00 | **Session Chairperson:**  
Miguel Almeida Chaves, CICS.Nova – FCSH - UNL Lisbon, Portugal       |
|             | **GAME_SER_08**  
Suicide and other dangers of 'Game Over'  
Donzília Alagoinha Felipe ................................................................93 |
|             | **GAME_SER_06**  
Coordination and Synchronization Tool to support Caretaking of Senior Citizens in Social Events  
Aryan Firouzian, Rajeeka Ponrasa, Zeeshan Asghar and Petri Pulli.98 |
Thursday, September 15, 2016

12.00 - 12.15  ID - ROOM MULTIUSOS 02 – SESSION XII
               Best Paper Award Session

12.00-10.15   Session Chairperson:
               Helena Barbas, CICS.Nova – FCSH - UNL Lisbon, Portugal
               Philippe Geril, EUROSIS-ETI, Ostend, Belgium

SOCIAL PROGRAMME INFORMATION

Lunches and Coffee breaks

Coffee breaks and lunches will be served by the cafeteria Cardápio Mágico – ID Building

Universidade Nova de Lisboa
Faculdade de Ciencias Sociais e Humanas
ID Building – 1st. floor
Av. Berna 26c,
1069-061 Lisboa, Portugal

Conference Dinner on the 14th of September

The Conference dinner will be held on Wednesday the 14th of September at the
Pastelaria Versailles
Av. da República 15-A 1050-185 Lisboa Portugal
Tel: +351 21 354 6340
Hours: Open today · 7:30AM–11:45PM
SESSION CHAIR INFORMATION

Information for Session Chairs

Session Chairs are chosen on a voluntary basis by proposals by either authors or local committee members or are appointed by the Track Chairs, General Program Chair or General Conference Chair. They are responsible for their assigned session. They make sure their speakers are available, take care of the timing within the session, chair the discussion after each presentation and introduce each speaker based on the CV's given to them by the authors. In case they chair a session featuring extended papers, then they are required to distribute and collect the reviews of that or those papers at the beginning and end of the session. If they have time they should also indicate in their papers the number of session participants.

SEE YOU ALL NEXT YEAR AT GAMEON 2017, September 6-8, 2017, Institute of Technology Carlow, Carlow, Ireland

Proposals for special tracks/tutorials/demos can be sent in by January 30th 2017
CONFERENCE LOCATION

Conference Venue

Room Multiusos 02 – ID Building (4th. Floor)
Universidade Nova de Lisboa
Faculdade de Ciencias Sociais e Humanas - FCSH/NOVA
Av. Berna 26c,
1069-061 Lisboa, Portugal
Tel: +351.21.790.8300
hebarbas@fcsh.unl.pt

Street Entrance into the ID Building - UNL
On the following pages you will find our scheduled events for the last months of 2016 and those already confirmed for 2017 and 2018. As you can see there will be some changes to our calendar. ECEC and FUBUTEC will from now on be partnered with ISC while EUROMEDIA as a conference will be replaced by a new event, building upon the technology pioneered by the event, details of which will be revealed in the coming weeks.
EUROSIS Forthcoming Conferences

ESM'2016, October 26-28, 2016, SIANI, University of Las Palmas, Las Palmas, Spain.

IAH'2016 (Industrialized Affordable Housing), November 16-18, 2016, TheHotel, Brussels, Belgium

MESM'2017-GAMEON-ARABIA'2017, 2017, University of Sharjah, Sharjah, AUE

ISC'2017, ECEC'2017 and FUBUTEC'2017 June 2017, Polish Academy of Sciences, Warsaw, Poland
EUROSIS Forthcoming Conferences

GAMEON'2017, September 6-8, 2017, Institute of Technology Carlow, Carlow, Ireland

ESM'2017, October 2017, IST Campus, Lisbon, Portugal.

FOODSIM'2018, April, 2018, Catholic University Louvain, Ghent, Belgium

ISC'2018, ECEC‘2018, FUBUTEC‘2018, June 2018, University of Azores, Ponta Delgada, Portugal
NOTES
EUROSIS was borne out of discussions with the European Community to set up a new kind of Society, which would be project driven instead of driven by pure membership and conferences.

The aim of the new Society is to set up topic related Technical Committees which link directly to European Projects in the field of computer simulation and related areas and to act as a knowledge pool for future European Networks of Excellence, like MOSAIC.

If you would like to receive more information about EUROSIS, please contact

Philippe Geril  
EUROSIS-ETI  
European Simulation Office  
Greenbridge Science Park  
Ghent University – Ostend Campus  
Wetenschapspark 1  
Plassendale 1  
B- 8400 Ostend  
Belgium  
☎ Tel: +32.59.255.330  
✉ Fax: +32.59.255.339  
Theil: Philippe.Geril@eurosis.org

Please send me info on EUROSIS:  
Name: ..........................................................................................................................  
Address: .....................................................................................................................  
........................................................................................................................................  
........................................................................................................................................  
........................................................................................................................................  
........................................................................................................................................  
Telephone: ..................................................................................................................  
Fax: .................................................................................................................................  
Email: ..............................................................................................................................
GAME-ON’2016 Registration Form

Please legibly print or type and fill out completely. (Check appropriate boxes where necessary)

<table>
<thead>
<tr>
<th>FIRST NAME</th>
<th>LAST NAME</th>
<th>M.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPANY OR AFFILIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing address (tick one): [ ] HOME [ ] BUSINESS</td>
</tr>
<tr>
<td>STREET</td>
</tr>
<tr>
<td>CITY</td>
</tr>
<tr>
<td>ZIPCODE</td>
</tr>
<tr>
<td>COUNTRY</td>
</tr>
<tr>
<td>TELEPHONE</td>
</tr>
<tr>
<td>FAX</td>
</tr>
<tr>
<td>E-MAIL</td>
</tr>
<tr>
<td>DATE</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

1. [ ] EUROSIS member € 560 Member Number: _______________________________ €________

2. [ ] Members of Sponsor or Affiliate Society € 560 €________

3. [ ] Non-Member Participant € 605 €________

4. [ ] Students, who are not authors but who wish to attend the conference, or ONE DAY PARTICIPANTS pay: € 445 €________

(Above registration fees include, one copy of the PROCEEDINGS, all midday meals, cocktail, refreshments, coffees and social program.) One Day Participants and Non-Author Students cannot participate in the conference dinner.

5. [ ] Conference Dinner Ticket for Companion € 60 [ ] Lunch Ticket for Companion € 30/day €________

6. [ ] Extra Conference Proceedings € 50 Cash and Carry €________

VAT Number if applicable: _______________________________

TOTAL AMOUNT DUE €________

TOTAL AMOUNT REMITTED €________

Pay by CREDIT CARD and fill in the information below:
Charge my (tick one): [ ]Visa [ ] Euro/Mastercard [ ] American Express
CARD NO: __ __ __ __ : __ __ __ __ : __ __ __ __ : __ __ __ __ EXP.DATE: ___ / ___

Authorizing Signature:

Print Signature in CAPITALS