## Contents

**General Information** .............................................................. 4  
Badges ................................................................................ 4  
Best Paper Award ................................................................. 6  
Conference Location ............................................................ 4  
Conference Proceedings ...................................................... 5  
How to get there ................................................................ 4  
Internet Connection .......................................................... 5  
Meeting Rooms .................................................................. 5  
Need Help? ......................................................................... 5  
Paper Legend ...................................................................... 6  
Registration ....................................................................... 4  
Social Event and Lunches .................................................. 5  
Tickets ................................................................................ 4  

**Quick Program Overview** .................................................. 7  
Welcome Address .................................................................. 10  

**Scientific Program** .............................................................. 10  

**Wednesday, August 26** .................................................. 10  
**Thursday, August 27** ..................................................... 14  
**Friday, August 28** ........................................................... 18  

Conference Locations .......................................................... 19  
EUROSIS Info ..................................................................... 20
General Information

1.1 Conference Location

The Conference itself is held at
Georgia Tech Global Learning Center
84 Fifth St. NW
Atlanta, GA 30308

The registration desk will be placed in the hallway in front of the meeting rooms. Registration will start on Wednesday at 8.30 a.m. till 5.00 p.m. On Thursday it will be from 8.30 a.m. - 12.00 p.m.

ALL MAPS ARE AT THE BACK OF THIS PROGRAMME

1.2 How to get there

The way to the conference rooms will be signposted.

1.3 Badges

Each registrant will receive a name badge upon registration. The badge must be worn in order to be admitted to the technical sessions, lunches and social event. Participants to the two events will be designated by differently coloured dots.

1.4 Tickets

Extra tickets for the social event and lunches are available from the registration desk.

Price: (or equivalent in another currency) for extra tickets. All participants will be issued with tickets for lunch and the conference dinner

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>conference dinner:</td>
<td>$ 45</td>
</tr>
<tr>
<td>lunch</td>
<td>$ 20</td>
</tr>
</tbody>
</table>

1.5 Registration

The GAMEON-NA’2009-NASTEC’2009 Registration Desk will be open for information and registration:

Wednesday, August 26 ...... 8.30 a.m. to 5.00 p.m. in the hallway
Thursday, August 27 ......... 8.30 a.m. to 12.00 p.m. in the hallway
1.6 Conference Proceedings

Each fully paid registrant will be provided with a copy of the Conference Proceedings relevant to his or her track (printed format).
(Extra copies are available on a cash and carry basis at special rates during GAMEON-NA’2009-NASTEC’2009)

Price: (or equivalent in another currency) for an extra copy

<table>
<thead>
<tr>
<th>Proceedings</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAMEON-NA’2009 Proceedings</td>
<td>$35</td>
</tr>
<tr>
<td>NASTEC’2009 Proceedings</td>
<td>$35</td>
</tr>
</tbody>
</table>

Other Proceedings can be ordered using the forms available at the conference.

1.7 Meeting Rooms

The meeting rooms will be designated and signposted as ROOM A (GAMEON-NA) and –ROOM B (NASTEC) at the conference.

1.8 Internet Connections

Guest accounts to use the WIFI network have been requested for the duration of the conference. More information will be available at the conference.

1.9 Need Help?

Please see the conference desk for your questions

1.10 Social Events and Lunches

All registrants are invited to

The meals and coffee breaks will be held on Wednesday August 26th and Thursday August 27th at Georgia Tech Global Learning Center.

The Conference Dinner

All participants are invited to the conference dinner, which will be held on Thursday the 27th of August from 8.00 p.m. onwards. As we need to give an exact number of participants we would appreciate your confirmation at the desk before Wednesday evening. (for those who have as yet not done so). More information about the dinner site will be available at the conference.
General Information

1.12 Best Paper Award

During the conference the papers, which were accepted as extended papers will be judged by the committee in order to choose the best paper of the GAMEON-NA'2009 and NASTEC'2009 conference.

1.13 Paper Legend:

Each paper is designated before each paper by its number. This number has to be entered on the form for the best paper award

<table>
<thead>
<tr>
<th>Each Room has an LCD projector and an overhead projector</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL SESSION CHAIRPERSONS IN THIS PROGRAM ARE PROVISIONAL AND MAY BE SUBJECT TO CHANGE AT THE EVENT</td>
</tr>
<tr>
<td>THE NUMBERS NEXT TO THE PRESENTATIONS DENOTE THE PAGE-NUMBERS IN THE PROCEEDINGS. IF NO NUMBERS ARE MENTIONED THEN THIS PAPER IS NOT PUBLISHED IN THE PROCEEDINGS</td>
</tr>
<tr>
<td>THE AUTHORS WHO ARE UNDERLINED ARE NORMALLY THE PRESENTERS</td>
</tr>
<tr>
<td>PAPERS IN GREY BOXES ARE THE EXTENDED PAPERS ELIGIBLE FOR THE BEST PAPER AWARD</td>
</tr>
<tr>
<td>CHECK OUT THE OTHER EUROSIS EVENTS ON OUR WEBSITE: <a href="http://www.eurosis.org">http://www.eurosis.org</a></td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>08.30-17.00</td>
</tr>
<tr>
<td>09.00-10.00</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>10.00-10.30</td>
</tr>
<tr>
<td>10.30-12.30</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>12.30-14.00</td>
</tr>
<tr>
<td>14.00-15.00</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>15.00-15.30</td>
</tr>
<tr>
<td>15.30-17.00</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>08.30-12.00</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>09.00-10.00</td>
</tr>
<tr>
<td>10.00-10.30</td>
</tr>
<tr>
<td>10.30-12.30</td>
</tr>
<tr>
<td>12.30-14.00</td>
</tr>
<tr>
<td>14.00-15.00</td>
</tr>
<tr>
<td>15.00-15.15</td>
</tr>
<tr>
<td>15.15-15.45</td>
</tr>
<tr>
<td>15.45-17.45</td>
</tr>
<tr>
<td>20.00-22.30</td>
</tr>
</tbody>
</table>
**FRIDAY 28th AUGUST 2009**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.15-09.30</td>
<td>MEETING AT GEORGIA TECH GLOBAL LEARNING CENTER</td>
</tr>
<tr>
<td>10.00-12.00</td>
<td>VISIT TO HI-REZ STUDIOS</td>
</tr>
</tbody>
</table>
Wednesday, 26th August 2009

HALLWAY
Registration
08.30 - 17.00

09.00 – 09.15

ROOM A- 09.00-09.15
Opening GAMEON-NA’2009/NASTEC’2009 and Welcome Address

Joseph Saur and Mokthar Beldjehem
Georgia Institute of Technology and St. Annes University
GAMEON-NA’2009 and NASTEC’2009 Conference Chairs

09.15 - 10.00

ROOM A- 09.15-10.00
INVITED SPEAKER
Chair: Margaret Loper, Georgia Institute of Technology, Atlanta, USA

INV I
Adaptive Digital Media: Improvisation and Motivation
Brian Magerko, Assistant Professor, School of Literature, Communication and Culture, Georgia Tech

10.00 - 10.30
COFFEE BREAK
Wednesday, 26th August 2009

10.30 – 12.30

ROOM A - 10.30-12.30
MODELLING AND GAME DESIGN
Chair: Joseph Saur, Georgia Institute of Technology, Atlanta, USA

GAMEON_NA_05_AI_DESIGN
Creation of Virtual Worlds through Knowledge-Assisted Declarative Modeling
Jaime Zaragoza, Véronique Gaildrat and Félix Ramos ........................................... 20

GAMEON_NA_06_AI_DESIGN
Towards automated Feature Selection in Real-Time Strategy Games
Kurt Weissgerber, Brett Borghetti, Gary Lamont and Michael Mendenhall .............. 25

GAMEON_NA_08_DESIGN
Machinations: Elemental Feedback Structure for Game Design
Joris Dormans ........................................................................................................... 33

GAMEON_NA_01_AI_SIM
A Proposition of Particle Systems-Based Technique for automated Terrain Surface Modeling
Korneliusz Warszawski and Slawomir Nikiel ......................................................... 17

ROOM B - 10.30-12.00
SOFT COMPUTING METHODOLOGY
Chair: Mokhtar Beldjehem, École Polytechnique de Montreal, Canada

NASTEC_SOFT_02
A Unified Granular Fuzzy-Neuro Framework for Predicting and Understanding Software Quality
Mokhtar Beldjehem ........................................................................................................ 5

NASTEC_METH_01
Application of Kriging to Predict Wireless Network Connectivity
Soroor Al Khafaji, Heping Liu and Alice E. Smith ..................................................... 16
Wednesday, 26^{th} August 2009

NASTEC_METH_03
Application of Particle Swarm Optimization Techniques to Support Vector Classifier Parameterization
James Blondin and Ashraf Saad

12.30 - 14.00
LUNCH BREAK

14.00 – 15.00

ROOM A- 14.00-15.00
INVITED SPEAKER
Chair: Margaret Loper, Georgia Institute of Technology, Atlanta, USA

INV II
Handheld AR Games
Blair McIntyre, Associate Professor, School of Interactive Computing, Georgia Tech

15.00 - 15.30
COFFEE BREAK

15.30 – 17.00

ROOM A- 15.30-17.00
SERIOUS GAMING
Chair: Joseph Saur, Georgia Institute of Technology, Atlanta, USA

GAMEON_NA_09_AI_DESIGN
LIFESIM: Software for Health Science
Charles C Earl, Daniel Fu, Isobel Contento, Pam Koch, Ana Islas, Erin Hoffman and Angela Calabrese Barton ................................................................. 59
Wednesday, 26th August 2009

GAMEON_NA_04_SER
Real-Time Warfare Simulation goes Web 2.0
Gustavo Henrique Soares de Oliveira Lyrio and
Roberto de Beauclair Seixas ................................................................. 64

GAMEON_NA_14_ONLINE
Increasing P2P Gameplay Performance Utilizing I3P
Jeremy Kackley, Jean Gourd and Matthew Gambrell ............................... 68

ROOM B - 15.30-17.00
ENGINEERING SIMULATION
Chair: Saad Ashraf, Armstrong Atlantic State University, Savannah, GA, USA

NASTEC_ENV_01
Model of the Condensate Water and the Air Cooled Condenser of a combined Cycle Power Plant
Yadira Mendoza-Alegria, Edgardo J. Roldán-Villasana and
Rafael Cruz-Cruz .................................................................................. 50

NASTEC_ENV_02
Models of the Turbine Gland and Auxiliary Steam Systems for a Full Scope Simulator of a Combined Cycle Power Plant
Edgardo J. Roldán-Villasana, Ma. de Jesús Cardoso G., Adriana Verduzco B.
Jorge Zorrilla A. and Rafael Cruz-Cruz ................................................. 58

NASTEC_ENV_04
An Analysis of a Fossil Unit for Pressure Excursions using 1D Thermal Hydraulics and 3D CFD Methods
Henry Sierk, D. Scott Lucas, Phillip Wang and Jessica Sierk ........................ 65

FREE EVENING
Thursday, 27th August 2009

HALLWAY
Registration
08.30 - 12.00

09.00 – 10.00

ROOM A- 09.00-10.00
INVITED SPEECH
Chair: Margaret Loper, Georgia Institute of Technology, Atlanta, USA

INV-03
Research with a player-run virtual university in There.com
Celia Pearce, Assistant Professor, School of Literature, Communication and Culture, Georgia Tech

10.00 - 10.30
COFFEE BREAK

10.30 - 12.30

ROOM A 10.30-12.30
BOARD GAMES AND GAME-AI
Chair: Joseph Saur, Georgia Institute of Technology, Atlanta, USA

GAMEON NA_02_AI_BOARD
On feature discovery process in board games
Rafal Lopatka and Vasik Rajlich........................................................................................................43

GAMEON NA_03_AI_BOARD
Fractal Territory Game
Siao-Fan Siao, Luo-Wei Lee and Wen-Kai Tai.................................................................51
Thursday, 27th August 2009

GAMEON NA 07 AI
Virtual World Creation and Visualization by Knowledge Based Modeling
Jaime Zaragoza, Alma Verónica Martínez, Félix Ramos, Mario Siller and Véronique Gaildrat ................................................................. 5

GAMEON NA 11 AI
BOT Building Strategies related to Educational Methodology
Clinton Rogers, Daniel Avila and Iren Valova ......................................................... 10

ROOM B - 10.30-12.00
HEALTH CARE APPLICATIONS
Chair: Mokhtar Beldjehem, École Polytechnique de Montreal, Canada

NASTEC HEALTH 01
Visual Modeling for Making Healthcare Safer
Ranjit Singh, Ashok Singh, Sonjoy Singh and Gurdev Singh ................................. 23

NASTEC HEALTH 02
Web-Based Systems Approach to Improvement of Patient Safety
Ranjit Singh, Ashok Singh, Chimay Anumba and Gurdev Singh ......................... 30

NASTEC IND 01
System Testing Using Use Cases for an Emergency Room Simulation Model
Guodong Shao.......................................................................................................... 35

12.30 - 14.00
LUNCH BREAK
Thursday, 27th August 2009

14.00 - 15.00

ROOM A - 14.00-15.00
INVITED SPEECH
Chair: Margaret Loper, Georgia Institute of Technology, Atlanta, USA

INV IV
The Role of AI, Storytelling, and Creativity in Entertainment
Mark Riedl, Assistant Professor, School of Interactive Computing, Georgia Tech

ROOM B - 14.00-15.00
TEXTILE SIMULATION
Chair: Saad Ashraf, Armstrong Atlantic State University, Savannah, GA, USA

NASTEC_TEX_02
Simulation of Longitudinal Geometric Yarn Structure
Ionut Neagu, Pascal Bruniaux, Dorin Avram and Vasile Airinei.............................

NASTEC_TEX_01
Use of simulation Technology in Textile by using MEMS Technology for Analysis of Weave by Finite Element analysis in ANSYS Software
M. Ronakkumar, M. Leena, R. Ekta and N. Ravi Prakash

15.00 – 15.15

ROOM A - 15.00-15.15
CLOSING SESSION AND BEST PAPER AWARD
Chair: Joseph Saur, Georgia Institute of Technology, Atlanta, USA

15.15 - 15.45
COFFEE BREAK
Thursday, 27th August 2009

15.45 – 18.00

15.45-18.00
Visit to Games @ GT Labs

20.00 – 22.30
GAMEON-NA-NASTEC 2009 Conference Dinner

More information will be available at the conference
Friday, 28th August 2009

HALLWAY

Meeting for the visit to Hi-Rez Solutions (to be confirmed)
09.30 - 09.45

10.00 – 12.00

10.00-12.00
VISIT TO HI-REZ Solutions

SEE YOU ALL NEXT YEAR
AT
GAMEON-NA’2010-NASTEC’2010
August 25-27, 2010
Digipen Institute of Technology
Redmond, USA
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 EUROSIS is to set up topic related Technical Committees which will 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
Greenbridge NV
Wetenschapspark 1
Plassendale 1
B-8400 Ostend Belgium
Tel: +32.59.255330
Fax: +32.59.255339
Email: Philippe.Geril@eurosis.org

[] Please send me info on EUROSIS:
Name: .............................................................................................................
Address: ......................................................................................................
..................................................................................................................
..................................................................................................................
Telephone .....................................................................................................
Fax: .............................................................................................................
Email: .........................................................................................................

[] I wish to organize a EUROSIS event, please contact me