

CEEC 2017

Wednesday 27th September 2017

08:30 - 09:00 Registration
Networks centre foyer

09:00 - 11:00 **GVGAI as a Tool for Game Design**
Dr Diego Perez-Liebana
Lab 4

Hadoop Fundamentals for Researchers
Dr Martin Fleury
Lab 6

11:00 - 11:20 Coffee Break
Networks centre foyer

11:20 - 13:00 **GVGAI as a Tool for Game Design**
Dr Diego Perez-Liebana
Lab 4

Hadoop Fundamentals for Researchers
Dr Martin Fleury
Lab 6

13:00 - 14:00 Lunch Break
Networks centre foyer

14:00 - 15:40 **Brain Computer Interfaces**
Prof Riccardo Poli
Lab 1

15:40 - 16:00 Coffee Break
Networks centre foyer

16:00 - 18:00 **Brain Computer Interfaces**
Prof Riccardo Poli
Lab 1

Thursday 28th September 2017

08:30 - 09:30 Registration, Teaching Center Atrium

09:30 - 09:45 Opening Remarks, TC2.8 / TC2.9

09:45 - 10:00 Coffee Break

10:00 - 11:00 **Achievements and challenges towards the development of thought controlled prostheses**

Keynote Address — Prof Cipriani Christian, TC2.8 / TC2.9

Special Session: Computational Intelligence and Games (I) — TC2.10

Session chair: Joseph Walton-Rivers

Evolving a Designer-Balanced Neural Network for PacMan
Mihail Morosan; Riccardo Poli

11:00 - 12:00

Procedural Content Generation of Level Layouts for Hotline Miami
Joseph Alexander Brown; Bulat Lutfullin; Pavel Oreshin

Automatic Game Tuning for Strategic Diversity
Raluca Gaina; Rokas Volkovas; Carlos Gonzalez Diaz; Rory Davidson

Image Processing — TC2.12

Session chair: Kostas Dizas

A Self-Indexed Register File for Efficient Arithmetical Computing Hardware
Lei Yang; Shaolin Xie; Zijun Liu; Xueliang Du; Donglin Wang

Shallow Convolutional Neural Network for Eyeglasses Detection in Facial Images
Arwa Mohammed Basbrain; Inas Al-Taie; Nassr Azeez; John Q Gan; Adrian F. Clark

Towards Ethnicity Detection Using Learning Based Classifiers
Ahmad Saeed Mohammad Mohammad; Jabir Alshehabi Al-Ani

12:00 - 13:00 Lunch Break

13:00 - 14:00 **The Magic of Monte Carlo Tree Search**

Keynote Address — Dr Mark Winands, TC2.8 / TC2.9

Best Paper Session — TC2.8 / TC2.9

14:00 - 15:00

Session chair: Laith Al-Jobouri

Supporting Massive M2M Traffic in the Internet of Things Using Millimetre Wave 5G Network
Naser Al-Falahy; Omar Younis Alani

session continues overleaf...

Battery Modeling and Simulation Using a Programmable Testing Equipment
Elena Vergori; Francesco Mocera; Aurelio Somà

Primal-Improv: Towards Co-Evolutionary Musical Improvisation
Marco Scirea; Julian Togelius; Peter Eklund; Sebastian Risi

15:00 - 15:15 Coffee Break

15:15 - 16:15 **Automated Market Making using Reinforcement Learning**
Keynote Address — Dr Rahul Savani, TC2.8 / TC2.9

16:15 - 17:15	Special Session: Computational Intelligence and Games (II) — TC2.10	Algorithms — TC2.12
	Session chair: <i>Joseph Walton-Rivers</i>	Session chair: <i>Jabir Alshehabi Al-Ani</i>
	Diversity Maintenance Using a Population of Repelling Random-Mutation Hill Climbers <i>Rokas Volkovas; Michael Fairbank; Diego Perez Liebana</i>	Toward Cost Effective and Optimal Selection of IT Disaster Recovery Cloud Solution <i>Ahmad Al-Sharidah; Hadeel Al-Essa</i>
	Opponent Models Comparison for 2 Players in GVGAI Competitions <i>José González Castro; Diego Perez Liebana</i>	Constructing a Bellwether Theory Regime Change Detection Using Directional Change <i>Jun Chen</i>

	HTN Fighter: Planning in a Highly-Dynamic Game <i>Xenija Neufeld; Sanaz Mostaghim; Diego Perez Liebana</i>	Using Artificial Neural Network in Intrusion Detection Systems to Computer Networks <i>"Leonardo Pereira Dias; Raul C. Almeida</i>
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19:30 **Conference Banquet**
Mirra, 98 High Street, Colchester, CO1 1TH

Friday 29th September 2017

09:00 - 09:45 Registration, Teaching Center Atrium

	Special Session: Computational Finance and Big Data — TC2.10 <i>Session chair: Jabir Alshehabi Al-Ani</i> Speaking of the Weather: Detection of Meteorological Influences on Sentiment Within Social Media <i>Steven Zimmerman; Udo Kruschwitz</i>	Special Session: Computer vision and Image Analysis (I) — TC2.12 <i>Session chair: Grigorios Kalliatakis</i> A Fast Background Update Mechanism for Vehicle Detection in Urban Roads <i>Fei Liu; Zeng Zhiyuan; Zhongyi Li</i>	General Track — TC2.9 <i>Session chair: John Woods</i> Efficient and Low-Complexity Joint Beamforming Algorithm for Industrial Environments: Measurement-Based Evaluation <i>Mohamed Abouzeid; Jesús Gutiérrez; Eckhard Grass; Rolf Kraemer</i>
09:45 - 10:45	Convolutional Neural Networks Applied to High-Frequency Market Microstructure Forecasting <i>Jonathan Doering; Michael Fairbank; Sheri Markose</i> Prediction of the 2017 French Election Based on Twitter Data Analysis <i>Lei Wang; John Q Gan</i>	3D Line Analysis of Fluorescence Microscopic Data Towards 3D Morphology of Cytoskeletal Filaments <i>Kraisorn Chaisaowong; Fabian Alexander Herb</i> Objective Video Streaming QoE Measurement Based on Prediction Model <i>Osama Shalal; Rana Ghani Al-Tuma</i>	Automated Test Case Generation from High-Level Logic Requirements Using Model Transformation Techniques <i>Oyindamola Olajubu; Suraj Ajit; Scott Turner</i> A Test Model for Domain-Specific Language Development <i>Ludvig Kihlman</i>

10:45 - 11:00 Coffee Break

11:00 - 12:00 **The Business of Software: Software Asset Management (SAM) and the Software Supply Chain**

Keynote Address — Steve Cropper, TC2.8 / TC2.9

12:00 - 13:00	Networking — TC2.10 <i>Session chair: Miguel Caplloch Juan</i> A MILP-Based Algorithm for Energy Saving in Spectrum-Sliced Elastic Optical Networks <i>Karcus Assis; Igor Queiroz</i>	Special Session: Computer vision and Image Analysis (II) — TC2.12 <i>Session chair: Grigorios Kalliatakis</i> A New Technique for Designing 8 X 8 Substitution Box for Image Encryption Applications <i>Fadia Ali Khan; Jameel Ahmed; Jawad Ahmad; Muazzam A Khan; Jan Sher Khan; Seongoun Hwang</i>	Wireless Networking — TC2.9 <i>Session chair: Laith Al-Jobouri</i> A Pareto Based Approach with Elitist Learning Strategy for MPLS/GMPS Networks <i>Mohsin Masood; Mohamed Mostafa Fouad; Ivan Glesk</i>
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	<p>Reduction of Bandwidth Requirement in DRoF Systems Using Optical Duobinary Modulation <i>Abdul Nasser Abbood; Hamed Saffa Al-Raweshidy</i></p> <p>Modelling the Power Cost and Trade-Off of Live Migration the Virtual Machines in Cloud-Radio Access Networks <i>Fouad Yaseen; Raad Alhumaima; Wesam Al-Zubaedi; Hamed Saffa Al-Raweshidy</i></p>	<p>Quaternion Wavelet Transforms of Colour Vector Images <i>Peter Fletcher</i></p>	<p>Generalized Proportional Fair (GPF) Scheduler for LTE-A <i>Basel Barakat</i></p> <p>Channel Quality Aware Active Queue Management in Cellular Networks <i>Yuhang Dai; Vindya Wijeratne; Yue Chen; John Schormans</i></p>
13:00 - 13:50	Lunch Break		
13:50 - 14:50	<p>Energy Packet Networks: from Data Transmission to Smart Energy Systems</p> <p>Keynote Address — Prof Erol Gelenbe, TC2.8 / TC2.9</p>		
14:50 - 15:50	<p>Machine Learning and Artificial Intelligence- TC2.10</p> <p><u>Session chair: <i>Piers Williams</i></u></p> <p>Application of On-line Machine Learning in Optimization Algorithms: A Case Study for Local Search <i>Cong Hao; Takeshi Yoshimura</i></p> <p>New Histogram Computation Adapted for FPGA Implementation of HOG Algorithm for Car Detection Applications <i>Mariana - Eugenia Ilas</i></p> <p>Discretization of Linear Parameter Varying Systems in the LFT Representation with Parameter Dependent Sampling Rates <i>Jorge Andres Puerto Acosta; Celso P. Bottura</i></p>	<p>Intelligent Agents — TC2.12</p> <p><u>Session chair: <i>Kostas Dizas</i></u></p> <p>Supporting Mixed-mode Role-Play Activities in a Virtual Environment <i>Enas Jambi; Michael Gardner; Vic Callaghan</i></p> <p>A Comparison of Eligibility Trace and Momentum on SARSA in Continuous State- And Action-Space <i>Barry D Nichols</i></p> <p>Integrating NetLogo and Jason: a Disaster-Rescue Simulation <i>Wulfrano Arturo Luna Ramirez; Maria Fasli</i></p>	
16:00 - 17:00	<p>Afternoon Tea, Closing Remarks & Best Paper Awards</p> <p>Wivenhoe House</p>		