

# EANN 2009 Programme

Day 1 – 27<sup>th</sup> August 2009

Start Time	End Time	Description	Sessions
8:45	9:00	Opening	
9:00	9:45	Keynote	<p><b>Professor Lazaros Iliadis, University of Thrace, Greece</b></p> <p>Title: Fuzzy Logic risk modelling - Intelligent Agents employing hybrid techniques: Application in Environmental problems</p> <p><b>Room WBG.02</b></p>
10:00	11:00	2 parallel sessions 15 minutes presentations	<p><b>Session 1</b> Clustering and Self-Organisation <b>Room WBG.02</b> <b>Session Chair: Sin Wee Lee</b></p> <p><b>Session 2</b> Medical Informatics and Cognitive Systems <b>Room EBG.06</b> <b>Session Chair: Richard Dybowski</b></p>
11:00	11:20	Coffee break	
11:20	13:20	25 minutes presentations	<p><b>Session 3</b> Clustering and Self-Organisation <b>Room WBG.02</b></p>

			<b>Session Chair: Dominic Palmer-Brown</b>
13:20	14:20	Lunch	
14:20	16:00	2 parallel sessions 15 minutes presentations	<p><b>Session 4</b> Classification and Prediction <b>Room WBG.02</b> <b>Session Chair: Chrisina Draganova</b></p> <p><b>Session 5</b> Environmental Applications <b>Room EBG.06</b> <b>Session Chair: Lazaros Iliadis</b></p>
16:00	16:15	Coffee break	
16:15	17:00	Keynote	<p><b>Professor Chris Charalambous, University of Cyprus</b></p> <p><b>Title:</b> Applications of Neural Networks and Support Vector Machines to Pricing European Options</p> <p><b>Room WBG.02</b></p>
17:15	19:15	25 minutes presentations	<p><b>Session 6</b> Modelling Techniques and Applications <b>Room WBG.02</b> <b>Session Chair: Elias Pimenidis</b></p>
17:15	19:15	Workshop	<p><b>Richard Dybowski - Bayesian Networks</b> <b>Room EBG.06</b></p>

## Day 2 - 28<sup>th</sup> August 2009

Start Time	End Time	Description	Sessions
8:55	9:45	Keynote	<p style="text-align: center;"><b>Professor Nikola Kasabov, President of the International Neural Network Society, Auckland University of Technology, New Zealand</b></p> <p style="text-align: center;">Title: Novel methods of spiking neural networks and their applications</p> <p style="text-align: center;"><b>Room WBG.02</b></p>
10:00	11:20	2 parallel sessions 15 minutes presentations	<p style="text-align: center;"><b>Session 7</b> Modelling Techniques and Applications <b>Room WBG.02</b> <b>Session Chair: Haris Mouratidis</b></p> <p style="text-align: center;"><b>Session 8</b> Algorithms and Control Systems <b>Room EBG.06</b> <b>Session Chair: Sin Wee Lee</b></p>
11:20	11:40	Coffee break	
11:40	13:40	25 minutes presentations	<p style="text-align: center;"><b>Session 9</b> Fuzzy Systems and Finance <b>Room WBG.02</b></p>

			<b>Session Chair: Nikola Kasabov</b>
13:40	14:40	Lunch + Coffee	
14:40	16:10	25 minutes presentations	<p align="center"><b>Session 10</b>  Medical Informatics and Cognitive Systems  <b>Room WBG.02</b>  <b>Session Chair: Richard Dybowski</b></p>
17:00	21:00	Boat trip	

**Day 3 - 29<sup>th</sup> August 2009**

<b>Start Time</b>	<b>End Time</b>	<b>Description</b>	<b>Sessions</b>
8:55	9:45	Keynote	<p align="center"><b>Professor Li Zhaoping, University College London</b></p> <p><b>Title:</b> A biologically inspired recurrent neural network model for computing image saliency and pre-attentive image segmentation</p> <p align="center"><b>Room WBG.02</b></p>
10:00	11:30	25 minutes presentations	<p align="center"><b>Session 11</b>  Communication Systems and Classification  <b>Room WBG.02</b>  <b>Session Chair: Haris Mouratidis</b></p>

11:30	11:45	Coffee break	
11:45	13:45	25 minutes presentations	<p style="text-align: center;"><b>Session 12</b> Algorithms <b>Room WBG.02</b> <b>Session Chair: Elias Pimenidis</b></p>
13:45	14:45	Lunch	
14:45	14:55	Closing	

### Detailed Programme

No	Paper	Presenter	Session	Time slot
1	<b>Applying Snap-Drift Neural Network to Trajectory Data to Identify Road Types: Assessing the Effect of Trajectory Variability</b> <i>Frank Ekpenyong, Dominic Palmer-Brown</i>	<i>Frank Ekpenyong</i>	Session 3 Clustering and Self-Organisation	27.08, WBG.02  11:20 – 11:50
2	<b>New Aspects of the Elastic Net Algorithm for Cluster Analysis.</b> <i>Marcos Levano, Hans Nowak</i>	<i>Hans Nowak</i>	Session 3 Clustering and Self-Organisation	27.08, WBG.02  11:50 – 12:20
3	<b>Relating Halftone Dot Quality to Paper Surface Topography</b> <i>Pekka Kumpulainen, Marja Mettänen, Mikko Lauri, Heimo Ihalainen</i>	<i>Pekka Kumpulainen</i>	Session 3 Clustering and Self-Organisation	27.08, WBG.02  12:20 – 12:50
4	<b>Tracking of the Plasma States in a Nuclear Fusion Device using SOMs</b> <i>Massimo Camplani, Barbara Cannas, Alessandra Fanni, Gabriella Pautasso, Giuliana Sias, Piergiorgio Sonato, Asdex Upgrade Team</i>	<i>Giuliana Sias</i>	Session 3 Clustering and Self-Organisation	27.08, WBG.02  12:50 – 13:20
5	<b>Pareto-based multi-output metamodeling with</b>	<i>Dirk</i>	Session 6	27.08,

	<b>active learning</b> <i>Dirk Gorissen, Ivo Couckuyt, Eric Laermans, Tom Dhaene</i>	<i>Gorissen</i>	Modelling Techniques and Applications	WBG.02 17:15 – 17:45
<b>6</b>	<b>Using of Artificial Neural Networks (ANN) for Aircraft Motion Parameters Identification</b> <i>Anatolij Bondarets, Olga Kreerenko</i>	<i>Olga Kreerenko</i>	Session 6 Modelling Techniques and Applications	27.08 17:45 – 18:15
<b>7</b>	<b>Isolating Stock Prices Variation with Neural Networks</b> <i>Chrisina Draganova, Andreas Lanitis, Chris Christodoulou</i>	<i>Chrisina Draganova</i>	Session 6 Modelling Techniques and Applications	27.08, WBG.02 18:15 – 18:45
<b>8</b>	<b>Reconstruction of Cross-sectional Missing Data Using Neural Networks</b> <i>Iffat Gheyas, Leslie Smith</i>	<i>Iffat Gheyas</i>	Session 6 Modelling Techniques and Applications	27.08, WBG.02 18:45 – 19:15
<b>9</b>	<b>Intelligent Fuzzy Reasoning for Flood Risk estimation in river Evros</b> <i>Lazaros Iliadis, Stephanos Spartalis</i>	<i>Stephanos Spartalis</i>	Session 9 Fuzzy Systems and Finance	28.08, WBG.02 11:40 – 12:10
<b>10</b>	<b>Municipal Creditworthiness Modelling by Kernel-based Approaches with Supervised and Semi-supervised Learning</b>	<i>Petr Hajek, Vladimir Olej</i>	Session 9 Fuzzy Systems and Finance	28.08, WBG.02

	<i>Petr Hajek, Vladimir Olej</i>			12:10 – 12:40
<b>11</b>	<b>Modeling and Forecasting CAT and HDD Indices For Weather Derivative Pricing</b> <i>Achilleas Zapranis, Antonis Alexandridis</i>	<i>Antonis Alexandridis</i>	Session 9 Fuzzy Systems and Finance	28.08, WBG.02  12:40 – 13:10
<b>12</b>	<b>Fuzzy Logic and Artificial Neural Networks for Advanced Authentication using Soft Biometric Data</b> <i>Mario Malcangi</i>	<i>Mario Malcangi</i>	Session 9 Fuzzy Systems and Finance	28.08, WBG.02  13:10 – 13:40
<b>13</b>	<b>Discriminating Angry, Happy and Neutral facial Expression: A Comparison of computational models</b> <i>Aruna Shenoy, Ray Frank, Sue Anthony, Neil Davey</i>	<i>Aruna Shenoy</i>	Session 10 Medical Informatics and Cognitive Systems	28.08, WBG.02  14:40 - 15:10
<b>14</b>	<b>A Neural Network Computational model of visual selective attention</b> <i>Kleanthis Neokleous, Marios Avraamides, Costas Neokleous, Christos Schizas</i>	<i>Christos Schizas</i>	Session 10 Medical Informatics and Cognitive Systems	28.08, WBG.02  15:10 - 15:40
<b>15</b>	<b>Clustering of Entropy topography in Epileptic Electroencephalography</b> <i>Nadia Mammone, Giuseppina Inuso, Fabio La</i>	<i>Francesco C. Morabito</i>	Session 10 Medical Informatics and Cognitive Systems	28.08, WBG.02

	<i>Foresta, Mario Versaci, Francesco C. Morabito</i>			15:40 – 16:10
<b>16</b>	<b>Adaptive Electrical Signal Post-Processing with Varying Representations in Optical Communication Systems</b> <i>Stephen Hunt, Yi Sun, Alex Shafarenko, Neil Davey, Brendan Slater, Ranjeet Bamber, Sonia Boscolo, Sergei Turitsyn, Rod Adams, School of Computer Science, University of Hertfordshire</i>	<i>Stephen Hunt</i>	Session 11 Communication Systems and Classification	29.08, WBG.02  10:00 – 10:30
<b>17</b>	<b>An Improved Algorithm for SVMs Classification of Imbalanced Data Sets</b> <i>Cristiano Castro, Mateus Carvalho, Antonio Braga</i>	<i>Cristiano Castro</i>	Session 11 Communication Systems and Classification	29.08, WBG.02  10:30- 11:00
<b>18</b>	<b>Application of Neural Fuzzy Controller for streaming video over IEEE 802.15.1</b> <i>Guillaume REMY, Hassan Kazemian</i>	<i>Guillaume Remy</i>	Session 11 Communication Systems and Classification	29.08, WBG.02  11:00 – 11:30
<b>19</b>	<b>Evolutionary Ranking on Multiple Word Correction Algorithms Using Neural Network Approach</b> <i>Jun Li, Karim Ouazzane, Yanguo Jing, Hassan Kazemian, Richard Boyd</i>	<i>Jun Li</i>	Session 12 Algorithms	29.08, WBG.02  11:45- 12:15

20	<b>Relational Reinforcement Learning Applied to Appearance-Based Object Recognition</b> <i>Klaus Häming, Gabriele Peters</i>	<i>Klaus Häming</i>	Session 12 Algorithms	29.08, WBG.02  12:15- 12:45
21	<b>Nonmonotone Learning of Recurrent Neural Networks in Symbolic Sequence Processing Application</b> <i>Chun-Cheng Peng, George Magoulas</i>	<i>Chun-Cheng Peng</i>	Session 12 Algorithms	29.08 12:45- 13:15
22	<b>Simulation of Large Spiking Neural Networks on Distributed Architectures, The "DAMNED" Simulator</b> <i>Anthony Mouraud, Didier Puzenat</i>	<i>Didier Puzenat</i>	Session 12 Algorithms	29.08, WBG.02  13:15- 13:45

No	Paper	Presenter	Session	Time slot
1	<b>Information Enhancement learning: local enhanced information to detect the importance of input variables in competitive learning</b> <i>Ryotaro Kamimura</i>	<i>Ryotaro Kamimura</i>	Session 1 Clustering and Self-Organisation	27.08, , WBG.02  10:00 – 10:20
2	<b>Clustering of Pressure Fluctuation Data using Self-Organizing Map</b> <i>Masaaki Ogihara, Hideyuki Matsumoto, Tamaki</i>	<i>Hideyuki Matsumoto, Chiaki</i>	Session 1 Clustering and Self-Organisation	27.08, , WBG.02

	<i>Marumo, Chiaki Kuroda</i>	<i>Kuroda</i>		10:20 – 10:40
<b>3</b>	<b>Visualization of MIMO Process dynamics using Local Dynamic Modelling with Self Organizing Maps</b> <i>Ignacio Diaz, Abel A. Cuadrado, Alberto B. Diez, Juan J. Fuertes, Manuel Dominguez, Miguel A. Prada</i>	<i>Ignacio Diaz</i>	Session 1 Clustering and Self-Organisation	27.08, , WBG.02  10:40 – 11:00
<b>4</b>	<b>Use of data mining techniques for improved detection of breast cancer with Biofield Diagnostic System</b> <i>Vinitha Sree S, Ng E Y K, Kaw G, Rajendra Acharya U</i>	<i>Vinitha Sree S</i>	Session 2 Medical Informatics and Cognitive Systems	27.08, EBG.06  10:00 – 10:20
<b>5</b>	<b>Revealing the Structure of Childhood Abdominal Pain Data and Supporting Diagnostic Decision Making</b> <i>Adam Adamopoulos, Mirto Ntasi, Seferina Mavroudi, Spiros Likothanassis, Lazaros Iliadis, George Anastassopoulos</i>	<i>Spiros Likothanassis</i>	Session 2 Medical Informatics and Cognitive Systems Systems	27.08, EBG.06  10:20 – 10:40
<b>6</b>	<b>Reputation Prediction in Mobile ad hoc Networks Using RBF Neural Networks</b> <i>Fredric M. Ham, Eyosias Yoseph Imana, Attila Ondi,</i>	<i>Fredric M. Ham</i>	Session 4 Classification and Prediction	27.08, EBG.06

	<i>Richard Ford, William Allen, Matthew Reedy</i>			14:20- 14:40
<b>7</b>	<b>Dissimilarity-based Classification of Multidimensional Signals by Conjoint Elastic Matching: Application to Phytoplanktonic Species Recognition</b> <i>Emilie Caillault, Pierre-Alexandre Hébert, Wacquet Guillaume</i>	<i>Emilie Caillault</i>	Session 4 Classification and Prediction	27.08, WBG.02  14:40 – 15:00
<b>8</b>	<b>Using the Support Vector Machine as a Classification Method for Software Defect Prediction with Static Code Metrics</b> <i>David Gray, David Bowes, Neil Davey, Yi Sun, Bruce Christianson</i>	<i>David Gray</i>	Session 4 Classification and Prediction	27.08, WBG.02  15:00 – 15:20
<b>9</b>	<b>Neural Networks for Forecasting in a Multi-Skill Call Centre</b> <i>Jorge Pacheco, David Millán-Ruiz, José Luis Vélez</i>	<i>David Millán-Ruiz</i>	Session 4 Classification and Prediction	27.08, WBG.02  15:20 – 15:40
<b>10</b>	<b>Study of alpha peaks fitting by techniques based on neural networks</b> <i>Javier Miranda, Rosa Pérez, Antonio Baeza, Javier Guillén</i>	<i>Javier Miranda</i>	Session 4 Classification and Prediction	27.08, WBG.02  15:40 – 16:00

<b>11</b>	<b>Flash Flood Forecasting by Statistical Learning in the Absence of Rainfall Forecast: a Case Study</b> <i>Mohamed Samir Toukourou, Anne Johannet, Gérard Dreyfus</i>	<i>Mohamed Samir Toukourou</i>	Session 5 Environmental Applications	27.08, EBG.06  14:20 – 14:40
<b>12</b>	<b>Sensitivity analysis of Forest Fire Risk factors and development of a corresponding Fuzzy Inference System: The case of Greece</b> <i>Theocharis Tsataltzinos, Lazaros Iliadis, Spartalis Stefanos</i>	<i>Theocharis Tsataltzinos</i>	Session 5 Environmental Applications	27.08, EBG.06  14:40- 15:00
<b>13</b>	<b>Riverflow prediction with artificial neural networks</b> <i>A. W. Jayawardena</i>	<i>A. W. Jayawardena</i>	Session 5 Environmental Applications	27.08, EBG.06  15:00 - 15:20
<b>14</b>	<b>Reducing urban concentration using a neural network model</b> <i>Leandro Tortosa, Jose Vicent, Antonio Zamora, Jose L. Oliver</i>	<i>Jose L. Oliver</i>	Session 5 Environmental Applications	27.08, EBG.06  15:20 – 15:40
<b>15</b>	<b>A Neural Network Model for the Critical Frequency of</b> <i>Haris Haralambous, Harris Papadopoulos</i>	<i>Haris Haralambous</i>	Session 5 Environmental Applications	27.08, EBG.06  15:40- 16:00

<b>16</b>	<b>Neural network based damage detection of dynamically loaded structures</b> <i>David Lehký, Drahomír Novák</i>	<i>David Lehký</i>	Session 7 Modelling Techniques and Applications	28.08, WBG.02  10:00 – 10:20
<b>17</b>	<b>Datavisualisation and exploration with prior knowledge</b> <i>Martin Schroeder, Dan Cornford, Ian Nabney</i>	<i>Martin Schroeder</i>	Session 7 Modelling Techniques and Applications	28.08, WBG.02  10:20- 10:40
<b>18</b>	<b>Dictionary-based classification models. Applications for multichannel neural activity analysis</b> <i>Vincent Vigneron, Hsin Chen, You-Yin Chen, Yen-Tai Chen, Hsin-Yi Lai</i>	<i>Vincent Vigneron</i>	Session 7 Modelling Techniques and Applications	28.08, WBG.02  10:40- 11:00
<b>19</b>	<b>An Application Of The Occam Factor To Model Order Determination</b> <i>David Booth, Ruth Tye</i>	<i>David Booth</i>	Session 7 Modelling Techniques and Applications	28.08, WBG.02  11:00 – 11:20
<b>20</b>	<b>Combining GRN Modeling and Demonstration-Based Programming for Robot Control</b> <i>Wei-Po Lee</i>	<i>Wei-Po Lee</i>	Session 8 Algorithms and Control Systems	28.08, EBG.06  10:00 – 10:20
<b>21</b>	<b>Indirect Adaptive Control Using Hopfield-based Dynamic Neural Network for SISO Nonlinear</b>	<i>Pin-Cheng Chen</i>	Session 8 Algorithms and Control Systems	28.08, EBG.06

	<b>Systems</b> <i>Pin-Cheng Chen, Chi-Hsu Wang, Tsu-Tian Lee</i>			10:20-10:40
<b>22</b>	<b>Ellipse Support Vector Data Description</b> <i>Mohammad GhasemiGol, Reza Monsefi, Hadi Sadoghi Yazdi</i>	<i>Mohammad GhasemiGol</i>	Session 8 Algorithms and Control Systems	28.08, EBG.06  10:40-11:00
<b>23</b>	<b>Enhanced Radial Basis Function Neural Network design using Parallel Evolutionary Algorithms</b> <i>Elisabet Parras-Gutierrez, Maribel García-Arenas, Victor M. Rivas-Santos</i>	<i>Elisabet Parras-Gutierrez</i>	Session 8 Algorithms and Control Systems	28.08, EBG.06  11:00 – 11:20