# Programme of Events

- **Location:** All events are in Room IT407, Kilburn Building (except the registration and lunch)
- **Registration Location:** The main registration is at the ground floor, Kilburn Building, between 9:00am-11:00am on 7th September. The late registration will be at IT406 during the workshop breaks listed below.

## Wednesday, 7th of September

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00am</td>
<td>Registration open, at the ground floor, Kilburn Building</td>
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<tr>
<td>9:55am</td>
<td>Xiao-Jun Zeng, Opening Address</td>
</tr>
<tr>
<td>10:00am-11:00am</td>
<td><strong>Keynote Speaker:</strong> Sheng Chen, Orthogonal Least Squares Regression: An Efficient Approach for Parsimonious Modelling from Large Data</td>
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<tr>
<td>11:00pm</td>
<td>Syibrah Naim and Hani Hagras, Type-2 Fuzzy Logic in Multi-Criteria Group Decision Making with Intuitionistic Evaluation</td>
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<tr>
<td>11:20pm</td>
<td>Chengyuan Chen and Qiang Shen, Towards Fuzzy-Rough Rule Interpolation</td>
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<tr>
<td>11:40pm</td>
<td>Andrei Majidian, Trevor Martin and Marcos Cintra, Fuzzy Formal Concept Analysis and Algorithm</td>
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<tr>
<td>12:00pm</td>
<td>Majid Almaraashi, Robert John and Samad Ahmadi, Tuning Type-2 Fuzzy Systems by Simulated Annealing To Estimate Maintenance Cost</td>
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<tr>
<td>12:20pm</td>
<td>Shangzhu Jin, Ren Diao and Qiang Shen, Towards Backward Fuzzy Rule Interpolation</td>
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<tr>
<td>12:40pm – 2:00pm</td>
<td><strong>Lunch at the lower ground floor, Kilburn Building</strong></td>
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## Session 2: Evolutionary Computing and Optimisation 1, Chair: Jie Zhang

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>2:00pm</td>
<td>Scott F. Page, Sheng Chen, Chris J. Harris and Neil M. White, Pareto Repeated Weighted Boosting Search for Multiple-Objective Optimisation</td>
</tr>
<tr>
<td>2:20pm</td>
<td>Jian-Ping Li and Alastair Wood, Reliability Redundancy Optimization using MOEA/D</td>
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<tr>
<td>2:40pm</td>
<td>Kevin Swingler, A Hopfield Network for Multi-Target Optimization</td>
</tr>
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<td>3:00pm</td>
<td>Ekram F. M. Hamouda and Jian-Ping Li, Optimal Task Allocation in Wireless Sensor Networks with Adaptive Species Conservation Genetic Algorithm</td>
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<td>Time</td>
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<tr>
<td>3:20pm</td>
<td>Kazim-Junior Mohammed and Jie Zhang, Optimisation Control of a Reactive</td>
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<td>Polymer Composite Moulding Process Using Ant Colony Optimisation and</td>
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<td>Bootstrap Aggregated Neural Networks</td>
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<tr>
<td>3:40pm – 4:00pm</td>
<td>Break, tea &amp; coffee at IT406 (next to IT 407)</td>
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<tr>
<td>4:00pm</td>
<td>Session 3: Emerging and Applied Computational Intelligence 1, Chair: Colin</td>
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<tr>
<td>4:20pm</td>
<td>Wesam Ashour and Colin Fyfe, Improving clustering using Bregman divergences</td>
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<tr>
<td>4:20pm</td>
<td>Jenna Reps, Jan Feyereisl, Jonathan Garibaldi, Uwe Aickelin, Jack Gibson and Richard Hubbard, Investigating the Detection of Adverse Drug Events in a UK General Practice Electronic Health-Care Database</td>
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<tr>
<td>4:40pm</td>
<td>Bruce Graham, Ausra Saudargiene, Stuart Cobb and Imre Vida, Associational</td>
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<td>Learning in Cortical Pyramidal Cells</td>
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<tr>
<td>5:00pm</td>
<td>Steven Grima, Mark Barnard and Wenwu Wang, Robust Multi-Camera Audio-Visual Tracking</td>
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<td>5:20pm</td>
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</table>
### Thursday, 8th of September

**Session 4: Neural Computing, Chair: George Coghill**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
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<tbody>
<tr>
<td>9:00am</td>
<td>Hala Helmi, Uwe Aickelin and Jon Garibaldi, Examine TSVM Algorithm</td>
<td>Classification Accuracy with Feature Selection in Comparison with GLAD Algorithm</td>
</tr>
<tr>
<td>9:20am</td>
<td>Darren Hau and Ke Chen, Exploring Hierarchical Speech Representations with a Deep Convolutional Neural Network</td>
<td></td>
</tr>
<tr>
<td>9:40am</td>
<td>Claire E. Gerrard, John McCall, George M. Coghill and Christopher Macleod, Artificial Reaction Networks</td>
<td></td>
</tr>
<tr>
<td>10:00am</td>
<td>Colin Fyfe, Xi Wang and Wenbing Chen, Applying Bregman Divergences to the Neuroscale Algorithm</td>
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<tr>
<td>10:20am</td>
<td>Colin Fyfe, Xiaochuan Wu and Tzai Der Wang, The Role of Structure, Size and Sparsity in Echo State Networks for Visualisation</td>
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</tr>
<tr>
<td>10:40am – 11:00am</td>
<td><strong>Break, tea &amp; coffee at IT406</strong></td>
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**Keynote 2**

**Keynote Speaker: Steve Furber**, Building Brains

**Chair: Qiang Shen**

12:00 – 12:40pm **UKCI Business session, Chair: Qiang Shen**

Philippe De Wilde, UKCI 2012

12:40pm – 2:00pm **Lunch at the lower ground floor, Kilburn Building**

**Session 5: Emerging and Applied Computational Intelligence 2, Chair: Trevor Martin**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
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<tbody>
<tr>
<td>2:00pm</td>
<td>George Coghill and Hind Al-Ballaa, Diagnosis via Qualitative Parameter Estimation</td>
<td></td>
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<tr>
<td>2:20pm</td>
<td>Javier Asensio Cubero, Ramaswamy Palaniappan and John Q. Gan, A Study on Temporal Segmentation Strategies for Extracting Common Spatial Patterns for Brain Computer Interfacing</td>
<td></td>
</tr>
<tr>
<td>2:40pm</td>
<td>Ali Al-Timemy, Guido Bugmann, Nicholas Outram, Javier Escudero and Hai Li, Classification of Finger Movements for the Proper Control of Prosthetic Hand</td>
<td></td>
</tr>
<tr>
<td>3:00pm</td>
<td>Basabdatta Sen Bhattacharya, Damien Coyle and Liam Maguire, Synaptic Deficiency in Alzheimer Disease and its Implications on Thalamic and Cortical Oscillations-a Study Using a Neural Mass Model</td>
<td></td>
</tr>
<tr>
<td>3:20pm</td>
<td>Anna Wojak, Daniel Neagu and Mick Ridley, Double Min-Score (DMS) Algorithm for Automated Model in Predictive Toxicology</td>
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<tr>
<td>3:40pm – 4:00pm</td>
<td><strong>Break, tea &amp; coffee at IT406</strong></td>
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**Session 6: Evolutionary Computing and Optimisation 2, Chair: Jian-Ping Li**

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>4:00pm</td>
<td>Wei Pang and George Coghill, A Fast Opt-AINet approach to Qualitative Model Learning with Modified Mutation Operator</td>
<td></td>
</tr>
<tr>
<td>4:20pm</td>
<td>Muhammad Tariq, Hammad Majeed, Jian-Ping Li and Alastair Wood, On The Usefulness of Worst Individuals in Multimodal Optimization</td>
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<td>Time</td>
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<tr>
<td>4:40pm</td>
<td>Jiankang Zhang, Sheng Chen, Xiaomin Mu and Lajos Hanzo, Differential Evolution Algorithm Aided MBER Beamforming Receiver for Quadrature Amplitude Modulation Systems</td>
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<tr>
<td>5:00pm</td>
<td>Meysam Orouskhani, Yasin Orouskhani and Mohammad Teshnehlab, A New Adaptive and Dynamic Strategy in Cat Swarm Optimization</td>
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<tr>
<td>5:20pm</td>
<td>Volkan Uslan and Ihsan Omur Bucak, Global Pairwise Sequence Alignment using Ant Colony Optimization</td>
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<td>5:40pm</td>
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<tr>
<td><strong>6:30pm</strong></td>
<td><strong>Banquet Dinner At Tai Pan Chinese Restaurant, 81-97 Upper Brook Street, Manchester M13 9TX</strong></td>
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</table>
Friday, 9th of September

Session 7: Emerging and Applied Computational Intelligence 3, Chair: Jon Garibaldi and Shengxiang Yang

9:00am  Noor Azizah K.S Mohamadali and Jonathan Garibaldi, Modelling Students’ Perception on Factors Influence Acceptance of Research Related Software Using Multi-Criteria Decision Analysis (MCDA) Methods

9:20am  Noor Azizah Ks Mohamadali and Jonathan M. Garibaldi, Comparing User Acceptance Factors between Research Software and Medical Software using AHP and Fuzzy AHP

9:40am  Michalis Mavrovouniotis and Shengxiang Yang, An Ant System with Direct Communication for the Capacitated Vehicle Routing Problem

10:00am Sameh Bellegdi, Samer Mohandes, Othman Soufan and Samer Arafat, Computational Intelligence for Cardiac Arrhythmia Classification

10:20am Govindarajan Muthukumarasamy and Jin Yaochu, Ensembles of Classification Methods for Data Mining Applications

10:40am – 11:00am  Break, tea & coffee at IT406

Session 8: Emerging and Applied Computational Intelligence 4, Chair: John Keane

11:00am  Ian Dent, Uwe Aickelin and Tom Rodden, Application of a Clustering Framework to UK Domestic Electricity Data

11:20am  Azman Ali, Plamen Angelov and David Hutchison, Toward an Adaptive Resilience Strategy for Future Computer Networks

11:40am  Liyen Wong, Maybin Muyeba and John Keane, Towards Adaptive Mining of Spectral Features

12:00pm  Rana Salaheldin and Neamat El Gayar, Multiple Classifiers for Time Series Classification Using Adaptive Fusion of Feature and Distance Based Methods

12:20  Workshop close