Monday 7th September

10:00  Registration Opens  
Foyer, The Exchange Building, Jubilee Campus  
Tea & Coffee

Lecture Theatre 1, Exchange Building

10:45  Opening Address  
Dr Jonathan M Garibaldi

11:00  Plenary 1:  
Prof. Jon Timmis, University of York  
‘Rethinking Artificial Immune Systems’

12:00  Session 1:  
Artificial Immune Systems

12:00  ‘PCA 4 DCA: The Application of Principal Component Analysis to the Dendritic Cell Algorithm’  
Feng Gu, Julie Greensmith, Robert Oates and Uwe Aickelin

12:20  ‘Aggregation of Swarms for Fault Tolerance in Swarm Robotics using an Immuno-engineering Approach’  
Amelia Ritahani Ismail and Jon Timmis

12:40  ‘System Dynamics Modelling of the Processes Involving the Maintenance of the Naive T Cell Repertoire’  
Grazziella Figueredo, Amanda Whitbrook and Uwe Aickelin

13:00  Lunch Break  
School of Computer Science, Jubilee Campus

14:00  Session 2:  
Fuzzy 1

14:00  ‘A New Model of Fuzzy Formal Concept Lattice and Its Simplification’  
Siyao Zheng, Yiming Zhou and Trevor Martin

14:20  ‘Extending Adaptive Interpolation: From Triangular to Trapezoidal’  
Longzhi Yang and Qiang Shen

14:40  ‘Automated Fuzzy Decision Making System with Learning in Business Networks of Varying Connectivity’  
Festus Oluseyi Oderanti and Philippe De Wilde

15:00  ‘A Comparison of Methods for Optimising Resource Plans’  
Simon M. Miller, Mario Gongora and Viara Popova

15:30  Tea & Coffee Break  
Foyer, The Exchange Building, Jubilee Campus
<table>
<thead>
<tr>
<th>Time</th>
<th>Session 3:</th>
<th>Title</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>16:00</td>
<td>Fuzzy 2</td>
<td>'Use of Fuzzy Formal Concept Analysis in data mining and automatic taxonomy extraction’</td>
<td>Andrei Majidians and Trevor Martin</td>
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<td>16:00</td>
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<td>'Fuzzy Helicopter Rotor Speed Estimation based on Sound’</td>
<td>Benjamin N. Passow and Mario A. Gongora</td>
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<td>16:20</td>
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<td>'Extending Operations on Type-2 Fuzzy Sets’</td>
<td>Hussam Hamrawi, Simon Coupland, and Robert I. John</td>
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<td>17:00</td>
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<td>'Technical Chart Pattern Recognition using Evolutionary Fuzzy Classifiers’</td>
<td>M. Tarik Sekmen</td>
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<td>17:30</td>
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Tuesday 8th September

Lecture Theatre 3, Exchange Building

09:30  Session 4: Neural Networks and Particle Swarms

09:30  ‘Using Wavelet Packet Transform and Immune Neural Network for Motor Fault Diagnosis’
        Xin Wen, David J. Brown and Honghai Liu

09:50  ‘Temporal White-Box Testing Using Evolutionary and Search-Based Algorithms’
        Noura Al Moubayed and Bashar Awwad Shiekh Hasan

10:10  ‘Feature Selection in Evolved Artificial Neural Networks using the Evolutionary Algorithm EPNet’
        Victor Landassuri-Moreno and John A. Bullinaria

10:30  ‘Multi-Objective Particle Swarm Optimization for Channel Selection in Brain-Computer Interfaces’
        Bashar Awwad Shiekh Hasan and John Q. Gan

11:00  Tea & Coffee Break  Foyer, The Exchange Building, Jubilee Campus

11:30  Session 5: Evolutionary Algorithms and Genetic Programming

11:30  ‘Evolutionary Programming Using a Mixed Strategy Adapting to Local Fitness Landscape’
        Liang Shen and Jun He

11:50  A Sequence Based Genetic Algorithm with Local Search for the Travelling Salesman Problem’
        Shakeel Arshad, Shengxiang Yang, and Changhe Li

12:10  ‘A system for information flow modelling and data mining in high-throughput discovery of nano-materials’
        Yang Yang and Xue Wang

12:30  ‘Predicting the stock market’
        Koon H. Wong and Chris J. Hinde

13:00  Lunch Break  School of Computer Science, Jubilee Campus

14:00  Plenary 2: Prof. Trevor Martin, University of Bristol
        ‘Computational Intelligence in the Era of Approximate Computing and Partial Information’

15:00  Tea & Coffee Break  Foyer, The Exchange Building, Jubilee Campus
15:30  Session 6: General Computational Intelligence 1

15:30  ‘P-Controller as an Expert System for Maneuvering Rudderless Sail Boats’
       Naisan Benatar, Omer Qadir, Jenny Owen and Paul Baxter

15:50  ‘Digital Image Manipulation: an Interdisciplinary Approach’
       Zoë Allman and Mario Gongora

16:10  ‘A Modified Expectation Maximization Algorithm for Gaussian Mixture Models’
       Zhaojie Ju and Honghai Liu

16:30  ‘Power of Web 2.0 Mass Collaboration in Computational Intelligence and its uses, an example from Finance’
       Martin D. Sykora

16:50  ‘Modelling Survival Prediction in Medical Data’
       Hazlina Hamdan and Jonathan M. Garibaldi

17:10  ‘Extending hierarchical classification with semi-supervised learning’
       Jean Metz and Alex A. Freitas

17:30  Committee Meeting  UKCI Committee Meeting & announcement of UKCI 2010

17:45  Close

19:00  Dinner at Trent Bridge International Cricket Ground, Trent Bridge, NG2 6AG
**Wednesday 9th September**

**Lecture Theatre 1, Exchange Building**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 7: Support Vector Machines and Bio-Medical Applications</th>
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| 09:20 | ‘Feature Selection and Classification of Proteomic Mass Spectra Data using Genetic Programming’  
       | Samson Habte and Shan He                                     |
| 09:40 | ‘An Investigation into the use of Fuzzy C-Means Clustering of Fourier Transform Infrared Microscopic Data for the Automation of Breast Cancer Grading’  
       | Shabbar Naqvi and Jonathan M. Garibaldi                      |
| 10:00 | ‘Model-based and model-free clustering: a case study of protein expression data for breast cancer’  
| 10:20 | ‘Using Novelty Detection Methods to Identify Abnormalities in Aircraft Flight Data’  
       | Edward P. Smart and David J. Brown                           |
| 10:40 | ‘Evaluation of SVM-based Strategies for Novel Face Detection’  
       | Shanjing Ke, José A. Rodríguez-Serrano, and Sameer Singh     |

11:00 Tea & Coffee Break  
Foyer, Exchange Building, Jubilee Campus

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<tr>
<th>Time</th>
<th>Session 8: General Computational Intelligence 2</th>
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| 11:20 | ‘A Method for Classifying Mental Tasks in the Space of EEG Transforms’  
       | Renato Amorim, Boris Mirkin and John Q. Gan    |
| 11:40 | ‘A Review of Selected Multi-Criteria Decision Analysis Techniques and Applications’  
       | Noor Azizah KS Mohamadali and Jonathan M. Garibaldi |
| 12:00 | ‘Typed Cartesian Genetic Programming for Image Classification’  
       | Phil T. Cattani and Colin G. Johnson           |
| 12:20 | ‘Exemplar-based View-invariant Human Actions recognition’  
       | Xiaofei Ji, Honghai Liu and Yibo Li            |
| 12:40 | ‘Exploiting Concept Contexts for Progressive Image Tagging’  
       | Ning Zhou, Guoping Qiu, William K. Cheung and Xiangyang Xue |

13:00 Lunch  
School of Computer Science, Jubilee Campus

14:00 Closing Remarks