PROGRAMME

5 September Monday

10:00 Registration

11:00 Coffee

11:30-12:00 Opening remarks

Prof. Alex Poulovassilis (Head SCSIS Birkbeck)
Prof. Boris Mirkin (Chair UKCI05)

12:00-1:00 Plenary talk

Qiang Shen (U Aberystwyth)
Combining Rough and Fuzzy Sets for Feature Selection

1:00-2:00 Lunch

2:00-3:40 Session: Intelligent Techniques and Applications I

Michelle Galea (U Edinburgh), Qiang Shen (U Aberystwyth) and Vishal Singh (Larson India)
Encouraging Complementary Fuzzy Rules within Iterative Rule Learning

Parkpoom Lekhavat and Chris Hinde (U Loughborough)
Fuzzy reasoning in Computer Go opening stage strategy

Peter C R Lane (U Hertfordshire) and Fernand Gobet (Brunel)
Apply multi-criteria optimisation to develop cognitive models

Allan Bruce and George Coghill (U Aberdeen)
Implementing Parallelisations in a Fuzzy Qualitative Reasoning Engine

Osama Zaki, Keith Brown and Dave Lane (Heriot-Watt U Edinburgh)
Automatic Generation of Software Agents for Physical Model from a Description
3:40-4:10  Coffee break

4:10-5:50 Session: Learning Classifiers

Chris Hinde and Yen Cheung (U Loughborough)
Data Mining in Continuous Data Sets

John Q. Gan (U Essex Colchester)
On Optimal Criteria of Data-Driven Design of Linear Projections for Classification

Rónán Daly (U Edinburgh) and Qiang Shen (U Aberystwyth)
A Framework for the Scoring of Operators on the Search Space of Equivalence Classes of Bayesian Network Structures

Shang-Ming Zhou and John Gan (U Essex Colchester)
L2-SVM Based Fuzzy Classifier with Automatic Model Selection and Fuzzy Rule Ranking

Dell Zhang (Birkbeck London) and Wee Sun Lee (U Singapore)
A Simple Probabilistic Approach to Learning from Positive and Unlabeled Examples

6 September Tuesday

8:50-9:50 Plenary talk

Jean Diatta (U Reunion, France)
Formal Concepts and Galois Weak Hierarchies: Theoretical and Computational Issues

9:50-10:10 Coffee break

10:10-11:50 Session: Fuzzy Constructs

Richard Jensen and Qiang Shen (U Aberystwyth)
Fuzzy-Rough Feature Significance for Fuzzy Decision Trees

George M. Coghill, Allan Bruce, Carol Wisley and Honghai Liu (U Aberdeen)
Integrating Fuzzy Qualitative Trigonometry with Fuzzy Qualitative Envisionment

Zhiheng Huang (U Edinburgh) and Qiang Shen (U Aberystwyth)
Preserving Piece-wise Linearity in Fuzzy Interpolation

Chris Hinde, Robert Patching (U Loughborough) and Steve McCoy (Hazid Techn-Nottingham)
Semantic Unification of Continuous Sets

Sarah Greenfield (Greenfield Enterprises Ltd Leicester), Robert John and Simon Coupland (U De Montfort Leicester)
A Novel Sampling Method for Type-2 Defuzzification

11:50-12:10 Coffee break

12:10-1:50 Session: Analysing Spatial Data

Samarasena Buchala, Neil Davey, Tim Gale and Ray Frank (U Hertfordshire Hatfield)
Principal Component Analysis of Face Properties
Lin Zhang and Nigel Allinson (U Sheffield)
Automatic Shoeprint Retrieval System for Use in Forensic Science

Susana Nascimento, Fátima Sousa, Hugo Casimiro and Dmitri Boutov (U Nova, Lisbon, Portugal)
Applicability of Fuzzy Clustering for the Identification of Upwelling Areas on Sea Surface Temperature Images

Jonathan Rossiter (U Bristol) and Toshiharu Mukai (IPCR Japan)
Guided Learning from Images Using an Uncertain Granular Model and Biomimicry of the Human Fovea

Xiaowei Zhou, Plamen Angelov and Gruff Morris (Lancaster University)
Novelty Detection and Landmark Recognition by Real-time Evolving Clustering

1:50-2:30 Lunch

2:30-4:10 Session: Intelligent Techniques and Applications II

Basim Majeed, Ben Azvine, Steve Brown (ISR/PICTR BT Adastral Park) and Trevor Martin (U Bristol)
Intelligent Systems for Telecare

Xue Zhong Wang, F.W. Buontempo, M. Mwense (U Leeds), Anita Young (AstraZeneca Brixham) and Daniel Osborn (CEH Huntingdon)
Induction of Decision Trees Using Genetic Programming for the Development of SAR Toxicity Model

Robert Stanforth, Evgueni Kolossov (IDBS Guilford) and Boris Mirkin (Birkbeck London)
A Cluster-Based Measure of Domain of Applicability of a QSAR Model

Neil Davey and Yi Sun (U Hertfordshire Hatfield)
Using Real-Valued Meta Classifiers to Integrate Binding Sites

Kevin Doherty, Rod Adams and Neil Davey (U Hertfordshire Hatfield)
Hierarchical Topological Clustering Learns Stock Market Sectors

4:10-4:30 Coffee break

4:30-6:10 Session: Classification and Clustering (Jointly with the British Classification Society)

Eduarda Mendes Rodrigues and Lionel Sacks (UCL London)
Learning Topic Hierarchies from Text Documents using a Scalable Hierarchical Fuzzy Clustering Method

Behrad Assadian, Ben Azvine (BT) and Trevor Martin (U Bristol)
Asymmetric Word Similarity

Rajesh Pampapathi, Boris Mirkin and Mark Levene (Birkbeck London)
A Suffix Tree Approach to Text Categorisation Applied to Spam Filtering

Gentian Gusho (ENST-Bretagne, France)
Properties of Minimum Rigidity Graphs Associated with a Clustering System

Fionn Murtagh (Royal Holloway London)
Clustering in Very High Dimensions

7:30-10:00 Workshop Dinner, Chez Gerrard, Covent Garden
7 September Wednesday

8:50-9:50 Plenary talk
   Riccardo Poli (U Essex Colchester)
   Surfing the Waves of Artificial Intelligence

9:50-11:30 Session: Evolutionary Computations

   Dimitris Tasoulis, Vassilis Plagianakos and Michael Vrahatis (U Patras Greece)
   Efficient Evolutionary Unsupervised Clustering

   Chris Hinde and James Hillman (U Loughborough)
   Evolving UAV Tactics with an Infected Genome

   George Magoulas and Aristoklis Anastasiadis (Birkbeck London)
   Computational Techniques with Adaptation Schedules Based on the Nonextensive q-Distribution

   Meng Yang and A.E.A. Almaini (U Napier Edinburgh)
   An Investigation on FPGA Placement Using Mixed Genetic Algorithm with Simulated Annealing

   Hao Wu, Jun He and Xin Yao (U Birmingham)
   A Web Service Demo of Evolutionary Programming Using a Mixed Mutation Strategy for Function Optimization

11:30-11:50 Coffee break

11:50-1:30 Session: Intelligent Techniques and Applications III

   John Woodward (U Birmingham)
   Complexity and Cartesian Genetic Programming

   John Woodward (U Birmingham)
   Invariants of Function Complexity under Primitive Recursive Functions

   Chris Hinde and Jeremy Rimmer (U Loughborough)
   Acceptance of Context Sensitive Languages Using Ribonucleic Acid Computation

   Ito Wasito, Mutia N. Estri and Suriza Akhmad Zabidi (U Kuala Lumpur Malaysia)
   Selection of Number of Factors and Neighbours of INI for Microarray Gene Expression

   Hishammuddin Asmuni, Edmund Burke and Jonathan Garibaldi (U Nottingham)
   Fuzzy Multiple Heuristic Orderings for Course Timetabling Problem

1:30-2:30 Lunch

2:30-4:00 Plenary meeting

   Discussion: Computational Intelligence as a Discipline

   Closing the Workshop