The 8th International Conference on
The Dynamics of Information Systems (DIS 2025)

Preliminary Programme

Conference location: Room HG19, Hatchcroft building, Middlesex University, London NW4 4BT

June 1, Sunday

17:00–19:00	Welcome reception	The Greyhound Pub, Church End, London NW4 4JT

June 2, Monday

8:30	Registration	Hatchcroft building foyer

Conference opening

9:30	Welcome address by the Vice-Chancellor of Middlesex University, Professor Shân Wareing

Plenary talk

9:45	Panos Pardalos	Dynamics of Information Systems
10:30	Coffee break	

Session 1 (11:00–13:00): Network and Portfolio Optimization

11:00	Vladimir Boginski	Sparsified Neural Network Architectures Inspired by Optimal Strongly Attack Tolerant Network Configurations
11:20	David Hartman	Improving the efficiency of methods evaluating approximate symmetry
11:40	Imma Lory Aprea	Optimizing sustainable portfolio allocation with neural networks and particle swarm algorithm
12:00	Gabriele Sbaiz	Genetic Programming for the Reconstruction of Delay Differential Equations in Economics
12:20	Alexander Semenov	Social Network Influence Propagation, Stability, and Systems of Non-linear Equations
12:40	Eva K Lee	RealOpt-Contingency — A Computational Platform for All Hazard and Disaster Response
13:00	Lunch	

Session 2 (14:30–15:50): Optimization Theory

14:30	Jean-Jacques Godeme	Derivatives of inertial methods for smooth functions
14:50	Jean-Jacques Godeme	Quadratic optimization from a control theory perspective
15:10	Ghurumuruhan Ganesan	Extracting High Quality Data Subsets using Monte-Carlo Search
15:30	Panos Parpas	Using Witten Laplacians to locate index-1 saddle points
16:00	Coffee break	

Session 3 (16:30–18:10): Operations Research

16:30	Adam Górski	Optimization of a car production process specified by an extended task graph
16:50	Dariush Ebrahimi	Dynamic Priority-Based Management to Optimize Emergency Department Flow
17:10	Dariush Ebrahimi	Dynamic Resource Allocation in Cloud Computing: A Real-Time Adaptive Task Scheduling Approach
17:30	Karima Rihane	Learning-Based Approaches for Job Shop Scheduling Problems: A Review
17:50	Ifeyinwa Okonkwo	Enhancing Librarian Competence: Exploring the Relationship between Professional Development and Electronic Resource Management Skills in Nigerian Libraries.

June 3, Tuesday

Plenary talk

9:00	Tyrrell Rockafellar	Adapting Information to Different Quantifactions of Risk
10:00	Coffee break	

Session 4 (10:30–12:00): Geometry and Value of Information

10:30	Valérie Girardin	Minimum of divergences with relaxation: A Hilbertian alternative approach to duality
10:50	Kaori Yamaguchi	On statistics which are almost sufficient from the viewpoint of the Fisher metrics
11:10	Stephan Weis	Continuity of the maximum entropy inference
11:30	Stefan Behringer	Value of information in Bayesian environments

Conference photo (11:50–12:00)

12:00	Lunch

Plenary talk

13:30	José C. Principe	Self-Organization with Information Dynamics
14:30	Coffee break	

Session 5 (15:00–16:40): Uncertainty Modelling

15:00	Théo Grente	Deterministic Optimization Versus Markov Chain Monte Carlo for Studying the Impact of Degradation in Linear Inverse Modeling for Trophic Systems
15:20	Senthilkumar Somasundaram	House price forecast using Artificial Neural Networks
15:40	Maryam Badrizadeh	Evaluating Pension Fund Performance with AI-integrated DEA
16:00	Hossein Hashemi Doulabi	Stochastic Casualty Response Planning with Operational Details
16:20	Mohammad Ali Nematollahi	ICU Outcomes Prediction Using Optimized Extra Trees Classifier and Lasso-Based Feature Selection

Gala Dinner at OXO Tower (Central London)

19:00	Gala dinner	OXO Restaurant, Barge House St, London SE1 9PH

June 4, Wednesday

Plenary talk

9:00	Xin-She Yang	Insights and Open Problems in Nature-Inspired Computing
10:00	Coffee break	

Session 6 (10:30–12:10): Machine Learning and AI Applications I

10:30	Abdul-Rahman Mawlood-Yunis	Enhancing Academic Assistance with Retrieval-Augmented Generation (RAG): A Knowledge-Base Driven Approach
10:50	Omid Zare	Time Series Step Tree: A Novel Interpretable Method for Prompt Classification of Time Series
11:10	Omid Zare	XRS: An Efficient Hybrid Model for Breast Cancer Recurrence Prediction
11:30	Ivan Gruber	Automated Processing of Historical Documents Using Named Entity Recognition and Face Extraction
11:50	Pankaj Verma	American Sign Language Interpretation with Convolution Neural Network Models
12:10	Lunch	

Afternoon: Thames River Boat Cruise

12:45	Coach to Westminster Pier	Middlesex University
14:00	Thames River Boat Cruise	Gate D, Westminster Pier, Victoria Embankment, Westminster, London, SW1A 2JH

June 5, Thursday

Plenary talk

9:00	Roman Belavkin	Information dynamics and dynamical value of information
10:00	Coffee break	

Session 7 (10:30–12:10): Network and Data Security

10:30	Ngan Nguyen	Implementing Blockchain for Enhanced Security of Child Health Records: A Focus on Encrypted NFTs and Smart Contracts
10:50	Ankit Jain	Detection and Mitigation of DDoS Attacks on SDN Controller in IoT Network using Gini Impurity
11:10	Mohit Dua	Replay Attack Detection: A Group Delay Cepstral Perspective
11:30	Pankaj Verma	Spectrum Sensing in Cognitive Radio using Transformer based Deep Learning Architecture
11:50	Trailokya Sasamal	An optimal QCA-based Demultiplexer Structure Towards Scalable Design
12:10	Lunch	

Session 8 (13:30–15:30): Machine Learning and AI Applications II

13:30	Badis Djamaa	Distributed Approaches for Hyperparameter Optimization of a Deep Learning Model
13:50	Badis Djamaa	Harnessing the Power of Generative Adversarial Networks for Enhancing Android Security
14:10	Sajid Ahmed	A review on Responsible Surveillance: Bridging Technological Advancements with Ethical and Privacy Concerns
14:30	Danial Sharifrazi	Brain Ageing Prediction using Isolation Forest Technique and Residual Neural Network (ResNet)
14:50	Ali Kohan	Enhancing Multiagent Genetic Network Programming Performance Using Search Space Reduction
15:10	Vashkar Ghosh	Network Structures and Audit Policies: An Operational Perspective with Security Breaches
15:30	Mohammad Ali Nema-tollahi	Malicious URL Detection Using Optimized Hist Gradient Boosting Classifier based on the Grid Search Method
15:50	Coffee break	

Collaborative research discussion and initiatives

16:30	Research discussion

Conference closure

N

Primary School

Allotments

Multipurpose sports pitches

3G artificial turf pitches

Sports Pavilion

Nursery

Portakabin 8 Male

Female

Grove Park

MDX House

MDXSU - Students' Union

Ritterman

Vine

P

Grove

Portakabin A

Portakabin 6 & 7

Building 10

Portakabin 2

Sheppard Library

UniHelp

Portakabin B

Wellcome Reception @ The Greyhound Pub

Sunny Hill House

Farm Side

Sunny Hill Park

Coach PickUp

DIS2025

Hatchcroft

Annexe

College Building

Rickett Quadrangle

Scholars Courtyard

Williams Building

P

Barn

Model Farmhouse

Church Farm

ST JOSEPHS GROVE

Hendon Town Hall

Building 9

Library

Fire Station

Conference Photo

GREYHOUND HILL

PH

Parish of St Mary and Christ Church

Hendon Methodist Church

Bus stop

Burroughs Parade

THE BURROUGHS

Bus stop

The Paddock

CHURCH E

PH

Ravensfield

Fenella

Usher Hall

EGERTON GARDENS

Church

BABINGTON ROAD

PH

What is on campus

- Dining/social interaction area
- Informal/small meeting space
- Library
- Bar - MDX House "Subject to restrictions not all outlets currenly open"
- Dining area - MDX House "Subject to restrictions"
- CDS - Printing services
- Dining/Safe seating area
- Places to buy food "Subject to restrictions not all outlets currently open"
- Fitness Pod
- Multi-faith Prayer space
- Flexible workspace (staff only)
- Cycle racks