

Presentation Session Times 2020

Session Date 1st half time 2nd half time

22/06/2020 09:20:00-12:35:00 and 13:45:00-16:10:00

2 22/06/2020 Teams 09:20:00-12:35:00 13:45:00-16:10:00

student	supervisor	2marker	
Dimoska,S.	Astolfi,A.	Parisini,T.	Solving the Combinatorial Permutation Game of Sudoku with Mixed-Integer Programming Optimisation
Ioannides,G.	Astolfi,A.	Parisini,T.	Spatiotemporal Dynamics in Recurrent Spiking Neural Networks for Optimization-based modelling of EEG signals
Berry,R.	Astolfi,A.	Parisini,T.	Max-Plus Modelling of Manufacturing Systems
Menon,P.	Astolfi,A.	Parisini,T.	A toolbox for model reduction using the Loewner matrix
Huang,G.	Jaimoukha,I.M.	Evangelou,S.A.	Failure tolerant control system design
Al-Aqqad,Z.	Jaimoukha,I.M.	Evangelou,S.A.	Robust global optimization problems in portfolio management in finance
Elia,S.	Jaimoukha,I.M.	Evangelou,S.A.	Robust global optimization problems in portfolio management in finance (2)
Grivas,D.	Scarciotti,G.	Jaimoukha,I.M.	Modeling and Control of an Underfloor Heating Systems
Benarroch,E.	Jaimoukha,I.M.	Evangelou,S.A.	Modelling of the glucose homeostasis and implementation of a Proportional Integral Derivative (PID) controller for use in an artificial pancreas
Sun,K.	Scarciotti,G.	Jaimoukha,I.M.	Stochastic Relative Degree and Output Regulation for MIMO systems

7 22/06/2020 Teams 09:20:00-12:35:00 13:45:00-15:20:00

student	supervisor	2marker	
Perumalla,A.	Gunduz,D.	Ciliberto,C.	Privacy-preserving Machine Learning
Stratton,S.	Ciliberto,C.	Gunduz,D.	Using social data as a technical indicator in stock price prediction
Serena,A.	Gunduz,D.	Ciliberto,C.	Wireless Federated Learning
Sarjanovic,M.	Goodman,D.F.M.	Ciliberto,C.	Automating "The Flavor Bible" with machine learning
Pickup,E.D.A.	Goodman,D.F.M.	Ciliberto,C.	Network visualisation
Ajose,B.D.	Goodman,D.F.M.	Ciliberto,C.	Spiking neural network simulation with the Julia language
Garcia Matachana,A.	Munoz Gonzalez,L.	Gunduz,D.	Adversarial Machine Learning on The Edge
Brito Rodriguez,G.	Gunduz,D.	Goodman,D.F.M.	Wireless Communication Scheduling with Deep Reinforcement Learning

Session	Date	1st half time	2nd half time	
12	22/06/2020	Teams	09:20:00-12:35:00	13:45:00-15:45:00
student		supervisor	2marker	
Malik,M.A.		Papavassiliou,C.	Constandinou,T.	A low cost RF/Microwave Network Analyser
Deng,H.		Constantinides,G.A	Papavassiliou,C.	StrassenNets for FPGAs
Grand,G.		Constandinou,T.	RaeisHosseini,N.	High-efficiency power management and wireless charging system design for active implantable medical devices
Varga,D.K.		Constandinou,T.	RaeisHosseini,N.	Optical synchronisation for a standalone neural recording platform
Andriopoulou,L.		RaeisHosseini,N.	Constandinou,T.	Flexible Memristor Using soft materials for neuromorphic applications
Muhammad Naim,N.A.B.		Papavassiliou,C.	Constantinides,G.A	High Bandwidth Active Inductance Emulators
Spillett,O.B.		RaeisHosseini,N.	Constandinou,T.	Flexible Memristors Using Organic Materials for Data Storage Applications
Lam,K.		Papavassiliou,C.	Constantinides,G.A	Programming and reading out Memristor Crossbars
Biggs,B.		Constantinides,G.A	Papavassiliou,C.	Transforming Julia into Digital Hardware

23/06/2020 09:20:00-11:45:00 and 13:45:00-16:10:00

1	23/06/2020	Teams	09:20:00-11:45:00	13:45:00-16:10:00
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student	supervisor	2marker	
Xia,Z.	Teng,F.	Kerrigan,E.C.	Machine-learning based approaches for scenario generation
Mansoor,R.S.	Teng,F.	Chaudhuri,B.	A Grid Connection Estimator
Huang,Z.	Teng,F.	Chaudhuri,B.	Short-term system inertia forecasting
Wong,L.J.	Pal,B.C.	Chaudhuri,B.	Methodology for voltage control interaction risk assessment in active distribution networks
Pisigan,C.A.R.	Pal,B.C.	Chaudhuri,B.	The impact of interharmonics on modern distribution protection Background and motivation
Stables,E.P.	Kerrigan,E.C.	Teng,F.	Static Optimization in the Julia Programming Language
Umeigbo,K.K.	Chaudhuri,B.	Pal,B.C.	Stability of DC Distribution Networks with Photovoltaic Generation and Electric Vehicle Charging Stations
Liu,S.	Chaudhuri,B.	Pal,B.C.	Charge/Discharge Strategy for Electric Vehicles in a DC Distribution Network

3	23/06/2020	Teams	09:20:00-12:50:00	13:45:00-13:15:00
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student	supervisor	2marker	
Woodward,N.R.	Mitcheson,P.D.	Junyent-Ferre,A.	Light weight, low power, energy metering infrastructure for sensor network management
Chan,J.R.Z.	Mitcheson,P.D.	Junyent-Ferre,A.	Shielding for air-core wireless power devices
Moniatis,D.	Junyent-Ferre,A.	Mitcheson,P.D.	Design of a battery management system and a communication system for the open source wheelchair project

4	23/06/2020	Teams	09:20:00-12:35:00	13:45:00-15:20:00
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student	supervisor	2marker	
Edun,M.	Dai,W.	Clerckx,B.	Towards Imaging EM Emissions
Shen,Z.	Dragotti,P.L.	Dai,W.	New processing and learning methods for event based video cameras
Jarisch,A.R.	Dai,W.	Clerckx,B.	Causality Analysis for Financial Networks
Fu,Z.	Dai,W.	Clerckx,B.	Estimating Origin-Destination Flows in Networks: Realistic Scenario Study
Xu,X.	Clerckx,B.	Dai,W.	Design and Evaluation of Beyond 5G Wireless Communication Systems
Yeow,E.K.J.	Dragotti,P.L.	Dai,W.	Investigating signal reconstruction and real-world applications of neuromorphic vision systems
Si,Z.W.	Clerckx,B.	Dai,W.	Design and Evaluation of Interference Management Strategies for Satellite Communication Systems
Thompson,J.	Dai,W.	Clerckx,B.	Deep Learning to Solve Inverse Problems

Session	Date	1st half time	2nd half time	
8	23/06/2020	Teams	09:20:00-12:35:00	13:45:00-15:20:00
student		supervisor	2marker	
Brega Monteiro,P.		Spence,R.	Witkowski,C.M.	Gaze-detection
Zhou,X.		Witkowski,C.M.	Spence,R.	Re-imagining the Tactile Mouse
Zou,Y.		Witkowski,C.M.	Spence,R.	Fake or Fraud?
Chen,Y.		Demiris,Y.K.	Pitt,J.V.	Visual Scene understanding and pedestrian/vehicle tracking in outdoor environments
Scaife,E.J.C.		Pitt,J.V.	Mikolajczyk,K.M.	PlatformOcean
Yu,R.		Demiris,Y.K.	Pitt,J.V.	Robot Manipulation of Shoe Laces: AI and Control
Wiederkehr,L.		Pitt,J.V.	Spence,R.	Design and Development of an Effective Wellbeing Application
Sharma,A.		Witkowski,C.M.	Spence,R.	Mobility without Vision
11	23/06/2020	Teams	09:20:00-12:35:00	13:45:00-16:10:00
student		supervisor	2marker	
Scholz,C.F.		Stott,E.	Clarke,T.J.W.	Ultra Hygienic Smart Dental Device Storage Case
Ahmed,G.		Bouganis,C.	Clarke,T.J.W.	Effects of quantisation on the vulnerability of image classifiers to black-box adversarial attacks
Gaitonde,A.A.		Clarke,T.J.W.	Stott,E.	A Responsive Web Application for Student Attendance Monitoring
Tan,Y.		Bouganis,C.	Stott,E.	Embedded Drone Vision for Detection Tasks
Luo,Z.		Bouganis,C.	Clarke,T.J.W.	Graph Neural Networks for Scene Understanding and Future-State Prediction
Alix-Brown,L.F.		Perea,E.	Stott,E.	Machine Learning to predict Customer Churn
Lua,Y.H.		Bouganis,C.	Stott,E.	Embedded Drone Vision for Autonomous Navigation
Hallam,R.C.		Clarke,T.J.W.	Bouganis,C.	RecycleHelper: A Persuasive Smartphone App for Improving Recycling Performance
Waller,J.		Clarke,T.J.W.	Stott,E.	Mercedes In-house Calibration Interface Hardware Design and Test
Raich Condeminas,J.		Bouganis,C.	Clarke,T.J.W.	Efficient Optical-flow extraction for Vision-based Drone Autonomous Navigation

24/06/2020 09:20:00-12:35:00 and 13:45:00-16:35:00

5	24/06/2020	Teams	09:20:00-12:35:00	13:45:00-16:35:00
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student	supervisor	2marker	
Shi,Y.	Stathaki,P.T.	Naylor,P.A.	Human detection in complex environment
Li,Z.	Naylor,P.A.	Mandic,D.P.	Adaptive Differential Microphone Arrays
Sy,C.K.D.	Mandic,D.P.	Naylor,P.A.	Graph Signal Processing for Financial Engineering
Hu,J.M.	Naylor,P.A.	Mandic,D.P.	Neural Beamforming
Graham,D.	Naylor,P.A.	Mandic,D.P.	Abstractive Audio-to-Audio Speech Summarisation
Zhu,N.	Naylor,P.A.	Mandic,D.P.	An Investigation of the Coherent-to-Diffuse Power Ratio and its Application to Speech Dereverberation
D'Olne,E.	Naylor,P.A.	Mandic,D.P.	Automatic Detection of Alzheimer's Disease using Speech
Yadav,A.	Mandic,D.P.	Naylor,P.A.	Hearables: Recreating standard speech from the speech recorded inside the ear-canal
Zhang,R.	Mandic,D.P.	Leung,K.K.	Deep Reinforcement Learning for Financial Applications
Ushchapovskyy,D.	Mandic,D.P.	Leung,K.K.	Risk Aware Reinforcement Learning Agents for Trading
Low,Y.H.	Leung,K.K.	Naylor,P.A.	Machine Learning to Track Cloud Computing

9	24/06/2020	Teams	09:20:00-12:35:00	13:45:00-15:20:00
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student	supervisor	2marker	
Ofluoglu,E.	Fobelets,K.	Durrani,Z.	Wireless power transfer using knitted coils
Jang,S.H.	Fobelets,K.	Durrani,Z.	Simulation of heat flow in Schottky-contact nanowires
Lau,F.Y.G.	Lucyszyn,S.	Durrani,Z.	3D Printed Quasi-optical Components
Kidd,G.	Pike,W.T.	Holmes,A.S.	Improving Seismic Detection from NASA's InSight Mission
Tangri,R.K.	Pike,W.T.	Syms,R.R.A.	Recognising the Sounds from Mars: feature identification from InSight
Zhang,C.	Holmes,A.S.	Syms,R.R.A.	Wireless and Battery-less Anemometer
Pong,Z.K.	Syms,R.R.A.	Holmes,A.S.	Image Reconstruction Analysis for Lissajous-scanned Images
Adolfsson,A.	Holmes,A.S.	Syms,R.R.A.	Energy Harvesting from Water Flow

Session	Date	1st half time	2nd half time	
Poster	24/06/2020	Teams	09:20:00-12:35:00	13:45:00-16:35:00
student	supervisor	2marker		
Muttawa,O.	Rodriguez Manzan	Papavassiliou,C.	A real-time independent and inexpensive PPG signal quality classification tool for vital sign monitoring	
Chakravorty,A.	Rodriguez Manzan	Papavassiliou,C.	Embedded controller and real-time signal processing for a Smart Portable DNA Diagnostic Platform	
Zhang,Y.	Georgiou,P.	Rodriguez Manzan	Designing CMOS Integrated Circuits for the Body Dust Project	
Biet,C.M.A.	Georgiou,P.	Rodriguez Manzan	Design and Build a Flexible NFC Patch for Wearable electrochemical Sensing	
Thirumalaikumar,S.N.	Georgiou,P.	Rodriguez Manzan	Designing a Low-Power Wearable for Flow Rate Measurement of Sweat for On-Body Physiological Monitoring	
Terranova,G.	Georgiou,P.	Rodriguez Manzan	Low-Noise Chopping Techniques for CMOS Ion-Sensitive FET arrays signals - IC Design	
Gaunt,W.J.	Georgiou,P.	Moser,N.B.G.	Design and Simulation of Time-Domain Analogue Machine Learning in CMOS	
Ng,Y.S.	Rodriguez-Villegas,	Georgiou,P.	A tool to organise children birthday parties in London	
Ramage,G.	Rodriguez-Villegas,	Georgiou,P.	Demonising techniques for cardiac signals obtained in uncontrolled real life environments	
Venkat,V.	Moser,N.B.G.	Rodriguez-Villegas,	Signal processing and applied machine learning for real-time detection of DNA	
Paul,P.	Rodriguez-Villegas,	Georgiou,P.	Mobile application design for acquisition of research data in elderly patients with chronic conditions & Design Studio: software for accessible interface design	
14	24/06/2020	Teams	09:20:00-12:35:00	13:45:00-15:45:00
student	supervisor	2marker		
Lam,Y.K.	Thomas,D.B.	Wickerson,J.	Remote Procedure Calls for High-Level Synthesis	
Pietreanu,A.	Thomas,D.B.	Wickerson,J.	An MPI interface for millions of tiny threads	
Ankers,H.A.	Wickerson,J.	Davis,J.J.	Random testing of advanced programming language features in compilers	
Mulville,E.	Wickerson,J.	Davis,J.J.	Automatic Scrabble	
Vijayaraghavan,S.	Thomas,D.B.	Wickerson,J.	Distributed recurrent neural networks	
Tang,T.H.	Wickerson,J.	Davis,J.J.	Automatically generating crossword puzzles	
Iriawan,H.	Davis,J.J.	Thomas,D.B.	Understanding Radiation-induced Effects in State-of-the-Art Embedded Processors	
Prescott,A.T.	Davis,J.J.	Thomas,D.B.	Safe Overclocking of High-level Synthesis-generated FPGA Hardware	
Jennings,J.L.	Thomas,D.B.	Wickerson,J.	Event-Driven Deep Spiking Neural Network	

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6	29/06/2020	Teams	10:00:00-13:15:00	14:00:00-17:40:00
student	supervisor	2marker		
Wu,W.	Evangelou,S.A.	Jaimoukha,I.M.		Neural Network Control for Road Vehicle Active Suspension
Larsson,L.	Gunduz,D.	Goodman,D.F.M.		Deep Learning based Wireless Video Transmission - USRP Implementation
Yu,K.K.	Kormushev,P.	Mitcheson,P.D.		Power Electronics for Energy regeneration on Robots
Udvardi,P.	Mikolajczyk,K.M.	Demiris,Y.K.		Datasheet Reconstruction
Wong,J.M.	Mikolajczyk,K.M.	Demiris,Y.K.		Tackling Mathematical Reasoning with Deep Reinforcement Learning
Hu,F.	Goodman,D.F.M.	Ciliberto,C.		Mind matching (or academic speed dating)
Hu,J.	Wickerson,J.	Davis,J.J.		Random testing of place-and-route tools
Zhelyabovskiy,S.	Junyent-Ferre,A.	Mitcheson,P.D.		Power supply with supercapacitor energy storage for the Shell Eco Marathon Car
Zhang,H.	Constandinou,T.	Constantinides,G.A		Human movement sensing using coherent UWB radar-on-chip
van Oordt,B.	Papavassiliou,C.	Constandinou,T.		Neuromorphic hardware development
Sheth,I.M.	Ciliberto,C.	Gunduz,D.		Human Activity Recognition
Krishnamra,S.	Pike,W.T.	Lucyszyn,S.		Drone on a bench
Manjunatha,R.	Stott,E.	Clarke,T.J.W.		Assistive Technology to study STEM subjects for Visually Impaired People