NEXT-AI 2026 Preliminary Schedule

Latest update: 26/02/26

Day 1 - Wednesday 8th April		
10:00 – 11.00	**Registration + Coffee**	
11:00 – 12:40	**Opening Session & UK Landscape and Funding**	
11:00 – 11:10	Welcome remarks and sponsor acknowledgement	Organisers
11:10 – 11:20	Opening Remarks	TBA
11:20 – 11:35	EPSRC Neuromorphic Strategy	Dr Tomasz Kowalczyk Portfolio Manager, EPSRC ICT
11:35 – 11:50	UK Multidisciplinary Centre for Neuromorphic Computing	Natalia Manuilovich Aston University, UK
11:50 – 12:05	NeuMat: Neuromorphic materials and Devices for Future AI hardware	Prof. Adnan Mehonic University College London, UK
12:05 - 12:20	Title TBA	Paul Larcey Innovate UK
12:20 - 12:35	Neuroware: Innovation and Knowledge Centre (IKC)	Prof. Adnan Mehonic University College London, UK
12:40 – 13:30	**Lunch Break**	
13:30 – 15:00	**NEXT Optoelectronics and Photonics I**	Chair: Dr Javier Porte Parera, Univ. of Strathclyde, UK
13:30 - 14:00	Keynote: Optical Neural Networks based on photovoltaic platforms	Prof. Andrea Di Falco St Andrews University, UK
14:00 – 14:20	From training readout to input encoding: leveraging telecom photonics for optical neuromorphic computing	Dr Egor Manuylovich Aston University, UK
14:20 – 14:40	Novel fibre systems for neuromorphic computing	Dr Siddharth Sivankutty, CNRS (Uni of Lille)
14:40 – 15:00	Principles and metrics of photonic learning machines	Dr Mathilde Hary, CNRS FEMTO-ST, France
15:00 – 15:30	**Coffee Break**	
15:30 – 17:20	**NEXT-AI in the Real World I**	Chair: Dr Giulia Marcucci, LumiAIres Ltd
15:30 – 16:00	Keynote: Analog Optical Computer for Sustainable AI and Beyond	Dr Francesca Parmigiani Microsoft Research Cambridge, UK
16:00 – 16:20	Title TBA	Speaker TBA, Hamamatsu
16:20 – 16:40	Title TBA	Dr Sing-Sung Kim Synopsis
16:40 - 17:20	Discussion panel: Optica x NEXT-AI Startups	Chair: Dr Jon Pugh, Optica
17:30 – 19:00	**Poster Session / Demos / Networking (details to be announced)**	
19:00 – 21:00	**Conference Dinner**	

Day 2 - Thursday 9th April		
08:00 – 09:00	**Registration + Coffee**	

09:00 – 11:00	**NEXT-Generation Platforms: Biological Systems**	Chair: Dr Juan Totero Gongora, Loughborough University, UK
09:00 – 09:30	Keynote: Engineering living brain circuits	Prof. Paul Roach Loughborough University, UK
09:30 – 09:50	Engineering Neural Circuitry to model biological neuronal networks	Dr Eric Hill Loughborough University, UK
09:50 – 10:10	Brain-inspired complexity metrics for photonic neuromorphic computing	Dr Oliver Neill University of Glasgow, UK
10:10 – 10:30	Protobrain from thermal proteins	Prof. Andrew Adamatzky and Dr Panagiotis Mougkogiannis UWE Bristol, UK
10:30 – 11:00	**Coffee Break**	
11:00 – 12:30	**NEXT Algorithms and Co-Design I**	Chair: Dr Shirin Dora, Loughborough University, UK
11:00 – 11:30	Keynote: Timing-Native Address Selection for Spiking and Neuromorphic Hardware	Prof. Natalia Berloff University of Cambridge, UK
11:30 – 11:50	Hardware Fault Detection and Tolerance using Spiked-based Approaches	Prof. Jim Harkin Ulster University, UK
11:50 – 12:10	Co-designing programmable accelerators for event-based training and inference	Dr James Knight University of Sussex, UK
12:10 – 12:30	Title TBA	Prof. Eleni Vasilaki University of Sheffield, UK
12:30 – 13:30	**Lunch Break (with Poster session)**	
13:30 – 15:00	**NEXT Electronics and Memristors I**	Chair: Prof. Sergey Saveliev, Loughborough University, UK
13:30 – 14:00	Keynote: Edge of Chaos and Entropy Production Minimization as Keys to Neuromorphic Computing	Prof. Stan Williams Texas A&M, USA (online)
14:00 – 14:20	Title TBA	Prof. Shashi Paul De Montfort University, UK
14:20 – 14:40	Materials design for multi-level resistive switching devices	Dr Markus Hellenbrand University of Cambridge, UK
14:40 – 15:00	Learning Nonlinear Heterogeneity in Physical Kolmogorov-Arnold Networks	Dr Jack C. Gartside Imperial College, UK
15:00 – 15:30	**Coffee Break**	
15:30 – 17:00	**NEXT-AI in the Real World II**	Chair: Dr Giulia Marcucci, LumiAIres Ltd
15:30 – 16:00	Keynote: Neuromorphic technology for low power edge AI inference	Laurent Hili European Space Agency, NL
16:00 – 16:20	Co-Design Across the Stack for Efficient ML Inference	Alessandro Pierro LMU Munich, Germany
16:20 – 16:40	It's real - Photonic processing in datacenter-implementations, use cases, results	Andreas Abt SVP R&D, Q.ANT
16:40 – 17:20	Discussion panel: Chips, Clusters & Capital – Building Europe's NEXT-AI Ecosystems	Chair: Ofer Shayo, London Ignite
17:30 – 19:00	**Poster Session / Demos / Networking** **ECR Activities (details to be announced)**	

Day 3 - Friday 10th April		
08:00 – 09:00	**Registration + Coffee**	
09:00 – 10:30	**NEXT-Generation Platforms: Quantum AI**	Chair: Dr Juan Totero Gongora Loughborough University, UK
09:00 – 09:30	Keynote: Applications of photonic quantum computers in AI	Dr William Clements ORCA Computing
09:30 – 09:50	Dynamics as Computation	Dr Gerard McCaul Loughborough University, UK
09:50 – 10:10	Title TBA	Dr Jack Brennan University of Glasgow
10:10 – 10:30	Title TBA	TBA
10:30 – 11:00	**Coffee Break**	
11:00 – 12:30	**NEXT Algorithms and Co-Design II**	Chair: Shirin Dora, Loughborough University
11:00 – 11:30	Keynote: Perspectives on and beyond Reservoir Computing	Prof. Claudio Gallicchio University of Pisa, Italy
11:30 – 11:50	SteganoSNN: SNN-Based Audio-in-Image Steganography with Encryption	Dr Pedro Machado Nottingham Trent University, UK
11:50 – 12:10	Scalable architectures for neuromorphic AI	Dr Anand Subramoney Royal Holloway, Univ. of London, UK
12:10 – 12:30	Neuromorphic multimodal sensor fusion	Dr Luca Peres, University of Manchester, UK
12:30 – 13:30	**Lunch Break**	
13:30 – 15:00	**NEXT Electronics and Memristors II**	Chair: Sergey Saveliev, Loughborough Uni
13:30 – 14:00	Keynote: Title TBA	Prof. Adnan Mehonic University College London, UK
14:00 – 14:20	Title TBA	Speaker TBA
14:20 – 14:40	Nanoporous oxide memristors for time series prediction via physical reservoir computing	Dr Pavel Borisov Loughborough University, UK
14:40 – 15:00	Optical Memristors for Neuromorphic Computing: From Light-Sensitive Materials to Ultrafast Photonic Chips	Prof. Neil Kemp University of Nottingham, UK
15:00 – 15:30	**Coffee Break**	
15:30 – 17:00	**NEXT Optoelectronics and Photonics II**	Chair: Javier Porte Parera, Uni of Strathclyde
15:30 – 16:00	Keynote: Novel Materials and Nanoarchitectures for Neuromorphic Computing	Prof. Dimitra Georgiadou Uni of Southampton, UK
16:00 – 16:20	Artificial Photonic Spiking Neurons for SNN platforms	Dr Joshua Robertson University of Strathclyde, UK
16:20 – 16:40	Title TBA	Dr Nikolaos Farmakidis University of Oxford, UK
16:40 – 17:00	Title TBA	Prof. Daniel Brunner CNRS FEMTO-ST, France
17:00	**Event Closure**	

NEXT-AI

Loughborough University, 8-10 April 2026

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