

#### ISRC-CN<sup>3</sup>: Collaborate Ultra Web Links for Online Attendees

Each lecture, talk or lab has its unique web link.

With reliable high-speed internet access, please join the appropriate web link at the appropriate time as shown below. Please note that the time is in **UK time**. (You may convert the time to the corresponding time at your location e.g. using <a href="https://www.timeanddate.com/worldclock/converter.html">https://www.timeanddate.com/worldclock/converter.html</a>)

If you are unable to join the live stream, recorded video clips will be either email to you at the end of each day, or it may be uploaded to GitHub.

Please contact me (k.wong-lin@ulster.ac.uk) if there is any issue.

# Day 1

## **Lectures & talks**

09:00-09:30

Welcome and opening speech (KongFatt Wong-Lin, Liam Maguire & Damien Covle)

https://eu.bbcollab.com/guest/a41a36323adc42c6b64759a3acd6c4f2

09:30-12:00

Introductory neuroscience (Elaine Murray)

https://eu.bbcollab.com/guest/123c50e9bbc8431ebde549e0b7d9ffd2

13:00-15:30

Cognitive neural systems and behaviour (Simon Kelly)

https://eu.bbcollab.com/guest/070c5e94204d4c46b90bd8ac4182cace

15:45-18:00

Mathematics for neuroscience - An overview (Áine Byrne)

https://eu.bbcollab.com/guest/c2f67f24b5d74690bb9d8dfaec1db666

#### Lab

19:00-21:30

https://eu.bbcollab.com/guest/fab129b049894664ae8183ed2127c77b



# Day 2

#### Lectures & talks

09:00-11:00

Computational modelling of plasticity and learning in brains (Cian O'Donnell) https://eu.bbcollab.com/guest/363f345b4c1746779b959783631e992a

11:15-13:00

Glia cells – key to autonomous learning in Al? (Liam McDaid and John Wade) https://eu.bbcollab.com/guest/04f28f59c76d41028a24dbeb992f257e

14:00-16:00

Neural network dynamics and modelling of cognitive functions (KongFatt Wong-Lin

https://eu.bbcollab.com/guest/dce7c4396d3c450fb9ec6da10435b50e

16:15-18:00

An introduction to model-free and model-based reinforcement learning and their application to cognitive neuroscience (Mehdi Khamassi) https://eu.bbcollab.com/guest/9c26f7b49cb243c8b5f66a25273a0a98

#### Lab

19:00-21:30

https://eu.bbcollab.com/guest/2bf5e054e4a144c3b4e8bcda2d5900b7

## Day 3

## **Lectures & talks**

09:00-11:00

Investigating time series neural data – experimental design and processing (Saugat Bhattacharyva)

https://eu.bbcollab.com/guest/d1642a67e75941a8a876759c2d08c95a

11:15-13:00

Non-invasive brain-computer interfaces – enhancing applicability using computational intelligence and technological advances (Girijesh Prasad) <a href="https://eu.bbcollab.com/guest/573c9b62db64457f8b819fa739eb8257">https://eu.bbcollab.com/guest/573c9b62db64457f8b819fa739eb8257</a>

14:00-16:00

Introduction to the statistical methodology for brain connectivity analysis (Jose Sanchez Bornot)

https://eu.bbcollab.com/guest/e681c24d9cd74b3097d94ec50ddeec8a



16:15-18:00

Decoding mental imagery from electroencephalography (EEG) and applications of Al-enabled wearable neurotechnology for communication and rehabilitation (Damien Coyle)

https://eu.bbcollab.com/guest/5bca9894034647c0b4059260c0ef7ceb

### Lab

19:00-21:30

https://eu.bbcollab.com/guest/ddcb77d62b4147ce90ed0ec2725f4834

# Day 4

#### **Lectures & talks**

09:00-11:00

Neuro-inspired computation: spiking neural networks (Nikola Kasabov) <a href="https://eu.bbcollab.com/guest/5d1269a3df124f0ebb5a6daf964b0add">https://eu.bbcollab.com/guest/5d1269a3df124f0ebb5a6daf964b0add</a>

11:15-13:00

Meta-cognition and learning from high-dimensional streaming data (Savitha Ramasamy)

https://eu.bbcollab.com/guest/1303aa0a7e024f05ab72c31e070093d7

14:00-16:00

Building reliable and secure embedded systems with neuromorphic computing (Jim Harkin)

https://eu.bbcollab.com/guest/9ce767bcdfba49e7bc9579e3312b697b

16:15-17:15

Towards responsible brain research and applications (Arleen Salles) https://eu.bbcollab.com/guest/195b3871a72247d09e28d86b6255fcf7

### Lab

17:30-18:30

https://eu.bbcollab.com/guest/d4ac198b0f2940d9800275f766dda30c



## Day 5

## Lectures, talks and pitches

10:15-11:15

Neuromorphic vision (Shane Harrigan)

https://eu.bbcollab.com/guest/f89d622f7b6647d0be71da4ae5d98eaa

11:45-12:30

Understanding the benefits of knowledge transfer partnerships for businesses, academics & graduates (Amanda Fullerton) (11:45-12:05); &

Translating Al-enabled neurotechnology research & experience of developing an award winning neurotech startup (Damien Coyle) (12:05-12:25); Q&A (12:25-12:30)

https://eu.bbcollab.com/guest/081ce037953e4aa99cb6dd5b46224b61

13:30-15:45

Attendees's project pitches

https://eu.bbcollab.com/guest/3657c25c0eef42d6b0490b056afda353

16:00-17:00

Understanding behavior and the brain from the perspective of a dynamical theory of coordination (J.A. Scott Kelso)

https://eu.bbcollab.com/guest/6b0eab952d244fc8989b2ee0999e2734

17:15

Closing remark

https://eu.bbcollab.com/guest/5ff2454ec3264ce685947c52c931391b