



Human Brain Project
Education Programme

3RD HBP CURRICULUM WORKSHOP SERIES
MODERN TRENDS IN COGNITIVE
ARCHITECTURES AND SYSTEMS:
FROM THEORY TO IMPLEMENTATION IN
NATURAL AND ARTIFICIAL AGENTS

11-13 DECEMBER 2019
UNIVERSITY OF GLASGOW,
UNITED KINGDOM

SCIENTIFIC
PROGRAMME



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WORKSHOP INFORMATION

This workshop welcomes all scientists who want to understand and implement cognitive systems. The 3-day event brings together recent developments in neuroscience and computational techniques and provides an overview of the latest advances in understanding how the brain works, computes and generates behaviour.

Scientific Chairs:

Lars Muckli | University of Glasgow

Tony Prescott | University of Sheffield

Organisers:

Sylvia Aßlaber | Medical University Innsbruck

Judith Kathrein | Medical University Innsbruck

Alejandro Jiménez-Rodríguez | University of Sheffield

Contact:

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Further information:

<http://bit.ly/HBPCogSys19>



Human Brain Project



WEDNESDAY 11 DECEMBER 2019

Venue: School of Psychology, 62 Hillhead Street, Glasgow

- 11:00 - 12:00 **Exam (not obligatory)**
- 12:00 - 13:00 **Registration**
- 13:00 - 13:30 **Welcome & introduction**
Lars Muckli | University of Glasgow
& Tony Prescott | University of Sheffield
- 13:30 - 14:30 **Encoding and decoding models of brain activity**
Bertrand Thirion | Inria Paris
- 14:30 - 15:30 **Modelling the emergence of social behaviour**
Stuart Wilson | University of Sheffield
- 15:30 - 16:00 **Coffee break**
- 16:00 - 17:00 **A neurocognitive perspective on human-robot interaction**
Ruud Hortensius | University of Glasgow
- 17:00 - 18:00 **Layered cognitive architectures in animals and robots**
Tony Prescott | University of Sheffield
- 18:00 **Get-together**

THURSDAY 12 DECEMBER 2019

Venue: Boyd Orr Building, 120 University Avenue, Glasgow

- 09:00 - 11:00 **Tutorial 1: MiRo Robot**
Tony Prescott, Alejandro Jiménez-Rodríguez &
David Buxton | University of Sheffield
- 11:00 - 11:30 **Coffee break**
- 11:30 - 12:30 **High-resolution brain imaging for computational
mechanisms of prediction**
Lars Muckli | University of Glasgow
- 12:30 - 13:30 **Lunch break**
- 13:30 - 15:30 **Tutorial 2: Brain imaging**
Yulia Lazarova & Lars Muckli | University of Glasgow
- 15:30 - 16:00 **Coffee break**
- 16:00 - 17:10 **Student presentations**
- 17:10 - 17:20 **Venue change**
Glasgow University Union, 32 University Avenue, Glasgow
- 17:20 - 18:10 **Poster session**
- 18:10 **Social evening**

FRIDAY 13 DECEMBER 2019

Venue: School of Psychology, 62 Hillhead Street, Glasgow

09:00 - 11:00 Lab visits

11:00 - 11:30 Coffee break

11:30 - 12:30 Building a biologically inspired embodied large-scale architecture of visuo-motor integration predicting human saliency performance
Rainer Goebel | University of Maastricht

12:30 - 13:30 Lunch break

13:30 - 14:30 Simulating psychological theories of emotion and its impact on behaviour
Stacy Marsella | University of Glasgow

14:30 - 15:30 Designing social signals for artificial agents using psychological science
Rachael Jack | University of Glasgow

15:30 - 16:00 Coffee break

16:00 - 17:30 Panel discussion on “Modern trends in cognitive architectures: State of the art and challenges”

NOTES





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humanbrainproject.eu/education