EPFL

BIO-693(4)   **State-of-the-Art in Neuroscience IV (2018)**

Gerstner Wulfram, Herzog Michael, Various lecturers

Cursus	Sem.	Type
Neuroscience		Obl.

Language of teaching	English
Credits	1
Session	
Exam	Project report
Workload	30h
Hours	**19**
Courses	19
Number of positions	**60**

Frequency

Every year

Remark

From 16th to 17th November 2017

Summary

The goal of the course is to increase awareness and knowledge of the diverse aspects of research in decision making and reinforcement learning

Content

Each course will address a specific and important, rapidly developing field such as reward-guided learning, multi-dimensional decision making, neural plasticity, neural correlates of decision making, as well as cognitive and computational neuroscience. Students will be introduced, by experts in the field, to fundamental concepts and recent findings related to these fields with a particular emphasis to neural implementation of learning models. During this course, the students will aquire a broad knowledge about neural and computational mechanisms of learning and decision making. Students will also be exposed to novel approaches and methodologies in both human learning systems. Students will be evaluated by an assignment related to recommended articles and speakers lectures.

Learning and decision making are essential to human behaviour. Technological and conceptual advances are now providing exciting new perspectives using multidisciplinary approaches such as EEG, fMRI and computational models to understand the process. In this meeting, we will discuss recent progress in our understanding of neural circuits focusing on plasticity, neural correlates and computational models of learning.

The course will take place during 2 days. (Detail program to be decided…)

Keywords

learning, decision making, neural correlates, computational modelling

Assessment methods

Written

Resources

  Websites

  • http://bmisymposia.epfl.ch/2017winter/index.php