

COURSE DETAIL

BRAIN COMPUTER INTERFACING - FROM NEURONS TO DATA

Country

Germany

Host Institution

Technical University Berlin

Program(s)

Technical University Berlin

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Psychology Computer Science Biological Sciences

UCEAP Course Number

137

UCEAP Course Suffix**UCEAP Official Title**

BRAIN COMPUTER INTERFACING - FROM NEURONS TO DATA

UCEAP Transcript Title

BRAIN COMP INTRFACG

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

The technological and physical basics of Brain-Computer Interfacing will be elaborated. It covers the path from the (electrical) activity of single neurons and networks via the volume conduction of the human head. At the end of the class, students will know the essential physical background of Brain-Computer Interfacing (BCI). They will understand the pathway from the activity of single neurons to the signal of the electroencephalogram (EEG). They will be capable of programming simulations of the electrical properties of the human head as well as simple neural and neural network models.

Language(s) of Instruction

English

Host Institution Course Number

3435 L 505

Host Institution Course Title

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Host Institution Course Details

<https://moseskonto.tu-berlin.de/moses/modultransfersystem/bolognamodule/beschre...>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Institut für Softwaretechnik und Theoretische Informatik

Course Last Reviewed

2022-2023

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