

## 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

BRAIN COMPUTER INTERFACING - FROM NEURONS TO DATA

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Institut für Softwaretechnik und Theoretische Informatik

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