## **Track 1: Neural Interfaces**

## Neuroelectronics (Prof. Wolfrum)

Electrode Electrolyte Interfaces (Prof. Wolfrum)

Psychoacoustics and Audiological Applications (Prof. Seeber)

Design, Fabrication and Test of Medical Implants (Prof. Burgkart)

Introduction to Clinical Neurology for Neuroengineers (Prof. Ploner Prof. Hemmer)

Human-Centered Neuroengineering: Cybathlon (Prof. Cheng)

Human-Centered Neuroengineering: Neurorehabilitation (Prof. Cheng)

Making Neuro-Technologies for Society (Prof. Maasen)

Human Robotics (Prof. Franklin)

[B] Machine Learning (multiple course offers: Prof. Lee, Prof. Heckel, Prof. Utschick, Prof. Günnemann)

[B] Neuroprosthetics (Prof. Hemmert, Prof. Piazza)

[B] Robotics (Prof. Burschka) (and multiple course offers by Knoll/ Haddadin)

Track 2: Brain-Inspired AI

Brain, Mind and Cognition (Prof. Diepold)

Cognitive Neuroscience (PD Fenzl, Prof. Luksch et al.)

Cognitive Systems (Prof. Knoll)

Biologically-Inspired Learning (Prof. Cheng)

Humanoid Robotic Systems (Prof. Cheng)

Reinforcement Learning for Robotics (Prof. Althoff / Prof. Lee)

[B] Introduction to Deep Learning (Prof. Leal Taixe & Prof. Nießner)

[B] Machine Learning (multiple course offers: Prof. Lee, Prof. Heckel, Prof. Utschick, Prof. Günnemann)

[B] Techniques in Artificial Intelligence (Prof. Althoff)

[B] Robot Motion Planning (Prof. Burschka) (and multiple course offers by Knoll/ Haddadin)

## **Track 3: Computational Neuroengineering**

Computational Mechanisms of Learning (Prof. Franklin)

Computational Neuroscience: A Lecture Series from Models to Applications (Prof. Seeber, Prof. Luksch, Prof. Glasauer)

Information Retrieval in High-Dimensional Data (Prof. Kleinsteuber)

Biosignal Processing and Modelling (Prof. Cheng)

Systems Theory of the Senses (Prof. Hemmert, German only, English paused)

Neural Circuits and Behavior (Prof. Grunwald)

[B] Machine Learning (multiple course offers: Prof. Lee, Prof. Heckel, Prof. Utschick, Prof. Günnemann)

[B] Introduction to Deep Learning (Prof. Leal-Taixe & Prof. Nießner)

[B] Information Theory (Prof. Kramer)

As of March 2023

Add-In Courses: Entrepreneurial Neuroengineering

Think.Make.Start (Prof. Zimmermann)

Medinnovate Lab Course (Prof. Navab)

Technology Entrepreneurship Lab (UnternehmerTUM)

[B] Entrepreneurship (Prof. Breugst)

[B] Entrepreneurship and Management in Health Care (Prof. Königstorfer)

[B] Business Plan – Basic Course (Heyde)

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