10. – 14. 10. 2022
Project-based learning
(5 ETCS)

New Technologies in Neurorehabilitation and Motor Learning

Ready to work on new solutions using innovative technologies?

→ **Get inspired** by speakers and students from different disciplines

→ **Listen to** the perspectives of experts from science and industry

Content:
Digital technologies such as virtual reality, machine learning and robotics are perceived as highly promising tools to facilitate movement training and therapy. Health professionals and developers, as well as patients and users need to collaborate on further developing these methods.

This is a multidisciplinary course, where students from the health sector will interact with students from technical disciplines to develop a project which is either the proposal of a solution to a problem or a physical prototype.

Program:

- Lectures of international experts, scientists and professionals from informatics, electronical engineering, movement science and neurorehabilitation
- Theoretic insight into cognitive functions and learning principles addressed by prostheses and VR technologies
- **Excursion**: Talk to patients and therapists and learn about best practice examples
- Work in an interdisciplinary team on a solution to a practical problem
- Interact with researchers, representants from industry, therapists and users during the development of your project

ROBOTICS
Virtual reality
Clinical assessment
Neuroscience
Neurorehabilitation
Embodiment
motor learning
prosthesis
Surgical techniques
SERIOUS GAMES

Schedule: one week before lecture start!

10 – 14 OCT Project week lectures, workshops, excursion	Project work in small group self organized	**21 OCT** Follow-up meeting	Project work in small group self organized	**11 NOV** Final presentation

We invite advanced students to apply for participation by sending an email with the following documents to:
- nhcr-applications@mailnavab.informatik.tu-muenchen.de
- Study program you are enrolled in subject line of the email
- Exposé: Outline of motivation and previous experiences (half page)
- Transcript of records

Please find further information in the module description:

module SG860023

Organizers:
Prof. Dr. Joachim Hermsdörfer, Human Movement Science
Prof. Dr. Cristina Piazza, Healthcare and Rehabilitation Robotics
Prof. Dr. Gudrun Klinker , Augmented Reality

Venue:
TUM Campus in Olympiapark
TUM Campus Garching