Vice-Chancellor’s PhD Scholarships

**Multimodal approaches to facial rehabilitation and signalling, using virtual reality, haptics and biofeedback.**

## School of Computing and Digital Media and School of Human Sciences

The aim is to research a portable hands-free physiotherapy experience to support facial muscle rehabilitation and an accurate, inclusive muscle movement sensing system for emotional expression. The project will explore how different sensors and sensory stimuli (visual, tactile and acoustic) impact the user’s ability to use different systems and flex specific muscles, as well as affect engagement with physiotherapy and multiuser virtual activities. Instant and reflexive facial response could improve communication and sense of presence in VR.

This project (a collaboration across Schools of Human Sciences and Computing and Digital Media) would suit someone with a good Hons degree or MSc in a relevant computing discipline. Essential skills include visual programming in C++ / C#, real-time signal processing and willingness to collaborate with potential users to explore design challenges. Experience of 3D programming in games, working in VR, knowledge of computer vision techniques and networking are also welcome.

For informal enquires about the project please contact: Cassandra Terry ([c.terry@londonmet.ac.uk](mailto:c.terry@londonmet.ac.uk)) or Fiona French ([f.french@londonmet.ac.uk](mailto:f.french@londonmet.ac.uk)).