Department	School of Computing
Supervisors	Kia Dashtipour
Project Title	**Multimodal Sentiment Analysis in Mental healthcare monitoring**

PROJECT DESCRIPTION

Multimodal sentiment analysis in mental health refers to the process of using multiple sources of information, such as text, images, audio, and video, to analyse and understand the emotional state of an individual. This approach is used in mental health to better understand patients' emotions and sentiments, as they relate to their mental health and well-being.

For example, multimodal sentiment analysis can be used to analyse text written by a patient, such as a journal or social media posts, to gain insights into their emotions and thoughts. It can also use images, such as facial expressions or body language, to understand the patient's emotional state. Additionally, audio recordings of a patient's speech, such as in therapy sessions, can be used to analyse tone of voice and other acoustic features that may provide insights into their emotional state.

The goal of multimodal sentiment analysis in mental health is to provide mental health professionals with a more comprehensive understanding of their patients' mental health and to improve diagnosis and treatment outcomes. By combining multiple sources of information, this approach provides a more nuanced and complete understanding of an individual's emotions and well-being.

It's important to note that multimodal sentiment analysis is still an evolving field and there are limitations to the accuracy of the analysis. Further research is needed to improve the performance, privacy-preserving, and reliability of multimodal sentiment analysis in mental health.

Academic qualifications
A first degree (at least a 2.1) ideally in Computing with a good fundamental knowledge of Machine learning.

English language requirement
IELTS score must be at least 6.5 (with not less than 6.0 in each of the four components). Other, equivalent qualifications will be accepted. [Full details of the University's policy](#) are available online.

Essential attributes:
- Proficiency in programming languages: Experience with programming languages such as Python is highly recommended; experience with deep learning frameworks such as TensorFlow, PyTorch, or Keras is also desirable
- Competent in Mathematics
- Knowledge of machine-learning techniques: Familiarity with supervised and unsupervised learning methods such as classification, regression, clustering, dimensionality reduction, reinforcement learning, and Natural Language Processing is necessary
- Good written and oral communication skills
- Strong motivation, with evidence of independent research skills relevant to the project
- Good time management

Enquiries	For informal enquiries about this PhD project, please contact Dr Kia Dashtipour at k.dashtipour@napier.ac.uk
Web page	https://www.napier.ac.uk/research-and-innovation/research-degrees/application-process