PhD and Masters Projects in Engineering using immersive modelling to drive cardiovascular surgery

Cardiovascular disease remains the single largest killer globally. The optimisation of clinical intervention and thus higher treatment success is significantly effected by assisting imaging technology, demanding innovation to enhance communication and understanding.

This PhD will explore how immersive technologies can enable a transition to more efficient medical imaging capabilities towards live and 3D visualisation and interaction during surgical cardiovascular procedures. The project will bring together leading experts from creative technologies, engineering and medicine as supervisory and advisory team for the candidate.

This new interdisciplinary PhD is an excellent opportunity for a postgraduate student to pursue world-leading and novel research, a range of different career paths, and a stimulating intellectual life.

The candidate should have a strong programming background and experience with immersive technologies. Ideally they have an understanding of vascular mechanics but this is not essential. Strong problem-solving skills are required and the interest in and willingness to learn about cardiovascular physiology is important. Previous research experience is highly desired.

You will be part of an international, dynamic and thriving team across New Zealand and Australia, which values collaboration, inclusivity and excellence. Weekly group and individual meetings will allow you to excel in your work. For more details see www.svmgroup.org and www.coronaryatlas.org.