**Biomedical Engineering Summer Research Module**

**Project Proposal**

**Project Name:** Trans-thoracic echocardiography using a robotic arm  
**Supervisor:** Kawal Rhode  
**Summary:** Cardiac ultrasound imaging (echocardiography) is a low-cost and safe option for investigating heart disease. The demand for this is continually increasing and the availability of the skilled operators (sonographers) is limited. We have developed a robotic ultrasound system at King’s College London to investigate the feasibility of this technology for echocardiography. The aim of the work is to assess the robot’s performance while scanning healthy volunteers in terms of usability, remote control, autonomous operation, safety, reliability and patient perception.