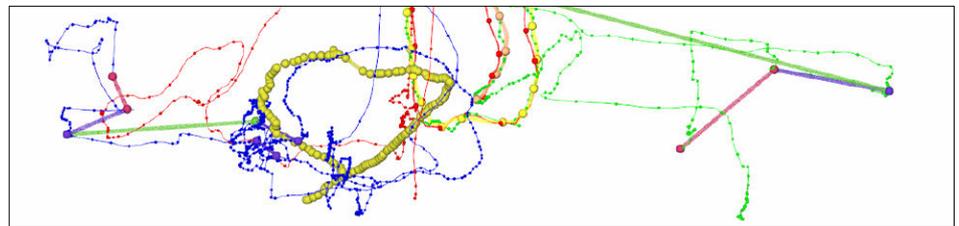
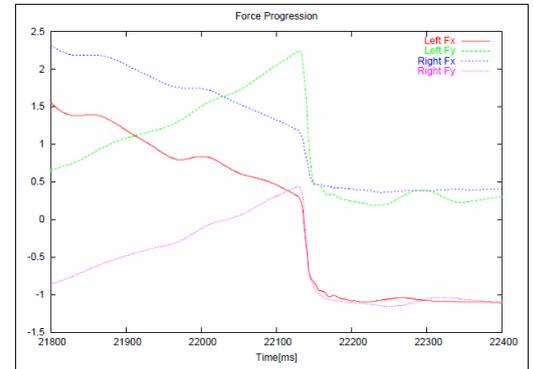
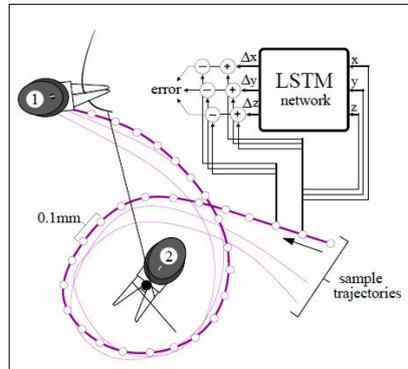
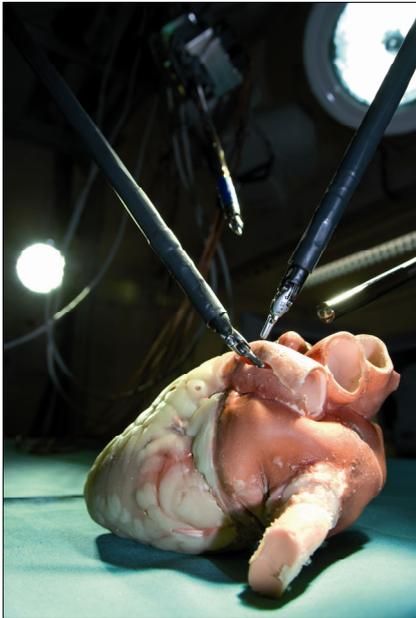


Bachelor / Master / Diploma Thesis: Pattern Recognition For Medical Workflow Analysis

Keywords: Pattern Recognition, Machine Learning, Signal Processing, Neuronal Networks, Medical Robotics



Description: We have developed a robotic system for minimally invasive surgery. The trajectories of the robots can be saved to a database. These pre-recorded data shall be compared on-line with the current input commands of a user.

Different approaches from pattern recognition, neuronal networks and signal processing shall be compared in order to enable an **automated event detection**.

The project will be implemented in close cooperation with the German Heart Center, and therefore most parts of the work will be carried out at the Inner City Campus (Arcisstr. 21).

Prerequisites: Prospective candidates should have knowledge in C++. Basic knowledge in databases (mysql) and machine learning is advantageous

Application: please contact Christoph Staub (staub@in.tum.de) to discuss your designated topic.