

Structure and Control Optimisation for Compliant Micro-motion Manipulator

Mr. Daniel Handley

This current research is aimed to design a new micromanipulation system to provide micro/nano motion for such as performing intracytoplasmic sperm injection. This is a procedure used in invitro-fertilisation where a human egg is injected with sperm. This project uses piezoelectric actuators and a novel compliant mechanism in order to achieve ultra fine-motion. This current work is focused on the field of compliant mechanism research, and involves study of a particular topology of mechanism that provides 3 planar degrees of freedom (DOF).