Title: *In Vitro* Muscle Response to Electrical Stimulation

Reference: MUSCLE

Position Availability: 1 Student

Project Description:

Understanding of how muscles function and how they respond to electrical stimulus. Experiments will be conducted to determine *in vitro* (i.e., outside of the body, in lab conditions) muscle response to electrical signals of various parameter values such as voltage level, frequency and pulse duration. Muscles will be controlled in a closed-loop feedback control system. Correlations will be derived based on the experimental results.

Work Description:

- Learning of muscle physiology.
- Literature review on *in vitro* muscle experiments.
- Setting up of experimental system.
- Carrying out the experiments.
- Derivation of correlations.

Required Qualifications and Skills:

- Certificate of Experimental Animal Usage (Deney Hayvanları Kullanım Sertifikası)
- An Ability to learn by oneself.
- Ability to conduct experiments with high degree of care.