



FACULTY MENTOR

Hanh-Phuc Le

PROJECT TITLE

Power Converter for Soft Robots

PROJECT DESCRIPTION

Description: Soft robots have recently received a lot of attention from academic research and industry because of their promise for fundamentally new and transformative methods for humans to interact with machines; for example, drastically different lines of soft prostheses, medical devices, and autonomous robotic devices. A key challenge in adopting these soft robots in practical applications lies in the electronics to support them.

In this project, we will focus on a high-voltage DC-DC converter to power actuators of an example soft robot. The project will include design and implementation of the converter on printed circuit board (PCB).

Students will also be exposed to other projects in the area of integrated/miniaturized power electronics in the iPower3Es group.

INTERNS NEEDED

1 BS and 1 MS

PREREQUISITES

Required Qualifications:

1. Student has taken ECE 102
2. Students that have taken electronics class is a plus