Title: Designing and Building a Cooler Using a Peltier Module

Position Ref: COOLER

Position Availability: 2 students

Project Description:
In this project, a small-size refrigerator using a thermoelectric cooler (TEC) will be designed and built. The project involves a careful structural design with insulation materials and a thermal design of two heat exchangers with a Peltier module. After completion of building it, its performance will be measured.

Work Description:
- Understanding a Peltier module
- A structural design with insulation materials
- A thermal design with two heat sinks
- Working at a machine shop
- Designing and building a thermostat
- Measuring the performance of the cooler
- Writing a report

Required Qualifications and Skills:
- Basic knowledge on thermodynamics and heat transfer
- Working at a machine shop
- Academic research and report writing skills