MONASH
ENGINEERING

MONASH University

# Faculty of Engineering
# Summer Research Program 2022-2023

Project Title: Functional molecular materials for Low Energy Electronics

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## Objective

The main aim of this project is to prepare and characterize thin films of molecular magnetic materials.

## Project Details

Information technology (IT) currently consumes ~8% of total global electricity, and this value is expected to double every 10 years. There is a pressing challenge to develop high performance, low energy electronic devices to mitigate the effects of climate change. Key to developing new low energy electronic devices is the design and development of new materials. Molecular magnets are a promising material system to meet this challenge, however in order to realize electronic devices, thin film growth is required. Currently these materials have not been prepared or studied extensively in thin films. This project aims to prepare and characterize the magnetic and electrical properties of these films. It will involve thin film deposition using thermal evaporation, and characterization including work performed in the Melbourne Centre for Nanofabrication.

## Prerequisites

Not applicable

## Additional Information

Applicants may be required to attend an interview.

***Submit as a word document - no more than one page long.***