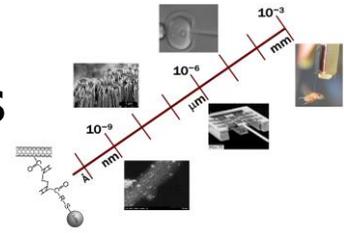


# Undergraduate Research Topics



**Lab:** Advanced Micro and Nanosystems Lab

<http://amnl.mie.utoronto.ca>

**Year:** 2020

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**AMNL accepts strong undergraduate students from Engineering Science, Mechanical Engineering, Electrical and Computer Engineering, Computer Science, and Biomedical Engineering.**

1. **Topic:** Robotic needle insertion for robotic surgery

**Number of Students:** 2 (CS/ECE/EngSci/MIE)

2. **Topic:** Robotic guidewire control

**Number of Students:** 2 (ECE/EngSci/CS/MIE)

3. **Topic:** Machine learning of cell images

**Number of Students:** 2 (CS/ECE/EngSci/MIE)

4. **Topic:** Circuit development for robotic control

**Number of Students:** 2 (ECE/EngSci/MIE)

5. **Topic:** Mechatronic instrumentation for lab automation

**Number of Students:** 2 (MIE/ECE/EngSci)

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Prof. Sun is on the faculty of the following departments or institutes:

- Mechanical and Industrial Engineering
- Institute of Biomedical Engineering
- Electrical and Computer Engineering
- Computer Science
- UofT Robotics Institutes
- Vector Institute