

# Precision Fiber Optic Devices (PFOD) Laboratory

## Research Areas

### Fiber Optic Sensors

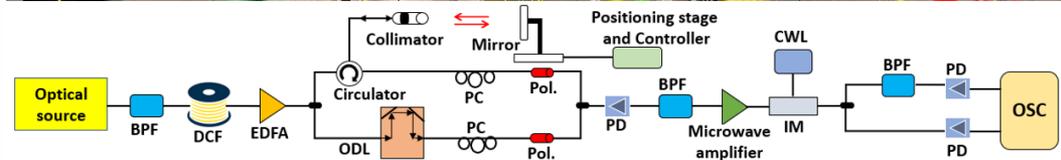
- Fiber optics sensors such as gas, acoustic, and photoacoustic sensors
- Ultrafast spectroscopy in NIR and mid-IR
- Nanometer motion detection and pattern recognition
- Photoacoustic gas and chemical sensors
- Room temperature magnetic field sensors

### NIR and MIR Microwave Photonics

- Broadband Microwave signal detector
- Ultrafast time-stretch LIDAR and spectroscopy

### Quantum Optics

- Room-temperature fiber-optic quantum sources and sensors



## Contact Information

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**Collaborative Interests:** Industrial, biomedical, and harsh environment fiber-optic sensing, mid-IR sensing, imaging and spectroscopy, quantum networks and computing devices, microwave photonics over fiber, Silicon device, and MEMS fabrication

**Recent Funding:** NSF/AFRL/ARPAE

**Keywords:** fiber sensors, microwave photonics sensing and spectroscopy, room temperature quantum devices/sensors