

## SCHEDULE

- 8:45 am Breakfast (Frank Walk Room ELAB)
- 9:00 am Opening Remarks Dean Vicki Colvin (PFTH 1245)
- 9:10 am Announcements Dr. Hunter Gilbert (PFTH 1245)

#### **Morning Session 1**

	PFTH 1245
9:10 – 9:30 am	Alireza Ostadrahimi – A Nonlinear Thermo-Visco-Green-Elastic Constitutive Model
	for Mullins Damage of Shape Memory Polymers under Giant Elongations. (Advisor:
	Guoqiang Li)
	Nominee for Outstanding Research Assistant

9:30 – 9:40 am	Session split –Dr. Hunter	Gilbert (PFTH 1245 and PFTH 1206)
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## Morning Session 2

	PFTH 1245	PFTH 1206
9:40 –10:00 am	Anish Maharjan– Soft, Sensor-Embedded In Vitro Cerebral Aneurysm Model For Biomechanical Studies of Rupture Risks (Advisor: Dr. Robert Herbert)	Emily Friedman– Enabling Assembly and Repair of Dissimilar Thermoplastic Composites For Space Applications Via Ultrasonic Welding (Advisor: Dr. Genevieve Palardy)
10:00 – 10:20 am	John Hebert– The application of digital image correlation (DIC) for research in Fatigue thermodynamics (Advisor: Dr. Michael Khonsari)	James Leung– Shockwave Droplet Interaction (Advisor: Shyam Menon)
10:20 – 10:40 am	Faith Olawoyin– A Hyperbolic Power-Law Model for Describing Biomass Behavior Under Confined Compression (Advisor: Dr Hunter Gilbert)	Julio M Zuazola – flexible, sensor-embedded benchtop model to understand inferior Vena cava filter mechanics (Advisor: Dr. Robert Herbert)
10:40 – 11:00 am	Julian Lee– passive vibration isolation systems for mitigating rotational forces In football helmet impacts (Advisor: Dr Hunter Gilbert)	Md Asmat Ullah – Tailoring Crystallinity at the Interface of Ultrasonically Welded Thermoplastic Composites Using Polypropylene and Nanocomposite Films (Advisor: Dr. Genevieve Palardy)
11:00 – 11:20 am	Md Shafikul Islam – foundation model-driven predictive and interpretable modeling for Critical materials in renewable energy applications (Advisor: Dr. Mahathir Mohammad Bappy)	Joshua Moore – On the Prediction of Critical Velocities of Wood Fiber in Dilute Phase Pneumatic Conveying (Advisor: Dr. Shyam Menon)
11:20 – 11:40 am	<b>Mohammad Derikvand</b> – microfabrication and demolding force measurement of replicated	Mikhalib Green – Dynamic Modeling for Underwater Vehicles: A Koopman Approach (Advisor: Corina Barbalata)

# 22nd MIE Graduate Student Conference, April 26, 2025

	Polymeric microstructures (Advisor: Dr. Sunggook Park)	
11:40 – 12:00 pm	Naga Guntapalli – a multi-fidelity approach for capturing lean blowout Characteristics in a model gas turbine engine combustor (Advisor: Dr. Shyam Menon)	Mohammad Shahini – Measuring fatigue crack growth using microscale specimens: Si- modified Inconel 939 alloy processed by laser powder bed fusion additive manufacturing (Advisor: Advisor's name)

12.00 pm Lunch (Frank Walk Room, ELAB)

### **Afternoon Session 1**

PFTH 1245	PFTH 1245	PFTH 1206
1:20 – 1:40 pm	Nenyi Dadson– Harnessing Event Cameras for Robust Object Detection in Marine Scenarios (Advisor: Dr. Corina Barbalata)	<b>Olutofunmi Olaoye</b> – multifunctional, liquid metal embedded soft materials towards Seals with embedded electronics for space applications (Advisor: Dr. Robert Herbert)
1:40 - 2:00 pm	Setayesh Yavari– formation control of the tethers of an electrostatic solar sail (Advisor: Dr. Marcio de Queiroz)	Mubaraq Olojo – Transitioning from NI cDAQ to NI cRIO for Enhanced Experimental Automation and Real-time Diagnostics in Microcombustion Research (Advisor: Dr. Ingmar Schoegl)
2:00 – 2:20 pm	Aranya Paul– Design and Simulation of Particle Packing for Sustainable Material Design for Construction-scale Additive Manufacturing (Advisor: Dr. Shengmin Guo)	Subhrajyoti Sourav Kumar Kundu – impact of cryopreservation on the mechanical properties of bovine Tendons (Advisor: Dr. Ram V. Devireddy)

# 2:00 pm Break

PFTH 1245	Award Ceremony
2:00 – 3:00 pm	Raffle & Award Presentation
1	Best Presentation Award
	Outstanding Research Assistant Award
3:00 pm	Closing Remarks
3:05 pm	Group Photo

Adjourn