NSF EPSCoR Research Infrastructure Improvement (RII) Award
The 5th LAMDA TECHNICAL MEETING, February 7, 2025
Zoom Meeting Link
(https://lsu.zoom.us/j/8942757897?pwd=VFI1ZWhTc3VSR3hiWC9KMG5BSVBuQT09)
Physical Space: Frank H. Walk Design Presentation Room
Engineering Laboratory Annex 140, LSU, Baton Rouge, LA, 70803

Agenda

8:30 – 8:40	**Welcoming Remarks and Overview** Dr. Michael Khonsari, Louisiana Board of Regents
8:40 – 10:10	**SD-1- Complex concentrated alloys (CCAs)** **Frank Mckay (LSU)/ Jonathan Raush (ULL) / Phil Sprunger (LSU)**: Composition and structural stability of 3d transition metal alloys at high-temperatures **Hamid Sharifi/Collin Wick (LaTech)**: The Atomic Level Study of Complex Concentrated Alloys **Chris Marvel (LSU)**: Synthesis of HEA Powders for MELD Manufacturing **Shengmin Guo (LSU)**: MELD Manufacturing of various alloys **Arden Moore (LaTech)**: In situ defect detection and localized thermophysical characterization of AFSD aluminum alloy materials **Wenjin Meng (LSU)**: Probing deformation and failure across length and time scales **Q&A, SESSION CHAIR:** Dr. Shengmin Guo
10:10-10:20	**Break**
10:20 – 11:50	**SD-2 – Thermoset Shape Memory Polymers (TSMPs)** **GLi (SU/LSU):** Summary of SD-2 Research in Year 5 **Peters (LaTECH)/ Wick (LaTECH):** Topological Fingerprints, Deep Neural Networks, and Mixed Datasets for Shape Memory Polymers **Yan (SU)/ Mensah (SU)/ GLi (SU):** A Multiscale Machine Learning Approach to Model Glass Transition Zone **Aucoin (LSU)/ Pojman (LSU)/ Palardy (LSU):** Free-Standing 3D Printing of Epoxy-Vinyl Ether Structures using Radical-Induced Cationic Frontal Polymerization **Chirdon (ULL)/ Depan (ULL)/ Khattab (ULL):** Environmental Degradation of Thermosetting Shape Memory Polymers (TSMPs) **Q&A, SESSION CHAIR:** Dr. Guoqiang Li
11:50-1:00	**Lunch** LAMDA Data Collection and Annual Report session (**Please bring your laptop**) **SESSION CHAIR:** Dr. Ramu Ramachandran
1:00-2:00	**LAMDA Seed Grant activities** **Dr. Michael Naguib (Tulane):** Functional Two-Dimensional High Entropy Transition Metal Carbo-Chalcogenides for Additive Manufacturing **Dr. Kristie Ruddick (Louisiana Tech):** Middle Grades in the Mix 2024 – A Focus on Grades 7 and 8 in STEM through Chemistry and Materials Science **Dr. Zhengming Ding (Tulane):** Large Vision Model Adaptation for 4D Fracture Detection in X-Ray Material Tomography **Dr. Lijesh Koottaparambil (LSU):** A thermodynamic approach for estimating the life of components experiencing corrosion fatigue **Q&A, SESSION CHAIR:** Dr. Arden Moore
2:00-3:00	**Future Collaborations** 1. **Group 1: Metals** 2. **Group 2: Polymers**
3:00-3:05	**Concluding Remarks** Dr. Michael Khonsari, Louisiana Board of Regents