REQUEST FOR PROPOSALS (ver. 221017)

Advanced Materials and Manufacturing Grants

Mission: Develop and strengthen the materials processing and manufacturing capabilities at Michigan Tech to meet **next-generation research opportunities**.

Strategy: Provide **materials and manufacturing grants** to assist university researchers in demonstrating unique and enabling capabilities related to advanced materials and manufacturing

Description: The Advanced Materials and Manufacturing Tech Forward (AMMTF) initiative, now operating as the Institute of Advanced Materials and Manufacturing (IAMM), **seeks proposals** from university researchers that will advance its mission. Proposals from faculty and/or staff with relevant interests and expertise across all university units are welcomed and encouraged.

All materials- and manufacturing-relevant topics are welcomed. The initiative has particular interest in developing capabilities in the following contemporary and emerging areas:

- Manufacturing for a circular economy, i.e., eco- or sustainable manufacturing
- Data-driven manufacturing and materials synthesis
- Future manufacturing technologies as defined by a recent solicitation by the National Science Foundation (https://www.nsf.gov/attachments/304116/public/future-manufacturing-2022-webinar-slides-508.pdf)
- Cyber manufacturing (manufacturing enhanced by the advanced application of computing, networking, sensing, and/or artificial intelligence)
- Manufacturing process controls derived from massive data streams
- Biomanufacturing (bio-inspired fabrication/manufacturing)
- Any new capabilities or facilities that are available to university researchers

Of less interest would be proposals that are substantially

- Supplies, maintenance, repair, or incremental improvements of existing facilities that do not significantly extend nominal research capabilities
- Undergraduate project support that does not lead to a strong and significant faculty research proposal
- Projects that are primarily data collection that do not extend current knowledge or discovery
- Project budgets that contain summer salary

Proposal Information, preparation, and formatting: **Projects will be funded at a $10K level for up to a 6-mo. period of performance**.

Proposals should be limited to 2 pages in length. Proposals should contain a summary description of the project, a discussion and analysis of the return-on-investment opportunities in service to the mission (above), and a brief description of budget items. Proposals that demonstrate significant opportunities for external follow-on funding involving several investigators and units will be favorably reviewed.

Proposals are due COB 12/01/2022; email to iamm@mtu.edu. Deliverables will be negotiated with the AMMTF working group during the final project discussion. Contingent on availability of remaining funds, a second proposal campaign with a due date of 3/1/23 for follow-on, or new start, grants is anticipated at the same funding level and period of performance.

For more information, contact Steve Kampe, MSE: kampe@mtu.edu or other members of the IAMM working group:

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