**Graduate student position openings – DFT and Atomistic Modelling of alloy solidification**

**Starts from Spring semester 2021**

**New Mexico Institute of Mining and Technology**

**Department of Materials and Metallurgical Engineering, Socorro,** **New Mexico**

**Project Description**

TWO, Army-funded, graduate student positions will be available from Spring 2021 in the area of advanced computer modelling of alloy solidification within the group of Professor Deep Choudhuri at the New Mexico Institute of Mining and Technology.

Students will carry our research in ab initio modelling of alloy solidification to examine

1. Structure of the liquid melt as a function of alloying additions
2. Thermodynamic evaluation of precipitate structure in melt and solid states using **Ab Inito MD simulations**
3. Interfacial structures and energies of precipitate structures in Al and Ni-based alloys
4. Work towards their Master/PhD degrees

Students will close interact with scientists in industry and national laboratories.

**Requirements**

1. Bachelors/Masters in Materials Science and Engineering, Physics, Chemistry, or Mechanical Engineering specializing in metal alloys. Some knowledge in metal solidification behavior will be helpful, but not required.
2. Knowledge of Python scripting and C++ programming is desirable by not necessary
3. Experience in MD simulations is desirable, but not mandatory

**For best consideration, interested candidates are requested to send their CV to Dr. Deep Choudhuri at** [**deep.choudhuri@nmt.edu**](mailto:deep.choudhuri@nmt.edu) **, and apply to NMT’s graduate school at** [**https://www.nmt.edu/gradstudies/admissions.php**](https://www.nmt.edu/gradstudies/admissions.php)

**EEO/AA Policy**

NMT is committed to creating a community in which a diverse population can learn, live, and work in an atmosphere of tolerance, civility and respect for the rights and sensibilities of each individual. NMT is an Equal Opportunity Employer.

**Regional Attractions:** New Mexico Tech is located in Socorro, in the scenic Rio Grande River Valley of central New Mexico, 75 miles south of Albuquerque with its many attractions, and 139 miles south of Santa Fe. Nearby mountains and desert canyons provide opportunities for excellent hiking, climbing, and mountain biking. The Bosque del Apache National Wildlife Refuge, located just south of Socorro along a major north-south flyway, offers some of the best birding in the USA.