**Postdoctoral Fellowship Opportunity – FOUR Open Positions**

As part of the NSF Center on additive manufacturing at FSU/FAMU we seek post-doctoral associates in the following areas **(1)** organic/polymer chemistry and engineering, **(2)** electronic processing, **(3)** synthesis and processing of colloidal materials (graphene, MXene, perovskites), and **(4)** Theoretical/simulations of fluid flow during printing, computational models that account for particle-particle interactions (dense systems) and predict phase behavior/gelation and macroscopic properties. The postdoctoral fellowship positions will be in the NSF funded CREST Center for Complex Materials Design. Current Center research aims at the synthesis, characterization, and processing of polymer-based architectures used in a variety of technologies and devices ranging from aerospace to energy to medical devices using additive manufacturing techniques. The Center collaborates with several national laboratory facilities such as Argonne National Laboratory (ANL), Air Force Research Laboratory (AFRL) and the National High magnetic Field Laboratory (NHMFL) and applicants should be willing to visit these research collaborators as part of their research.

Initial appointment is for one year and is renewable based on satisfactory performance. The position are through Florida A&M University-Florida State University (FAMU-FSU) Department of Chemical and Biomedical Engineering/Industrial and Manufacturing Engineering. Responsibilities will include initial material synthesis for **additive manufacturing**, creation/standardization of analysis processes/characterization for these novel materials, high impact journal publications and mentorship of graduate and undergraduate students. This work will be conducted mostly at the FAMU-FSU College of Engineering and satellite labs that include the NHMFL, but also in collaboration with Harvard University, MIT, ANL and AFRL.

**Skills and Requirements**

- Polymer synthesis and grafting of polymer chains to particle surfaces (for example, controlled polymerizations and/or "click" chemistry).
- Purification and characterization of synthesized particles and polymers.
- Knowledge of scattering and rheological methods to characterize the resultant nanocomposites properties is a plus.
- Device fabrication and characterization.
- Theoretical/Computational studies of particle/polymer systems under flow using high performance computing resources.
- Excellent written English and oral communication skills are required.
- Ability to work independently and mentor graduate and undergraduate students.

Highly motivated applicants should contact Dr. S. Ramakrishnan by email with a CV and contact information of 3 references. Selected candidates will receive an expedited interview application for the final position.

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