

# Ph.D. Position in New Jersey, USA in Computational Nanomechanics/Materials Science/Chemistry

Department of Mechanical and Industrial Engineering  
New Jersey Institute of Technology  
Newark, New Jersey 07102  
United States of America

The Department of Mechanical and Industrial Engineering (<http://mie.njit.edu>) at the New Jersey Institute of Technology (<http://www.njit.edu>) has an opening for the fully funded Ph.D. position. The position will start in Fall 2019 (September 2019). Interested candidates should apply as soon as possible.

**Research Description:** The selected student will primarily work on Atomistic and Molecular Mechanics. He/she will be primarily involved in different projects such as:

- *Modeling of Energy Systems:* Molecular Dynamics and Density Functional Theory simulation of energy systems, e.g., Lithium-ion Battery, Nanomaterials/Nanoparticle for Energy Storage and Conversion.
- *Mechanics of Nanomaterials:* Different aspects of Mechanics (e.g., Fracture, Friction) of various nanomaterials: Graphene and its derivatives, Molybdenum Disulfides, and different other 2D nanomaterials and Transition Metal Dichalcogenide (TMDC).

The candidate will have the opportunity to collaborate with other research groups at NJIT and many other institutions all over the world.

## Candidate's background:

- The position requires an undergraduate/master degree or equivalent within Nanotechnology, Materials Science, Physics, Chemistry, Civil/Mechanical/Aerospace/Chemical Engineering.
- Background in Molecular Dynamics (MD) Simulation, Density Functional Theory (DFT) is preferred – but not essential. Candidate should have strong interest in learning MD, DFT and related tools (e.g. LAMMPS, VASP).
- Strong coding skills in Matlab/Python, shell scripting are preferred.

**Funding:** The position is fully funded. The candidate will be paid for travel and accommodation for at least two conferences every year.

**Profile of the Project Supervisor:** Dr. Dibakar Datta (<http://www.dibakardatta.com/>) will supervise the candidate. Dr. Datta is currently an assistant professor at the

Department of Mechanical and Industrial Engineering at NJIT. Dr. Datta received his Ph.D. from Brown University (2015) and postdoctoral training at Stanford University (2015-2016).

**Application:** The interested candidates should send an email with detail CV to Dr. Dibakar Datta (Email address: [dibakar.datta@njit.edu](mailto:dibakar.datta@njit.edu)).

For any question about this position, candidate should contact Dr. Dibakar Datta by mail or phone (+1 401 573 6817). For further detail, please visit his homepage: <http://www.dibakardatta.com/>