

PhD and PostDoc position in Johns Hopkins University

Delamination in Composites

One PhD and one PostDoc position is available within Hopkins Extreme Materials Institute (hemi.jhu.edu) at Johns Hopkins University. The PhD student will be associated with Mechanical Engineering Department.

The two positions are based upon grants received for an ONR funded project. PhD position will involve 3 years of full funding, whereas PostDoc position will involve 1 year of funding. After the end of 1 year of postdoc funding, the position may be extended subject to mutual interest of both the postdoc and the advisor (Nilanjan Mitra [HEMI | Nilanjan Mitra \(jhu.edu\)](http://HEMI | Nilanjan Mitra (jhu.edu))).

The work is highly interdisciplinary and will involve working in collaboration with several institutes as well as National Labs.

PhD position will involve combined experimental numerical work in the area of delamination of composites. The experimental part of the work will involve composite manufacturing using Vacuum Assisted Resin Transfer molding, and fracture tests on composites. The numerical work will span continuum and molecular length scales. The potential PhD student is expected to have background in either/all of the above mentioned areas:

- Polymer composite manufacturing and experimental investigations
- Continuum simulation of composites
- Molecular modeling and simulation of Polymeric materials

PostDoc position will involve molecular simulations and also quantum chemistry calculations of chemical reactions in adhesives. The potential candidate should have a PhD in either Materials Science, Mechanical, Chemical, Civil, Aerospace, Ocean Engineering, Physics, Chemistry, other relevant departments and/or expected to complete the degree soon. Appointments will be given contingent to completion of PhD. The potential candidate is expected to be proficient in molecular and atomistic simulations (involving electronic contributions). PostDoc fellows are expected to help mentor graduate students and interact with a broad range of faculty members.

If you are interested, please send an email to nmitra1@jhu.edu with a single PDF file containing your curriculum vitae, the names of at least 3 references, and a brief (less than 1 page) research statement (explaining why you are suited for this position). Please use the subject line “Composite Delamination PhD/PostDoc position”. Mention clearly which position you are applying for in the subject line. Review of applications will begin August 15th 2022, but we will continue to accept applications until the position is filled.

Johns Hopkins University is an Equal Employment Opportunity and Affirmative Action employer, and is committed to building a diverse environment. We are deeply committed to the dignity and equality of all persons—inclusive of sex, gender, marital status, pregnancy, race, color, ethnicity, national origin, age, disability, religion, sexual orientation, gender identity or expression, and veteran status. We provide a highly supportive environment for postdoctoral fellows, including carefully curated workforce development events, short courses, seminars, workshops, teaching and mentoring opportunities, and networking opportunities. Your success is our success, and we hope you will join us !