Department of Mechanical Engineering at the University of New Hampshire has several open graduate student positions. Students receive full compensation packages including stipend and tuition waivers. The positions are in the areas of computational modeling of materials, mechanics, advanced characterization of materials, and manufacturing. These research areas are well aligned with major national initiatives in the United States such as the Materials Genome Initiative for Global Competitiveness and the Advanced Manufacturing Programs. We are looking for enthusiastic, intelligent, hard-working and self-motivated applicants interested in pursuing a Ph.D. Projects involve collaborative efforts with both government labs and industry. The predictive science emphasis of our research will provide many options for subsequent employment including academic, national labs and industry.

The Materials Modeling group led by Prof. Knezevic aims at developing predictive tools for understanding of materials behavior and designing next generation materials by aligning cross-disciplinary materials science research. A strong synergy between experimental and theoretical efforts is integral to our research program focusing on (i) fundamental understanding of material behavior under complex loading, (ii) multi-scale physics-based predictive models for mechanical behavior and microstructure evolution during large plastic deformations, (iii) multi-scale physics-based predictive models for ductile fracture, fatigue and creep, (iv) computationally efficient numerical algorithms for multi-scale material modeling with an emphasis on high performance computing, (v) coupling material models with finite element (FE) codes to facilitate optimization of manufacturing processes and evaluation of component performances, and (vi) computational materials design and process design. Here is more info: http://ceps.unh.edu/faculty/knezevic.

Applicants are required to have a B.S. degree in any area of engineering, applied mathematics/mechanics or computer science. Applicants with an M.S. degree and/or prior documented research experience are particularly encouraged to apply.

Applicants are expected to have excellent grades in courses related to materials science, mechanics, mathematics, and computer programming. Experience in at least one of the following is desirable but not necessary: MATLAB or C++ or FORTRAN programming platforms, finite element analysis or CAD software packages, metallographic and mechanical testing equipment. Please note that we do not anticipate students applying to our program to have direct background in our research areas. We expect students who are analytical, creative, and able to quickly learn new concepts. In addition to taking graduate courses, new students are expected to devote time for critical reading of research publications in a designated area, modify/run existing computer programs, setup simple experiments, give presentations to group members and by the end of the first year evolve to productive researchers.

Applicants will need at least two recommendation letters, academic transcripts, TOEFL, a resume indicating experience and academic ranking, and a research statement addressing qualifications and interests.

You will be required to apply online to the UNH Graduate School ideally for the Fall semester of 2017. Once your electronic submission is complete and in order to accelerate the review process, I recommend that you notify me via email.

Best,

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