



**Department of Mechanical
& Industrial Engineering**

Kshitiz Upadhyay, Ph.D.

Assistant Professor (incoming)

Department of Mechanical and Industrial Engineering

Louisiana State University

3261 Patrick F. Taylor Hall, Baton Rouge, LA 70803

Phone: (352) 888-1105 | Email: kshitiz@jhu.edu

Ph.D. Positions in Mechanics of Soft Materials

Job Description:

Two fully-funded Ph.D. positions are available in the research group of incoming assistant professor, Dr. Kshitiz Upadhyay, at Louisiana State University. The focus of Dr. Upadhyay's group is to develop cutting edge experimental characterization and modeling capabilities for understanding the mechanics of soft materials for biomedical applications.

Out of the two open positions, one focuses on machine learning-based mechanical characterization and modeling of the human brain, and the other focuses on the mechanical behavior of soft materials under rapid loading conditions (via experiments). The PhD students will work closely with Dr. Upadhyay and will contribute to tackling problems that have significant and lasting implications in areas at the interface of mechanics and biomedical sciences. The working environment will be highly supportive and collaborative. The expected start date is August 15th, 2022. For more details on the aforementioned research projects or any other inquiry, feel free to contact Dr. Upadhyay at kshitiz@jhu.edu.

Qualifications:

- Bachelor's degree in Mechanical Engineering, Biomedical Engineering, Civil Engineering, or a related field. Preference will be given to candidates with a Master's degree, and to those who have prior research experience.
- A strong understanding and/or experience in at least one of the following: (i) traditional solid mechanics (computational (e.g., FEA), theoretical, or experimental), (ii) biomechanics, (iii) data-science and machine learning.
- Coding experience in MATLAB or Python.
- Excellent written and verbal communication skills.

Application Instructions:

Motivated and interested candidates are encouraged to send an email with the title, "Prospective Ph.D. student", to Dr. Upadhyay at kshitiz@jhu.edu (cc Elise Bridgewater (Graduate Coordinator): gradmie@lsu.edu) with the following information: (i) CV; (ii) Unofficial transcripts; (iii) A short letter of interest (limit to one-page) describing relevant experience, interest, and fit for the aforementioned research directions. The positions will remain open until filled, but candidates who can start from Fall 2022 will be given immediate consideration.