

# Positions Available in the Mechanics of Polymers

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## OVERVIEW

Two positions at the PhD level are available in solid mechanics in my group in the Mechanical and Industrial Engineering Department at the New Jersey Institute of Technology. I'm looking for motivated students in the area of solid mechanics and materials, with specific application to the multiphysics behavior of polymeric materials. A few key areas are polymeric gels, thermo-mechanics of polymers, shape-memory polymers, chemical reactions occurring in a deforming polymer, and so on. Research topics are broad and cover the full range of theoretical, numerical, and experimental aspects.

## DESIRED QUALITIES

Individuals with a background in mechanical, civil, aerospace, and other related fields with strong interest in the behavior of materials are encouraged to apply. Also, those with a working knowledge of the following are encouraged to apply:

- Continuum mechanics
- Computational mechanics (not just using software)
- Chemistry aspects of polymeric materials
- Abaqus, MATLAB, or other engineering software
- Experimental methods

Lastly, those with an added working knowledge of chemistry, and particularly polymer chemistry are especially desired for this position.

## ABOUT THE PI

My research focus in the past few years has been the development of experimentally validated continuum level constitutive theories for large-deformation multi-physics behavior of polymeric materials and the associated numerical implementation. My work spans most aspects of mechanics; experimental characterization, theoretical modeling, numerical implementation, and experimental validation.

I'm currently an assistant professor in the Mechanical and Industrial Engineering Department at the New Jersey Institute of Technology. I was previously a postdoctoral researcher at Lawrence Livermore National Laboratory. Prior to that I obtained my PhD in solid mechanics from the Mechanical Engineering Department at MIT, and obtained both my BS and MS in Mechanical Engineering from NJIT.

## HOW TO APPLY

The positions are available starting January 2016, but will remain open until filled. To apply for the position, please submit a single PDF file via email with (i) your most recent CV (with GPA and any presentations and/or publications), (ii) a research statement including career goals, (iii) any relevant courses taken, as well as (iv) a list of three references. Please name your file "FirstName.LastName.pdf"