

PhD Positions in Additive Manufacturing and Fatigue &
Fracture
Auburn University

Direct Link: <https://www.AcademicKeys.com/r?job=252850>

Downloaded On: Apr. 2, 2025 4:54am

Posted Feb. 7, 2025, set to expire Jun. 9, 2025

Job Title PhD Positions in Additive Manufacturing and Fatigue & Fracture
Department National Center for Additive Manufacturing Excellence (NCAME)
<https://www.eng.auburn.edu/ncame/>
Institution Auburn University
Auburn, Alabama

Date Posted Feb. 7, 2025

Application Deadline Open until filled
Position Start Date Available Immediately

Job Categories Graduate Student

Academic Field(s) Mechanical Engineering
Material/Metallurgy
Engineering Mechanics
Aerospace/Aeronautical/Astronautics

Job Website https://tigermailauburn-my.sharepoint.com/:b:r/personal/szs0348_auburn_edu/Documents/NCAME_PhD%20Position%20Information

Apply Online Here <https://forms.office.com/r/rxnL5RTQ59>

Apply By Email

PhD Positions in Additive Manufacturing and Fatigue & Fracture Auburn University

Direct Link: <https://www.AcademicKeys.com/r?job=252850>

Downloaded On: Apr. 2, 2025 4:54am

Posted Feb. 7, 2025, set to expire Jun. 9, 2025

Job Description

The National Center for Additive Manufacturing Excellence (NCAME) invites applications for fully funded PhD student positions. Successful candidates will join NCAME at Auburn University (AU), contributing to cutting-edge research in additive manufacturing (AM).

About NCAME: NCAME was established in 2017 through a collaboration between Auburn University and NASA, as part of an AU/NASA Space Act Agreement. The center is also a founding partner of the ASTM Additive Manufacturing Center of Excellence (ASTM AM CoE). NCAME strives to bridge the gaps between fundamental and applied research aligned with the industry needs. The center also leads and fosters effective collaborations amongst industry, government, academia, non-profit organizations, and ASTM committees to ensure coordinated global efforts toward rapidly closing the gaps in AM standards and workforce development.

Research focus: NCAMEs' research activities encompass many aspects of metal AM, including:

- **Fabrication** of parts with various metal AM techniques, including laser powder bed fusion, directed energy deposition, and cold spray
- **Mechanical testing** of AM parts, including tensile, and fatigue testing
- **Materials characterization** utilizing advanced techniques such as microscopy, X-ray computed tomography, and diffraction contrast tomography of AM materials
- **In-situ monitoring** utilizing optical systems to observe the AM process and part quality in real-time
- **Simulations** utilizing computational tools such as finite element and crystal plasticity to understand and predict properties and performance of AM parts

Qualifications: The ideal candidates should have

- A bachelor's and/or master's degree in mechanical engineering, materials science, or a closely related field
- Strong background in solids mechanics and materials science
- Excellent communication skills and ability to work independently and as part of a team
- Knowledge of fatigue and fracture, and experience with numerical methods for mechanics of materials analysis are added advantages

PhD Positions in Additive Manufacturing and Fatigue &
Fracture
Auburn University

Direct Link: <https://www.AcademicKeys.com/r?job=252850>

Downloaded On: Apr. 2, 2025 4:54am

Posted Feb. 7, 2025, set to expire Jun. 9, 2025

Benefits:

- **Full graduate assistantship** including tuition waiver
- **Access to state-of-the-art research facilities** within the NCAME
- **Opportunities** to work with world's leading researchers in the field of AM

To apply: Please submit the following application materials electronically by visiting the following link or scanning the QR code <https://forms.office.com/r/rxnL5RTQ59>

- **Cover letter:** Briefly describe your research interests, relevant experience, and career goals
- **Curriculum vitae:** In addition to academic records, include a complete list of publications, presentations, and research experience, if any
- **Transcripts:** Transcripts from all previous institutions

Review of applications will begin immediately and continue until the positions are filled.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact