Assistant/Associate/Full Research Professor
Auburn University

Job Title	Assistant/Associate/Full Research Professor
Department	Asphalt Tech Ctr
Institution	Auburn University
	Auburn, Alabama
Date Posted	Apr. 21, 2025
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Assistant Professor
	Associate Professor
	Professor
	Research Professor
Academic Field(s)	Computer Science
	Construction Engineering/Management
	Chemical/Petroleum
Job Website	https://www.auemployment.com/postings/52871
Apply By Email	

Job Description

The National Center for Asphalt Technology (NCAT) at Auburn University in Auburn, Alabama is seeking candidates for the positions of Assistant/Associate/Full Research Professor.

Area of Focus: Physics-Informed Machine Learning and Generative AI for Asphalt Pavements

This is a non-tenure track faculty position. We seek a motivated and innovative individual to lead research and implementation efforts integrating physics-informed machine learning, data science, and

generative artificial intelligence (AI) into asphalt materials, pavement design and analysis, pavement evaluation, pavement management, and asset management.

Appointment as an Assistant/Associate/Full Research Professor requires demonstrated abilities to initiate and maintain a program of research or creative activity supported by contracts, grants or other designated funds. Appointees in the research title series are not eligible for tenure. An Assistant/Associate/Full Research Professor shall be appointed with a one-year contract that may be renewed annually, or if for a lesser period of time, the period of funding from the contract, grant or other designated funds. All appointees in the research title series will have annual, written employment contracts. Annual renewal is also contingent on "availability of funds, the need for services, and satisfactory performance." Appointees are eligible for all the benefits of tenure-track faculty except tenure and professional improvement leave.

Primary Responsibilities:

- Lead and conduct cutting-edge research that applies physics-informed machine learning and generative AI to solve practical problems in asphalt pavement engineering.
- Meet with potential research sponsors to identify needs and opportunities for the development of machine learning and AI in asphalt pavement applications. Develop proposals to secure external funding based on those discussions.
- Develop predictive models and data-driven decision tools to advance mix design, structural design, pavement performance prediction, tire-pavement interaction, and network-level pavement management.
- Publish technical reports, peer-reviewed journal articles, and present research findings at national and international conferences.
- Mentor graduate and undergraduate students involved in AI, data science, and pavement engineering projects. The development and teaching of a graduate-level course on AI applications in pavement engineering may be considered.
- Support outreach and technology transfer activities to help agencies and industry adopt AI-powered solutions for asset management and pavement engineering.

To ensure full consideration, candidates should apply before May 11, 2025 although applications will be accepted until the positions are filled.

Contact Information

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