



AUBURN UNIVERSITY

Biosystems Engineering

PhD student (f/m/x) in the field of Biosensors – Job Opportunity

We are seeking an enthusiastic and motivated PhD student to conduct research in the field of biosensors in the Department of Biosystems Engineering at Auburn University. This position focuses on developing low-cost, in-situ, and portable sensors capable of real-time measurements for various applications, including air quality monitoring, odor detection, and contaminant detection in water and soil systems. In return, the student will receive a salary and tuition support, as well as access to the necessary resources for conducting research.

Your role in a few words:

You will be involved in the development and optimization of biosensors for real-time environmental monitoring. This includes conducting experiments and analyzing data related to biosensor performance and applications. The candidate will collaborate with a multidisciplinary team of researchers and students, present research findings at internal meetings and conferences, publish in peer-reviewed journals, and write their doctoral thesis based on their research work.

Your qualifications:

Candidates must have a bachelor's or master's degree in chemistry, chemical engineering, biotechnology engineering, biosystems engineering, biological engineering, agricultural engineering, environmental engineering, or a closely related field. They should demonstrate a strong interest in biosensor development, particularly for agricultural and biological systems. Additionally, they must possess strong interpersonal, communication, and organizational skills, and be able to work collaboratively in a multidisciplinary and diverse team of international scientists. Previous research experience in spectroscopy techniques, biocatalysis, polysaccharides, and polymer chemistry is a strong plus. Experience with system-on-chip devices will be considered.

What we value:

We value a strong hunger for knowledge and a genuine eagerness to learn and contribute to the laboratory work. We appreciate individuals who possess a natural curiosity and a positive attitude, thriving in team settings while demonstrating excellent organization, motivation, and enthusiasm for advancing the field of biosensors.

What we offer:

We offer a comprehensive scholarship package aligned with Auburn University standards, ensuring competitive remuneration and work conditions. This scholarship includes full tuition coverage, providing financial support for your studies and research. The position is initially limited to four years, offering a structured timeframe to complete your research and doctoral studies.

Application Process:

Interested candidates should submit a cover letter describing their research interests and experience, a detailed CV, transcripts, and a reference letter from the supervisor.

About Auburn University and the Biosystems Engineering Department

Auburn University, located in Auburn, Alabama, was founded in 1856 as the East Alabama Male College, just 20 years after the city of Auburn was established. Initially a private institution, the college became the first land-grant college in the South in 1872 under the Morrill Act and was renamed the Agricultural and Mechanical College of Alabama. Today, Auburn University spans 1,841 acres (745 ha.) and includes 206 academic buildings among its 427 total structures. The university boasts an enrollment of 33,015 students for the 2023-2024 academic year, with 26,874 undergraduates, 5,136 graduate students, and 1,005 professional students. The student body is nearly evenly split by gender, with 49% male and 51% female students. Auburn is supported by a dedicated workforce of 12,335 employees, including 1,435 faculty members, who contribute to its vibrant academic community.

The Department of Biosystems Engineering (BSEN) at Auburn University is an integral part of the College of Agriculture, focusing on the intersection of engineering and biological sciences. The department is committed to producing engineers competent in developing sustainable and resilient solutions to life's essential challenges: food, water, energy, environment, and health. Students receive hands-on and personalized education, in the family-centered environment that Biosystems Engineering has created. The department provides a well-rounded engineering experience and produces collaborative minds, ready to engage with the multidisciplinary teams in today's workforce. The department offers a Biosystems Engineering major (with options in Bioprocess Engineering, Ecological Engineering, Forest Engineering), and a Biological and Agricultural Technology Management (BATM) major. Auburn's Biosystems Engineering Department has provided integrated engineering, biological, environmental, and agricultural solutions to improve the quality of life since 1919.

Auburn University Requirements for International Students:

Applicants whose native language is not English must submit: 1) TOEFL scores of at least 550 on the written test (213 on the computer-based test); 2) 79 on the Internet Based Test with at least 16 in each section; 3) IELTS overall band score of at least 6.5; or 4) demonstrate English proficiency during an oral examination (interview) satisfactory to the examining committee and approved by the graduate school.

Contact Information:

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