PhD Position in Optical Imaging/Machine Vision for Food Quality Detection
Michigan State University

Job Title	PhD Position in Optical Imaging/Machine Vision for Food Quality Detection
Department	Department of Biosystems & Agricultural Engineering https://www.canr.msu.edu/bae/
Institution	Michigan State University East Lansing, Michigan
Date Posted	Dec. 4, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Graduate Student
Academic Field(s)	Biosystems Engineering
Job Website	https://www.canr.msu.edu/bae/graduate/
Apply By Email	luyuzhen@msu.edu
Job Description	

Graduate Assistantships in Biosystems Engineering at Michigan State University

2025 Spring/Summer/Fall

Michigan State University (Top 100 Globally, Public Ivy, the first Land-Grant University and AAU member in the U.S., Top 15 in Agriculture & Forestry worldwide) is inviting applications for M.S./Ph.D. research assistantships in Biosystems Engineering (https://www.egr.msu.edu/bae/). The assistantship covers tuition and insurance and provides competitive stipends (~$38 K annual stipends) and will be renewed annually. The students will work with Dr. Yuzhen Lu(https://www.yuzhenlu.com/), on original research and development at the intersection of **optical sensing (quantitative imaing/machine vision), signal processing, artificial intelligence (AI) (e.g., generative AI, supervised/semi-supervised learning), and automation for quality assessment and online inspection of foods**

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(poultry, catfish, and horticultural produce). Successful candidates need to be *creative, self-motivated, adaptive, focused, and collaborate in multidisciplinary environments*. The students will be expected to *communicate research outcomes actively and in time through high-quality, peer-reviewed publications and deliver presentations at conferences* (e..g, two national/international conferences per year).

REQUIRED

- B.S./M.S. degree in Ag/Biosystems/Food Engineering, Optical Science/Engineering, Electrical Engineering, Automation, Computer Science/Engineering, or other related fields, with a GPA of 3.3 or higher.
- Proficiency in computer programming (e.g., Python, C++/C, Qt, Matlab).
- Experience in optical imaging, instrumentation, machine learning, or automation.
- Experience in engineering design and prototyping, and software-hardware integration.
- Demonstrated research abilities and scientific writing skills through peer-reviewed publications.
- Students with non-English credentials must obtain a valid TOEFL score of iBT 80+ or IELTS score of 6.5 or higher (see https://grad.msu.edu/english-language-competency) as well as a GRE score (highly recommended to provide).

PREFERED

- Refereed journal publications in quantative optical imaging (e.g., structured light, light scattering) or machine vision of biological materials/tissues
- Experience in hands-on optical instrumentation and automation

APPLICATION

If interested in this position, please contact Dr. Yuzhen Lu [**luyuzhen@msu.edu** (unserious emails without addressing qualifications will not get replies)] with a description of how you meet the qualifications. A full application for an official offer to be made should include a cover letter describing the applicant's research interest, a CV, transcripts, test score(s), journal publications, and a list of three references including names, email, address, and telephone number. Review will begin immediately and continue until positions are filled. Video interviews will be requested for potential candidates. Successful applicants will need to apply to the MSU Graduate School. Please visit https://grad.msu.edu/apply

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and https://www.egr.msu.edu/bae/graduate/application-instructions for details.

Contact Information

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

Contact Yuzhen Lu
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Contact E-mail luyuzhen@msu.edu