PhD student
Tennessee Technological University

Job Title	PhD student
Department	Mechanical Engineering
Institution	Tennessee Technological University Cookeville, Tennessee
Date Posted	Jul. 31, 2024
Application Deadline	Dec. 23, 2019
Position Start Date	Jan. 26, 2019
Job Categories	Graduate Student
Academic Field(s)	Mechatronics Mechanical Engineering Material/Metallurgy Manufacturing & Quality Engineering Industrial & Systems Engineering Engineering Mechanics
Apply By Email	

Job Description

A Smart Manufacturing and Data Analytics Group (https://sites.google.com/site/smandda/) at Tennessee Tech. Univ. is hiring graduate students for this Fall 2019 or Spring 2020 semester. Potential applicants (e.g., Fall 2020 or after) can contact Dr. Duckbong Kim (dkim@tntech.edu) to discuss their interests and possibilities. Tuition, stipend ($1500/month for a PhD student), and travel for conferences will be financially supported.

Our research group focuses on smart manufacturing and data analytics, such as industrial automation and robotics, additive manufacturing (AM), machine vision, data analytics, and decision support. Our current primary research is in AM technologies, specifically the wire+arc additive manufacturing. Despite significant progress in the AM field, a number of technical challenges remain, such as lack of standards/guidelines; modeling and simulation tools; AM design tools; data information management;

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limited number of available materials; and build capacity, processing time, certification, and qualification. Among those challenges, we are currently focusing on four main specific topics: 1) system development of WAAM process, 2) thermometric calibration of vision-based spectro-pyrometer, 3) development of decision support framework for mass customization, and 4) digital inspection from process signature measurements. For detail information, please visit the web-site of Smart Manufacturing and Data Analytics Group.

Required background & knowledge: mechatronics, industrial automation and robotics, additive manufacturing, microstructure analysis, machine vision, optical engineering, welding, and programming (e.g., C++ and Python). Applicants should hold a baccalaureate or a master degree in a field of mechanical engineering, electrical engineering, computer science, industrial engineering or related-areas. Applicants should have earned a minimum of
- GPA: 3.0 on a 4.0 GPA scale (3.4 or the above preferred).
- GRE: Quantitative greater than 50%; Verbal greater than 33%; Writing greater than 33%
- TOEFL: 213 computer-based or 79 internet-based or can be replaced with TOEIC score.
If you are interested in this graduate study opportunity, please send your C.V. to Dr. Duckbong Kim (dkim@tntech.edu). We are looking forward to seeing highly motivated applicants for graduate study.

Best regards,
Duckbong Kim, PhD
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Contact Information

Contact

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