



Two M.S. Assistantships Available!

RESEARCH AREA: Optimization of unitized transportation through research into the interactions between components of unit loads

ASSISTANTSHIP DATES: June 1, 2024 - May 10, 2026

RESEARCH PROJECT DESCRIPTION:

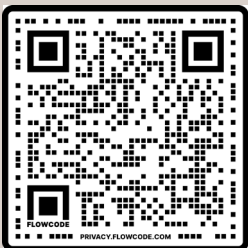
Unitized transportation is ubiquitous in the modern supply chain with 80% of goods traveling as a unit load. To optimize the cost of unitized transportation, unit loads need to be designed holistically using the interaction between packaging and pallets.

This research project will focus on investigating how the interactions between unit load components can result in cost savings. These could include such interactions as how pallet characteristics affect the strength of plastic pails transported on the pallet or how the friction between the pallets and packages can affect the stability of unit loads.

WHAT'S EXPECTED:

Selected graduate students will pursue their graduate degree through the Department of Sustainable Biomaterials.

RESPONSIBILITIES INCLUDE:



- Ability to conduct scientific research, independently.
- Work 16 hours per week for the Center for Packaging and Unit Load Design as a Graduate Laboratory Manager.
- Present research at scientific conferences.
- Represent the Center at national tradeshows.

FUNDING:

Graduate Assistantships usually provide a \$29,000-\$30,000 annual stipend in addition to fully covering Virginia Tech tuition.



REQUIRED QUALIFICATIONS:

- Already have completed a BS in Packaging Science, Wood Science, Mechanical Engineering, or another related field
- Must be accepted into a M.S. or Ph.D. program within the Department of Sustainable Biomaterials at Virginia Tech
- Must have completed the TOEFL and the GRE with acceptable scores, and must have a GPA of at least 3.4

PREFERRED QUALIFICATIONS:

- Experience with scientific research, statistics, and data analysis
- Good writing, communication, and interpersonal skills
- Experience with statics, mechanics, and advanced mathematics

The Center for Packaging and Unit Load Design is one of the most experienced research centers in the area of package, pallet and unit load design. The Center was established in 1976, and since then, it focuses on the development of systems-based technologies to optimize the relationship between the design and performance of unit loads, and maximize the efficiency of the complete system.

WANT TO KNOW MORE?

Scan QR code above, or contact Dr. Laszlo Horvath,
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unitload.vt.edu