Advanced Packaging Dynamics: Measurements and Simulations

Short Course Summary:

The Advanced Packaging Dynamics short course is being held in conjunction with the Lansmont Corporation. This will be 2.5-days. This course is designed to be delivered in-person due to its extensive hands-on elements. Attendees will be informed about the principles of shock, vibration, field data collection practices, and sensor selection. Laboratory simulations will be conducted around how to collect field data and how to use the collected information to optimize packaging and eliminate damages.

By the end of the course, the attendees will be able to instrument different transportation modes to collect vibration data, instrument decoy packages to collect distribution shock data, collect and analyze said data, and setup laboratory simulations to test new designs under the same conditions that were realized thru the data collection processes.

Who should attend?

Packaging design is an integral part of the material handling system. Packaging engineers, quality engineers, packaging sales, packaging suppliers, designers, and other professionals who are responsible for packaging materials purchasing, as well as corrugated box designers will all benefit from an understanding of Advanced Packaging Dynamics.

Topics covered in this short course:

- The fundamentals of vibration and shock.
- Accelerometer types and the effects of sensor selection.
- Best practices for collecting field data.
- How to instrument different transportation modes for the collection of vibration data.
- How to setup instrumented decoy packages in order to characterize the e-commerce environment.
- How to conduct vibration and shock data analysis.
- How to collect and analyze low-acceleration and long-duration shock events.
- Laboratory simulations of shock and vibration events.
Instructors:

**Dr. Laszlo Horvath** is the Director of the Center for Packaging and Unit Load Design (CPULD) at Virginia Tech. He received his PhD in Forest Biomaterials from NCSU. He teaches package engineering and pallet design to both undergraduate and graduate students. His research areas include the analysis of interactions between the components of unit loads and the development of bio-based and sustainable packaging materials. Dr. Horvath is one of 50 ISTA Certified CPLP professionals, and a member of various ASTM, ANSI, and ISTA committees.

**Mr. Eric Joneson** holds a B.S. in Packaging from Michigan State University and has an extended experience in areas of transportation packaging, supply chain dynamics measurement and analysis and laboratory testing applications. He is a member of both IAPRI and ISTA’s Board of Directors, as well as Lansmont’s Delegate of the ISTA Advocate Council. He participates and contributes within ASTM Committee D10 on Packaging. Joneson represents Lansmont, a PPT Group brand, as they support global research initiatives through various Packaging Research Institutes and Universities.

Short Course Lectures:

- Packaging Hazards
- Accelerometers and equipment selection
- Shock and vibration data collection for over-the-road, rail and air transport
- Drop characterization single parcel environment.
- Data analysis
- Laboratory simulation development
- Long duration shock measurement, analysis, and laboratory simulation

Registration:

The cost is $1,400 per registrant. Members of CPULD and Lansmont customers will receive a discount on attendance. The registration fee includes all course materials, daily breakfast, lunch, and refreshment breaks, and a completion certificate.

You can register for this short course by visiting the [Advanced Packaging Dynamics](#) webpage and clicking on the registration link. Or you can call Erich Sawyer at 540-231-4084.