

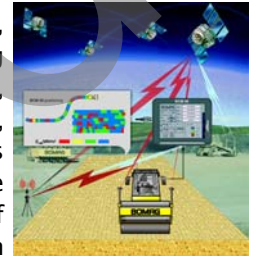


ICDM Workshop

Intelligent Compaction Data Management

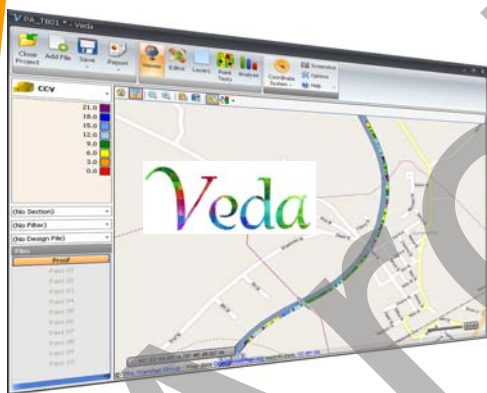
What is Intelligent Compaction

Intelligent Compaction (IC) refers to the compaction of road materials, such as soils, aggregate bases, or asphalt pavement materials, using vibratory rollers equipped with an integrated measurement system, Global Positioning System (GPS), onboard computer reporting system, and (for asphalt) non-contact thermal sensors. The use of IC rollers allow for real-time monitoring and just-in-time corrections in the compaction process. IC rollers also maintain a continuous record of roller passes, IC measurement values (relating to stiffness), vibration frequency/amplitude, and roller speeds.



Benefits of Intelligent Compaction

- Improved rolling patterns
- Better QC: Uniformity and consistency
- Increased productivity
- Reduction of highway repair costs
- Continuous record of material stiffness values
- Identification of non-compactable areas
- Fewer passes, fuel savings, operation savings, reach target of compaction, not over-rolled.
- Improve long term performance. Documentation of data (results), encourage best practices.



ICDM Training with Veda

Veda (pronounced as "Vehda"-meaning "knowledge") is a powerful software for viewing and analyzing geospatial data. It is developed by The Transtec Group and sponsored by the Minnesota Department of Transportation (MnDOT).

Veda can import data from various intelligent compaction (IC) machines and MOBA PAVE-IR thermal profile to perform viewing, editing, point tests correlation, and statistical analysis. Veda is essential for standardization of IC technologies.

Training and data management is critical when implementing IC. Training workshops built around IC technologies and Veda will bridge gaps in IC implementation at any levels.



Hosting a Workshop/Equipment Demo

Each workshop includes presentations and hands-on exercise materials for a one-day training. PCs with internet connection and pre-installed with Veda workshop software are required for all participants. Host agency should provide a facility (40~60 people) in classroom style with a LCD projector, a screen, electricity outlets and/ extension cords. Optional equipment demo requires a parking facility.

Who Should Attend

DOT Construction Engineers, QC/QA Personnel, Spec Writers, Roller operators, Paving Managers/Superintendent, Earthworks Managers, IC/GPS dealers and technical support.

Agenda

One-Day ICDM Workshop

Module	Topics	Length (min.)
1	Introduction and Overview	30
2	Fundamentals of Intelligent Compaction	40
	Break	15
3	Global Positioning System (GPS)	40
4	IC Systems and Measurement Values	50
	Break (lunch – not provided by FHWA)	60
5	Practical Implementation of IC – I	50
6	Practical Implementation of IC – II	50
	Break	15
7	More Hands-on with Veda	50
8	Q & As	30

Optional 1/2-Day Equipment Demo

Module	Topics	Length (min.)
9	Introduction and Overview	20
10	IC Systems (vendors 1-4)	80
	Break	15
11	IC equipment demo (static show & tell)	120

Contact

Antonio Nieves Torres
 FHWA Office of Infrastructure
 Phone: 1+(202) 366-4597
 Antonio.Nieves@dot.gov

Dr. George Chang, PE
 Transtec Group
 Phone: 1+ (512) 451-6233 ext-227
 gkchang@thetranstecgroup.com

