

Intelligent Compaction Workshops



LEARN INTELLIGENT COMPACTION

FHWA Technical Support Service Center (TSSC) offers two types of Intelligent Compaction (IC) workshops for soils/aggregate and asphalt compaction:

- IC Data Management (ICDM) workshops
- IC Overview workshops

ICDM Workshops

Hands-on IC training

Intended for contractors and agencies who are ready to implement IC

Workshop only: 1 day
Workshop with equipment demo: 1½ days

Presentation, hands-on Veda experience, optional equipment demonstration

Instructor: Dr. George Chang, The Transtec Group

Laptop computer required

Contact: Antonio Nieves
FHWA Office of Asset Management, Pavement, and Construction
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IC Overview Workshops

Overview of IC concepts and methods

Intended for those interested in learning IC basics and benefits to contractors and agencies

4 hours

Presentation and discussion

Instructor: Bob Horan, Asphalt Institute

Computer not required

Contact: Michael Arasteh
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ICDM Workshops

Objectives

- To familiarize attendees with the intelligent compaction technologies and Veda software.
- To inform attendees of the advantages, limitations, and pitfalls related to analyzing and interpreting intelligent compaction and related data.
- To provide an interactive and hands-on approach for facilitating practical IC implementation.

Who Should Attend

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

“Going through IC case studies with hands-on Veda exercises, you can implement IC yourselves in the future!”

Day-1 ICDM Workshop Agenda

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 Day-2 IC Equipment Demo Agenda

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

For the Hosting Agencies

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.



IC equipment demo



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IC Overview Workshops

“IC technology is an exciting innovation that can provide many benefits to both the agency and contractors, however there are challenges that need to be understood and addressed to accomplish a successful construction project using IC technology.”

Half-Day IC Overview Workshop

Module	Topics	Length (min.)
1	Welcome and Introductions	5
2	Workshop Introduction	10
3	Importance of Compaction Major Factors Effecting Compaction	30
4	IC and Global Positioning System (GPS) Basics	60
	Break	15
5	IC Research Findings	30
6	Using IC for QC on an Asphalt Project: Part 1	30
	Break	15
7	Using IC for QC on an Asphalt Project: Part 2 (Including Veda Software Overview)	35
8	Discussion/Q&A	10

Objectives

Discuss the importance of compaction and list critical factors in the compaction process

- Introduce the basics of IC and GPS for IC
- Describe existing IC technology and equipment
- Explain the benefits of IC to agencies and contractors, and the challenges
- Show how IC can be used for Quality Control (QC) on pavement materials construction projects
- Provide an overview on the role of the agency and contractor to conduct a successful project using IC, including use of the generic IC specification, data management and Veda software.

Who Should Attend

- DOT Construction Engineers
- QC/QA Personnel
- Specification Writers
- Paving Managers/Superintendent
- Earthworks Managers

For the Hosting Agencies

Each workshop includes presentations and Q&A for a half-day training. Host agency should provide a facility (40~80 people) in conference style with a LCD projector and a screen.



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How to Request and Host IC Workshops?

State/city agencies may request either ICDM or IC Overview workshop, or combine both workshops in consecutive days or as separate events. Check out the latest workshop schedule on the FHWA TSSC IC workshop webpage (<http://www.fhwa.dot.gov/construction/ictssc/workshop.cfm>).

Here are the steps to host IC workshops:

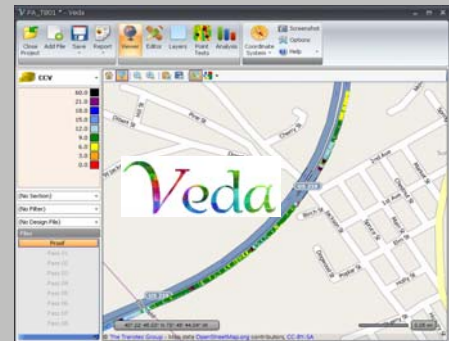
1. Look through the workshop comparison chart on page 1 and workshop details on page 2 and page 3.
2. Determine which workshop or both workshops (with an option for IC equipment demo) you like to host. If in doubt, please call us.
3. Pick a workshop location and select three preferred dates with at least two months lead time.
4. Promote the events to target audiences (see "Who Should Attend" on page 2 and page 3).
5. Work with workshop instructors to meet the facility requirements and regarding other details.

What is 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.

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.



TSSC SERVICES

- Phone and email support
General IC questions, specifications, workshop requests, Veda support.
- Local assistance
IC spec development/reviews, pilot project/IC system selections.
- Workshops
One-day or 1/2 day workshops to cover IC basics, data management, Veda, hands-on case studies.
- IC equipment demo
½ day show-and-tell by IC and GPS equipment vendors.
- Technical documents
Whitepapers, tech brief, application notes, standards, and reference documents.

What is TSSC?

The Intelligent Compaction (IC) Technical Support Service Center (TSSC) is sponsored by the FHWA Every Day Counts (EDC) 2 initiative to provide public support for IC.

TSSC is part of the FHWA efforts to deploy nationally Intelligent Compaction.

Phone and email support is available five days a week (Monday – Friday) from 8:00am to 5:00pm CST.

For further information, contact:

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EDC 2
Innovation



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FHWA EDC IC Website
www.fhwa.dot.gov/Construction/ICTSS