



ISIC Webinar Series - No.005

How Veta Leverages Values of Intelligent Construction Technologies

Time/Date 9 AM to 11 AM US CST (2 PM WET, 10 PM Beijing Time), March 30th, 2023
Venue GotoWebinar

Many Systems ONE SOFTWARE



Moderators

Dr. George K. Chang, PE, President of ISIC; Transtec Group, USA

Speakers

Rebecca Embacher, M.S., P.E., MNDOT, USA
Michael Johnson, MNDOT, USA
Forrest Hierholzer, Granite Construction, USA

Description

Veta is a public domain software to view and analyze geospatial data from various intelligent construction technologies (ICT). ICTs are innovative technologies that include the characteristics of perception, analysis, decision-making, or execution that improve efficiencies, qualities, and infrastructure construction. Veta development has been sponsored by the US FHWA and transportation pooled fund studies (TPF) since 2013. Veta currently supports Intelligent Compaction (IC), Paver-mounted thermal profiler (PMTP), dielectric profile systems (DPS), etc. Veta will also support E-Ticketing, Material Delivery Management Systems (MDMS), Ground penetration RADAR (GPR), and other ICTs in the next few years. This webinar will provide a brief history and background of Veta. Speakers from the Department of Transportation (DOT) and contractors will also share their perspectives and demonstrate field case studies on how Veta helps them to leverage the values of IC, PMTP, and DPS to diagnose asphalt paving issues and make timely corrective actions to improve the pavement qualities.

Registration

Registration is free. We will provide certificates of 0.2 PDH to participants upon request.

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Agenda

Time	Topic	Speakers
09:00 – 09:05	Introduction of Speakers	Chang
09:05 – 09:20	Brief History of Veta and Key Features	Embacher
09:20 – 10:00	DOT’s Perspective and Case Studies	Johnson
10:00 – 10:40	Contractor’s Perspective and Case Studies	Forrest
10:40 – 11:00	Qs and As.	All speakers

Speakers' and Moderators' Bio



Rebecca Embacher, Advanced Materials and Technology Engineer, MNDOT, USA

Ms. Embacher earned her M.S. in Civil Engineering at the University of Minnesota. She has worked as a research engineer at the University of Minnesota and the Minnesota Department of Transportation, a pavement engineer at American Engineering and Testing, Inc., and an Assistant Grading and Base Engineer at the Minnesota Department of Transportation. She is currently the Advanced Materials and Technology Engineer at the Minnesota Department of Transportation. Her areas of experience are related to the physical and mechanical properties of concrete, pavement design and preservation, seasonal load limits, research and development, earthwork/embankment, and pavement construction, and during the past 15 years – the implementation of geospatial technologies for evaluating paving and grading and base material properties before and during construction. This includes technologies such as machine guidance for excavation, grading, milling, and paving; intelligent compaction on reclamation and bituminous applications; paver-mounted thermal profiling; e-construction / e-ticketing; digital test rolling; determination of Veta features; and more.



Michael Johnson, Assistant Advanced Materials and Technology Engineer, MNDOT, USA.

Mr. Johnson earned his B.S. in Civil Engineering from the University of Alaska Anchorage. He worked as a consultant civil site designer for commercial development in Anchorage for several years. Since 2017, his focus has been on intelligent construction technologies to evaluate pavement quality using intelligent compaction, paver-mounted thermal profiling, material delivery management systems, ground penetrating radar, and other innovative quality control technologies. Michael provides statewide support for these technologies, including identifying appropriate applications, implementation, and onsite data collection assistance.



Forrest Hierholzer, Quality Engineer, Granite Construction, Reno, NV, USA



Mr. Hierholzer's current role is to provide quality-related support to Granite's construction and construction materials groups throughout the company, focusing on transferring knowledge and best practices between all regions. Forrest received a bachelor's degree in Environmental Science and Management from the University of California, Davis, and a master's degree in Civil Engineering from the University of Nevada, Reno. Forrest's primary interests include asphalt production quality control, the design of construction materials, and exploring innovative technologies related to asphalt production and paving.

Dr. George K. Chang, PE, President of ISIC; Transtec Group, USA



Dr. Chang is a world expert on pavement smoothness and intelligent compaction/construction technologies. He founded the International Society for Intelligent Construction - ISIC (www.IS-IC.org). His research, teaching, specification development, and software tools have helped make significant technological advancements in the above fields. The websites he develops and maintains, Profile Viewing and Analysis - ProVAL and Intelligent Construction Technologies - Veta, have become a one-stop-shop for pavement smoothness and intelligent compaction (IC)/construction technologies (ICT). Since 2007, he has led the IC/ICT implementation efforts worldwide, including in the US, Europe, China, and Australia, etc.