



ITS PULSE

Volume 8
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March 2009

Special Vendor
Edition

President's Message

By Steve Rockers, Kansas Department of Transportation



Rockers

Welcome to the ITS Heartland 10th Annual Meeting in Topeka, Kansas! The Board of Directors have been working hard to make this meeting one to remember.

At this year's conference, speakers will share what they've learned from past

experiences, as well as look into the future for the latest in emerging technologies.

Several new initiatives went into planning this year's agenda. One initiative that was suggested via comments from prior meetings was a call for abstracts, which we implemented for the first time this year. Also new this year is a Student Essay Contest. Chung-Jen Hsu, a student from the University of Nebraska-Lincoln, was selected as the winner and will give a presentation on "An Analytical Evaluation of Transmission Range in Vehicular Ad Hoc Networks."

It is with much appreciation that we acknowledge this year's sponsors for their generous financial support. In these difficult economic times the sponsorships are truly appreciated, now more than ever. As of printing time, the meeting sponsors are: CJW Transportation, CITE, Delcan, General Traffic Control, HNTB, HWS, Iteris, Inc.,

Kimley-Horn and Associates, Inc., Meridian Environmental Tech, Olsson Associates, Rhythm Engineering, SRF Consulting Group, Televant Farradyne, TransCore, URS, Vanus, Inc., and Wavetronix, LLC. We also wish to extend our appreciation to Telvent Farradyne for hosting the Symposium, and HNTB, Rhythm Engineering, Meridian Environmental Technology, and Vanus for hosting the 10th Anniversary Comedy Improv event at the Topeka Civic Theater.

We strive each year to put our vendors on center stage. I encourage each attendee to spend time in the exhibit hall visiting with the many technology providers that have their quality products and services on display. This is a great opportunity to learn and network. This special edition of the *ITS Pulse* presents a glimpse of what they have to offer.

As my term as ITS Heartland President comes to an end, I look back on the past year with sincere gratitude to the extraordinary group of people with whom I've had the pleasure to serve. Thank you to the board members who have given so much of their time, talents, and energy to sustain and advance our chapter. Thank you to the membership for allowing me the opportunity to serve our great organization. It has truly been a privilege and a pleasure.

Sincerely,

Steve Rockers, ITS Heartland President



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See you there!

ITS Heartland 2009 Annual Meeting

March 30 to April 1 in Topeka, Kansas | [The full agenda for meeting attendees, sponsors, and vendor booths can be found at www.itsheartland.org](http://www.itsheartland.org)

Consensus Systems Technologies

In January 2001, USDOT published FHWA Rule 940/FTA Policy on Intelligent Transportation System Architecture and Standards. The first part of this Rule/Policy is the development of a regional ITS architecture tailored to address local ITS investment needs. The second part includes a requirement to perform a systems engineering analysis for all ITS projects.

The systems engineering process is a structured way of thinking about and defining a system. Numerous studies show that using a systems engineering process to properly to define user needs, articulate project requirements, and manage risk can significantly decrease project cost and schedule overruns, and increase the chances of a successful project outcome.



ConSysTec is an industry leader in the application of systems engineering in regional ITS architectures, ITS standards, and transit systems. To discuss the studies on systems engineering and how to apply systems engineering, please visit us at www.consystem.com or contact Robert Jaffe (914.248.8466) or Bruce Eisenhart (703.802.4835), or e-mail us at inquiries@consystem.com.

Winner Chosen for Student Paper Contest

Expanding the outreach efforts of ITS Heartland, the Board of Directors voted to establish a Student Paper Contest open to all of the public universities in the Heartland area. The goal of the new outreach effort is to increase the level of connection and involvement with students, who will be the next generation of professionals in the industry.

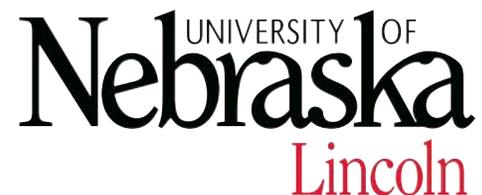
Students were invited to submit papers on work they are completing, with the first place winner having the opportunity to present his or her work at the 2009 conference in Topeka. Papers were judged by a panel from the Board of Directors.

The inaugural winner of the contest is Chung-Jen Hsu, a graduate student at the Mid-America Transportation Center at the University of Nebraska-



Chung-Jen Hsu, the 2009 ITS Heartland Student Paper Contest Winner

Lincoln. He wrote "An Analytical Evaluation of Transmission Range in Vehicular Ad Hoc Networks." Chung-Jen will receive the first place prize of \$1,000 and will present his paper on Wednesday, March 31, 2009, in the morning session.



The second place winner is Hang Yue, a graduate student at the University of Nebraska-Lincoln. Hang will receive a prize of \$300.

Congratulations to all and we look forward to the contest again next year.

Mark your calendar:

ITS Heartland 2010 Annual Meeting

March 30 to April 1, 2010
Embassy Suites - La Vista
Omaha, Nebraska

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GE Security/IFS

International Fiber Systems (IFS)/GE Security Transmission products are built for ITS

GE Security/IFS is the market leader in fiber optic and IP technology for the security and intelligent transportation market (ITS). We have a more complete line of fiber optic and IP equipment, OEM relationships, and established deployed systems than anyone else worldwide, and we plan to vigorously maintain that position by our commitment to increased investment in R&D development in 2009.

GE Security/IFS products are manufactured in the United States at our world-class, 125,000-square-foot



facility in Lincolnton, North Carolina. Our Lincolnton manufacturing facility is ISO 9000 certified and employs more than 300 personnel who are dedicated to providing you with the quality of product you have become accustomed to. It is also the home of our new expanded Fiber Service facility.

GE Security/IFS now has a more centralized distribution warehouse in Portland, Tennessee, which allows us to improve delivery time. Orders for standard off-the-shelf products take 2-3 days with large or special orders running about 5-7 days—well within the industry average.



An entire worldwide team of sales, engineering, and factory management professionals who are experienced and committed to servicing our dealers, channel partners, and OEM business partners backs GE Security/IFS products with the legendary Comprehensive Lifetime Warranty.

Contact us today for assistance with any project: ifsinfo.security@ge.com

National ITS Market Manager:
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Rhythm Engineering

The Rhythm Engineering team has integrated IP sensor technology and robotics to produce a user-friendly, cost-effective, adaptive-traffic control system.

When deployed at intersections, InSync "sees" the real-time traffic and automatically synchronizes the changing of traffic signals to create a better flow of traffic along roadway arterials while, simultaneously, minimizing delay at side streets. It eliminates the need for traditional timing plans by creating its own dynamic coordination "plans" on the fly.

InSync's artificially intelligent processors calculate the real-time queue lengths, stop delay, and



traffic volumes every second and communicate this data throughout its network in order to optimize the signals and to coordinate a whole arterial. InSync is a plug-in that seamlessly interfaces with existing hardware and causes signal controllers of any kind to change its signal phasing according to a digital methodology that outperforms the existing "cycle, split, and offset" approach. Rhythm has come to the market with the needs of public traffic engineers, their staffs, and their budgets in mind.

Benefits include significantly reduced congestion, emissions, travel times, stops, accidents, and motorist frustrations along with correlating fuel and monetary savings.

www.rhythmtraffic.com

See you there!

March 30 to April 1 in Topeka, Kansas

The full agenda for meeting attendees, sponsors, and vendor booths can be found at www.itsheartland.org

ITS Heartland 2009 Annual Meeting

Image Sensing Systems Canada

Image Sensing Systems Canada specializes in radar technology and solutions for advanced traffic applications. Their flagship product, RTMS™, is the leading non-intrusive microwave traffic sensor in the world.

ISS Canada's newest RTMS™ release, the G4, combines radar detection across 12 lanes with a video camera for electronic surveillance making it the only advanced device to incorporate the reliability, accuracy and consistency of non-intrusive radar based technology with real-time video technology.

ISS Canada also offers a comprehensive portfolio of integrated solutions including traffic counting, freeway management, urban traffic control, work zone safety, and warning and incident detection.

www.imagesensingca.com



High Sierra Electronics, Inc.

HSE systems can help predict weather changes, identify threats to road surface conditions, disseminate information, and facilitate automatic



warning systems. Successful HSE projects include road surface monitoring, road weather information systems, and advance warning systems for road weather management.

HSE is pleased to introduce two new RWIS Remote Processing Units: the Model 5400 and Model 5470. Each are NTCIP-compliant and offer a non-proprietary open architecture. The Model 5400 supports a full range of atmospheric sensors, as well as pavement condition sensors and traffic monitoring. The Model 5470 is designed for primary deployment within existing or new ATC 2070 cabinets and supports several "actionable" weather sensors.

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High Sierra Electronics, Inc.

800.275.2080

eric@highsierraelectronics.com

BOOTH #26

www.highsierraelectronics.com

Thanks to our Vendors & Sponsors

Sponsors:

- Gold: HWS | Iteris | Olsson Associates | TransCore | URS
- Silver: CJW Transportation | Delcan | General Traffic Control | Kimley-Horn | SRF Consulting | Vanus | Wavetronics
- Symposium: Telvent Farradyne
- Door Prize: CITE
- Anniversary Celebration Sponsors: HNTB | Rhythm Engineering | Meridian Environmental Tech | Vanus, Inc.

Vendors:

- 2 ITS-Help | A-T Communications | Brown Traffic Products, Inc. | Consensus Systems Technologies (ConSysTec) | Daktronics, Inc. | Gades Sales Company, Inc. | High Sierra Electronics, Inc. | IFS/ GE Security | Image Sensing Systems Canada | Imago | Meridian Environmental Technology Inc. | Mid American Signal | Open Roads Consulting, Inc. | Pinkley Sales | Quixote Transportation Technologies, Inc. | Rhythm Engineering | RuggedCom, Inc. | Sensys Networks | SES America, Inc. | Skyline Products | Telegra, Inc. | Telvent | Traffic Control Corporation | Traffic Signal Controls | TransCore | Wavetronix | ZOOM LBS

Vanus

VANUS delivers expertise in ITS planning, design, implementation, and inspection. Our knowledge includes experience with CCTV cameras, DMSs, vehicle detection, highway advisory radio, wireless technologies, hardwire communications, and Ethernet/IP designs and applications.

Heartland Projects

- **KDOT I-70 DMS and CCTV Deployment** – Prepared a Concept of Operations and Deployment Plan with “Fast Track” and optimum deployment solutions, design documentation, and construction plans.
- **KDOT I-70 ITS Integration** – Providing systems integration for the “Fast Track” Deployment of 15 DMSs, 25 CCTV cameras, and two queue detectors.



- **Kansas City Scout Expansion** – Preparing plans for the system expansion on I-35, I-29, and I-435.
- **MoDOT Radio System Enhancement** – Performed the preliminary design to enhance statewide communications for voice and data.
- **Kansas City, Missouri ATMS Design** – Prepared plans and specifications for a fiber optic network interconnecting 105 intersections in downtown.
- **Olathe, Kansas ATMS Master Plan/Design** – Developed a master plan for this 80-intersection ATMS and the communications plans for implementation.

- **Lenexa, Kansas Traffic Signal Communications Expansion and CCTV Camera Design** – Inventoried the existing Lenexa fiber optic network and used the data for a communications master plan and a network expansion design.
- **Overland Park, Kansas Communications Master Plan** – Developed a plan to update its existing closed-loop signal system to a user-owned fiber optic network.

ZOOM Information Systems

The Next Generation Rest Area: A Platform for ITS Data Collection, Traveler Information Display, and Income Generation



ZOOM is working with DOTs across the country, including Kansas and Iowa, to implement new technology platforms in rest areas, enabling applications that gather and display traveler information in various ways.

A logical location for a rural ITS data portal, this platform provides WiFi and interactive displays while connecting to cameras and other data collection devices and even communicating with vehicles as they pass by. The Next Generation Rest Area is also heavily focused on advancing state tourism with advanced location-based services. An important corresponding business model helps subsidize most or all of the cost of the program through an FHWA-approved sponsorship and advertising model.



Above: Michigan rest area screen

Left: Rest area display examples

SRF Consulting Group

SRF Consulting Group, Inc., provides planning, design, implementation, integration, and evaluation services for traffic management, advanced transit, and traveler information systems. We specialize in systems architecture, communications, and network design; vehicle detection technology; road weather information system sensor technology; and systems integration.

Our team of ITS professionals has real world experience planning, designing, and implementing a wide range of technologies, including wireless, cellular, fiber optic, and satellite communications. SRF has been



instrumental in planning, deploying, and evaluating ITS systems for clients across the Midwest.

SRF is actively working with Iowa DOT on several projects. SRF is conducting a feasibility study to explore mobile probe data applications for traveler information. The study includes a state of the practice review and

recommendations for deployments in Iowa. SRF also recently deployed a train detection and traveler information system in Sioux City, developed various message sets for DMS, worked with medical providers on the Golden Hour project, and provided recommendations on portable DMS procurement. We are also designing the statewide AMBER Alert Dynamic Message Sign deployments with KDOT.

Contact Information:

Brian Scott at 763.475.0010 or bscott@srfconsulting.com, or visit our web site at www.srfconsulting.com.

SES America



SES America presents its Messenger 6000: The new generation of LED Dynamic Message Signs

After years of experience in Dynamic Message Signs (DMS) manufacturing, SES

America, Inc., (Formerly known as FDS) continues to introduce revolutionary concepts and technology. Because our clients need to send a clear message to motorists, our engineers have used the latest technology to improve the legibility of the sign while reducing maintenance needs.

Thanks to our new concepts and the use of the latest LED technology, our products life cycle cost is reduced by 30 percent compared with equivalent classical LEDs DMS. Our design avoids heavy ventilation, ducts, and other difficult to maintain heat management system.

Our mechanical engineers have found an efficient alternative to the Walk-In housing. This concept, called canopy doors, offers a better working environment for maintenance personnel. Canopy doors provide for a lighter DMS with the benefit of being less expensive.

SESA offers a full range of LED DMS and also provides services during installation, testing, and maintenance.



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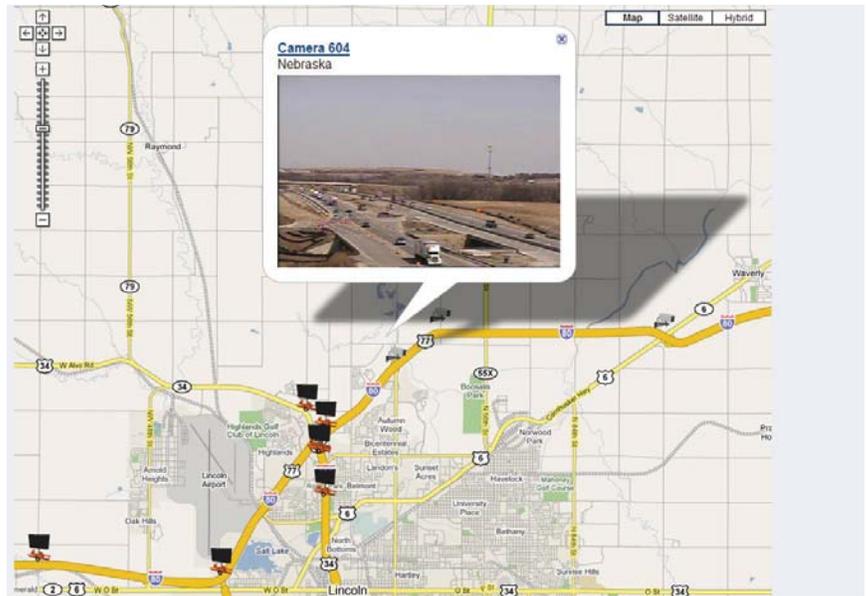
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Iteris

Work Zone Traffic Management System a Continued Success

Iteris has been providing on-going ITS consulting services to the Nebraska Department of Roads (NDOR) on several projects. NDOR has remained a primary client within the Heartland Region and has engaged Iteris to provide a Work Zone Traffic Management System for the past three years.



By utilizing a Work Zone Traffic Management System for more pro-active temporary traffic control, improvements to safety characteristics and traveler information along the I-80 corridor have been successful.

Iteris has partnered with Traffic Technologies, LLC to design, deploy, and maintain a system along the Interstate 80 corridor, undergoing reconstruction to a six-lane facility between Lincoln and Omaha. Special restrictions and environmental impacts have underscored the need for a higher level of work zone management and temporary traffic control through this area.

One of the largest benefits has been the ease of use among operators and improved coordination among stakeholders in the detection and control of incidents. The ability to quickly move equipment, set automation schemes, and try different strategies has enabled the project team and agency staff to plan for future activities.

The Work Zone Traffic Management System is bringing real-time traveler information to NDOR-owned roadside signs for display to the motoring public. The system consists of vehicle detection devices, portable dynamic message signs, speed sensors, CCTV cameras, and a cellular communications system so that constant monitoring of the work zone is achievable from any device with a web connection.

Construction phasing plans were used to develop potential locations for sensors, portable signs, and cameras, so that moving of equipment throughout construction phases could be minimized. As part of follow-on phases to the project, several scenarios were developed for automation schemes through the work zone to post messages in specific directions based on multiple speed sensor readings.

TELVENT www.telvent.com

Experienced in the Heartland...

- Wichita ATMS Design • I-70 Kansas MIST Deployment •
- Western Iowa ITS Deployment • KC 511 Planning
- KC Scout Data Services • Gateway Guide TMC Staffing •
- Missouri Statewide DMS SOP • City of Wichita Signal Control •
- Omaha District Operations Center Design •
- Oklahoma ITS On-Call Services •

Lots to be seen at Booth #15!

- New services by Telvent DTN
- Live video of Interstate 70
- Fiber Manager
- Win a Highway Safety Kit!



Telegra

Telegra, Inc., is a leading provider of ITS solutions in the transportation industry, specializing in the design, manufacture, installation, and maintenance of a full suite of hardware and software products. For more than 20 years and 3,000 successful installations worldwide, Telegra has offered traffic management control devices and systems that are recognized for quality, exceptional durability,



TELEGRA

Smart Traffic Management®

longevity, and reliability. From LED Variable Message Signs, emergency roadside call systems, and roadside field controllers to our unique topXview Intelligent Traffic Manager™ systems for highways and tunnels, Telegra's products feature state-of-the-art technology

and are engineered for unsurpassed performance.

For additional information visit www.telegra-inc.com.

10 years of...

ITS Heartland Chapter

GROWING STRONG

Come

Celebrate our

10th Anniversary!

*Enjoy a fun evening together...
food, drink, memories and laughter...*

- **Monday, March 30, 2009**
- **6-10pm**
- **Topeka Civic Theatre**
3028 SW 8th Avenue, Topeka, KS

6:00pm: Bar opens

6:30 - 7:30pm: Hors d'Oeuvres served, take a theatre tour, and visit the 10th Anniversary display and enjoy your colleagues!

7:30pm: *Laughing Matters* Comedy Improv Show - outrageous comedy sketches and audience participation games

Kick back, relax and enjoy yourself!

2 ITS-Help, LLC

2 ITS-Help, LLC is an organization that provides goods and services to the transportation industry. Specifically, 2 ITS-Help is the exclusive representative for Adaptive Micro Systems and their NTCIP compliant signs used for ITS applications, in both color and amber.



2 ITS-Help is also the exclusive agent for Zydax, which is the recognized leader in accurate environmental sensors through complete ESS systems used for both road and runway weather information systems.

2 ITS-Help also supports the industry we serve with project management, consulting, service contracts, and system management.

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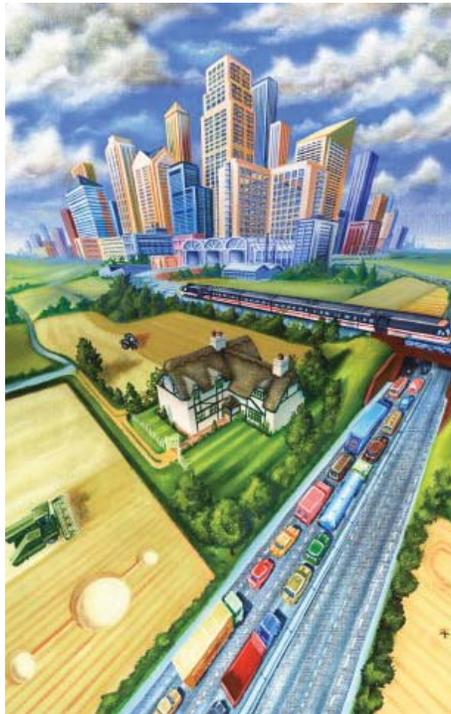
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