



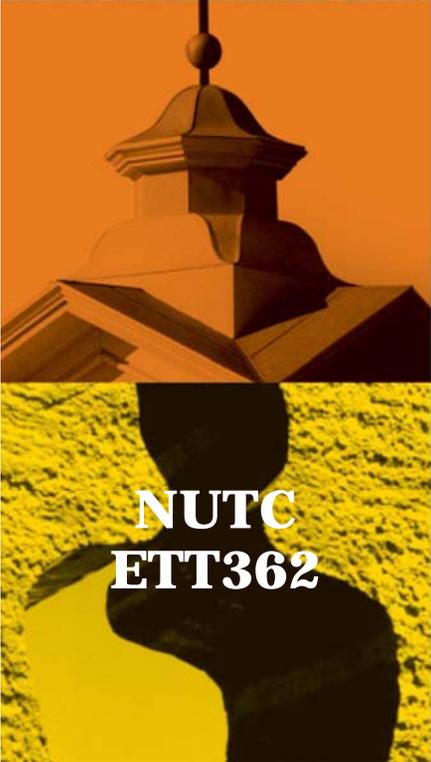
MISSOURI
S&T

CENTER FOR TRANSPORTATION INFRASTRUCTURE AND SAFETY

Second Annual Transportation Infrastructure Engineering Conference

by

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**NUTC
ETT362**

**A National University Transportation Center
at Missouri University of Science and Technology**

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16. Abstract The conference will highlight a few of the current projects that have been sponsored by the Center for Transportation Infrastructure and Safety (CTIS), a national University Transportation Center at S&T. In operation since 1998, the CTIS supports transportation-related research, education and technology transfer activities. It addresses state, local and national needs with the objective of advancing state-of-the-art transportation structures.			
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The second annual Transportation Infrastructure Engineering Conference was organized by the Center for Transportation Infrastructure and Safety (CTIS) and held in Jefferson City, MO at the Capitol Plaza Hotel on Friday, September 13, 2013. The conference was chaired by CTIS Director, Dr. K. Khayat and co-chaired by Mr. William Stone, the Research Administrator of Missouri Department of Transportation (MoDOT). Co-hosting the event with MoDOT and offering certificates for six Professional Development Hours helped attract a larger crowd of practitioners than the inaugural year. 135 people attended the event. Of those participants, 27% came from industry/other universities, 12% came from MoDOT, 14% were S&T faculty/staff and the remaining 46% was comprised of S&T students.

The event featured cutting edge research and field implementation projects in transportation infrastructure engineering. This year's conference showcased recent findings in the areas of advanced construction materials, non-destructive testing and structural health monitoring of transportation infrastructure.

Several keynote speakers addressed issues ranging from transportation policy to remote sensing technologies for civil infrastructure. Presentations were given by:

- K. Krishnamurthy, Vice Provost for Research, Missouri S&T
- Bill F. Spencer, Jr., Nathan M. and Anne M. Newmark Endowed Chair, Civil Engineering, University of Illinois, Urbana-Champaign
- Ed Hassinger, MODOT Chief Engineer
- Reza Zoughi, Schlumberger Endowed Professor, Electrical & Computer Engineering, Missouri S&T

Proceedings for this conference are in the form of CD-ROM containing the conference presentations. The conference program can be found on the last page of this report. The event will be held again the Fall of 2014 on the Missouri S&T campus.

An online survey was sent out to all of the conference participants to gain feedback about the event and how it can be improved next year. Excerpts from the survey are presented on the following pages. A sample of the individual comments regarding what the participants liked about the conference included:

"I liked the presentations, many had some very technical topics and level of detail and for the most part the presenters did an excellent job of explaining it in a way that could be understood. I was particularly pleased to hear University researchers describe the benefits and value of the research rather than only speak of the technical details. They have come a long way in the last few years of understanding implementable research and are doing a good job of coordinating with their customers. The organizers of the conference did a great job in getting the conference logistics together and because of that was a very informative and enjoyable day."

"Excellent presentations and organization of the conference"

"I liked the variety of topics"

"Industry Representation"

“Information on new techniques and possible future planning”

“The mix of attendees and the technical variety of presentation”

“Presentations were focused on innovation and covered a variety of areas.”

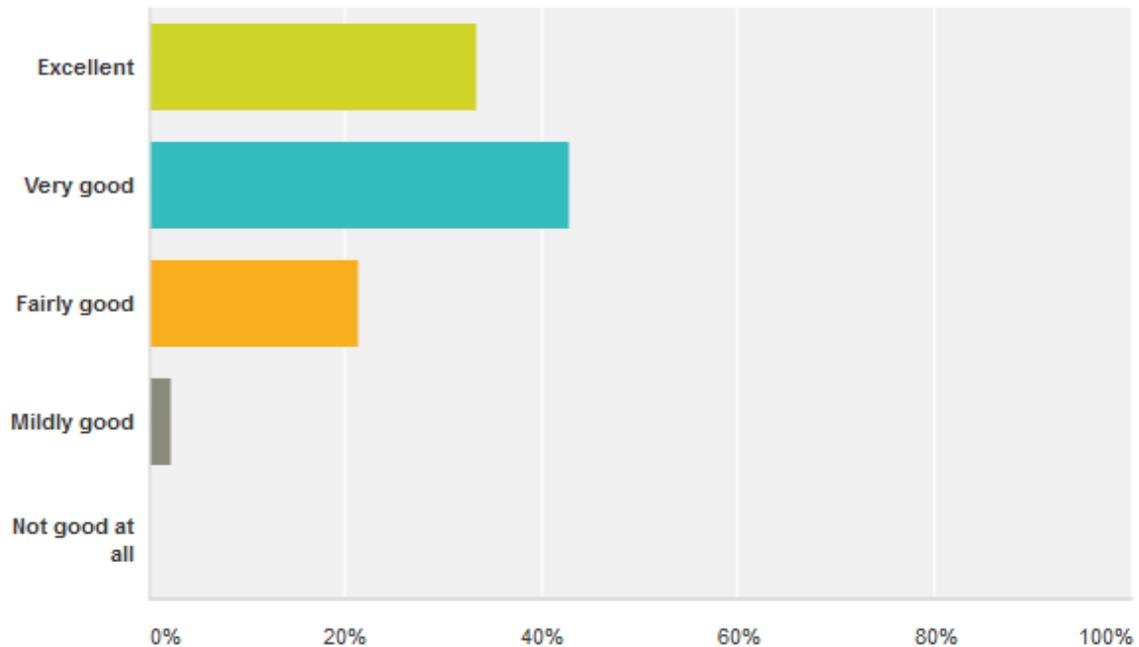
“Detailed presentations about the respective topics”

“I thought the practical presentations were very interesting, especially the ones on the MRB project and last one on bridge decks.”

“Field test and practical use presentations.”

Overall, how would you rate the CTIS/MoDOT Transportation Infrastructure conference?

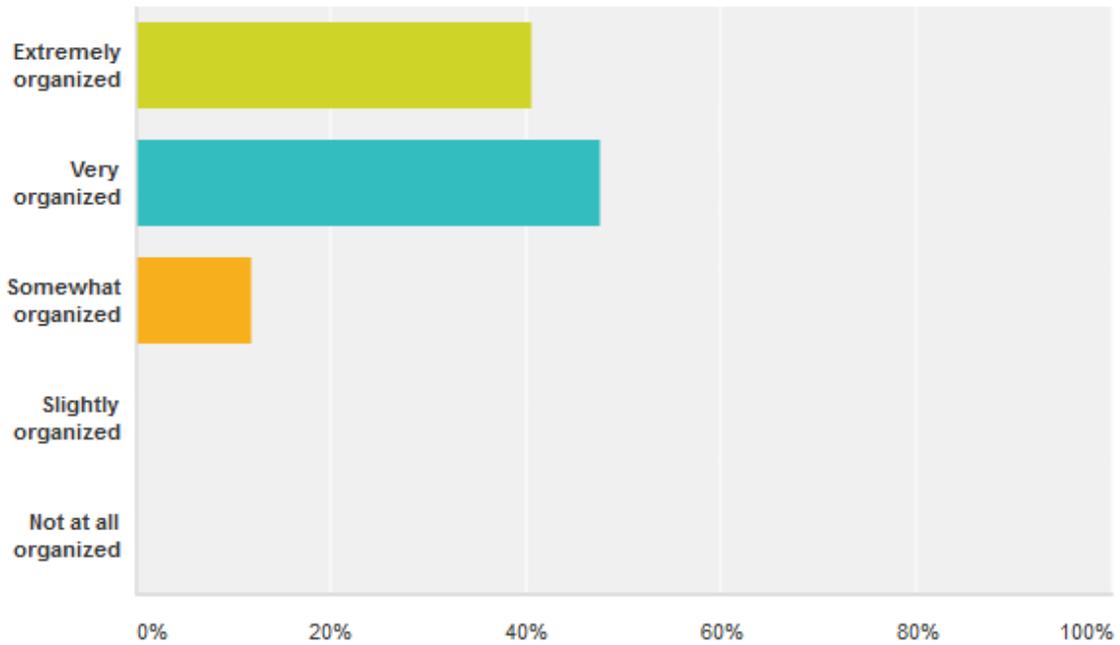
Answered: 42 Skipped: 1



Answer Choices	Responses
Excellent	33.33% 14
Very good	42.86% 18
Fairly good	21.43% 9
Mildly good	2.38% 1
Not good at all	0% 0
Total	42

How organized was the conference?

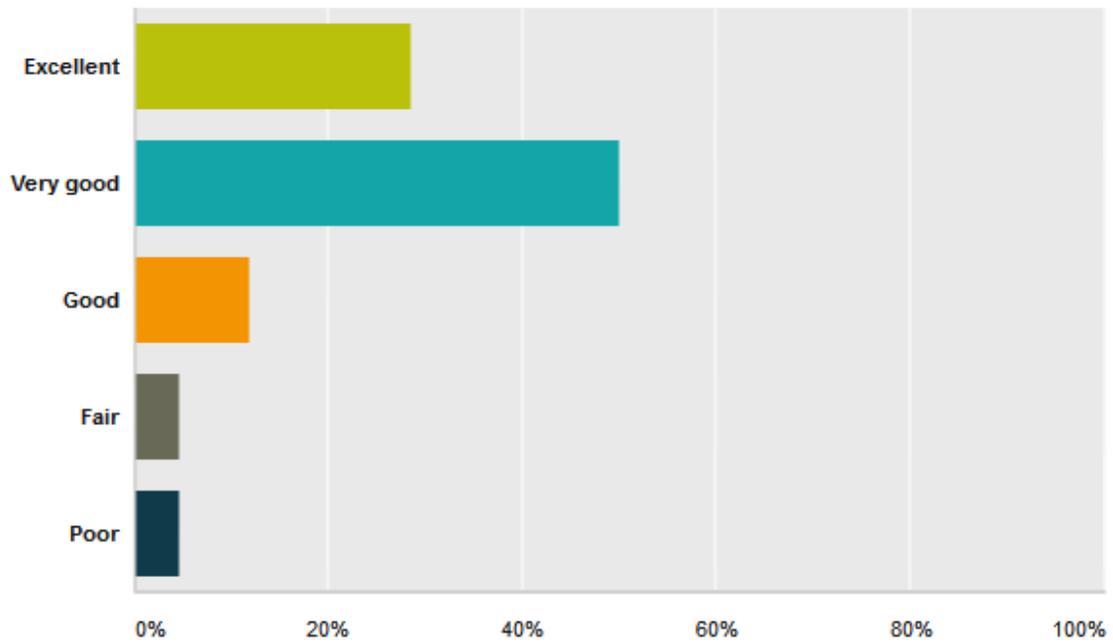
Answered: 42 Skipped: 1



Answer Choices	Responses	
Extremely organized	40.48%	17
Very organized	47.62%	20
Somewhat organized	11.90%	5
Slightly organized	0%	0
Not at all organized	0%	0
Total		42

How would you rate the presenter(s) at the conference?

Answered: 42 Skipped: 1



Answer Choices	Responses	
Excellent	28.57%	12
Very good	50%	21
Good	11.90%	5
Fair	4.76%	2
Poor	4.76%	2
Total		42

PROGRAM

Friday, September 13, 2013 • Capitol Plaza Hotel, Jefferson City, MO

9:00 – 9:20	Welcome - Kamal H. Khayat, Chairman and William Stone, Co-Chairman
	Opening Remarks - K. Krishnamurthy, Vice Provost for Research, Missouri S&T
Session #1: Structural Health Monitoring Moderator: Dave Ahlvers	
9:20 – 10:00	Keynote Speaker - K. Krishnamurthy, Vice Provost for Research, Missouri S&T Rising to the Challenge
10:00 – 10:40	Keynote Speaker - Bill F. Spencer, Jr., Nathan M. and Anne M. Newmark Endowed Chair, Civil Engr, UIUC Wireless Monitoring of Civil Infrastructure Comes of Age
10:40 – 11:00	BREAK
Session #2: Innovative Construction Materials Moderator: David Richardson	
11:00 – 11:20	Bridge On Arnault Branch, Washington County, Missouri <i>Genda Chen</i>
11:20 – 11:40	Use of High Strength Self-Consolidating Concrete and High Volume Fly Ash Concrete for Bridge Implementation <i>John Myers (Eli Hernandez, student co-presenter)</i>
11:40 – 12:00	Advanced Moisture Modeling of Polymer Composites <i>K. Chandrashekhara</i>
12:00 – 12:20	Pile Load Tests on Driven Piles for LRFD Guidelines <i>Ronaldo Luna</i>
12:20 – 1:30	LUNCH
Session #3: Mississippi River Bridge (MRB) Project Moderator: William Stone	
1:30 – 2:00	Keynote Speaker <i>Ed Hassinger, MODOT Chief Engineer</i>
2:10 – 2:20	MRB Project – MoDOT Perspective <i>Randy Hitt</i>
2:20 – 2:40	MRB Project – Contractor Perspective <i>Hyatt Bangert</i>
2:40 – 3:00	Performance of Concrete Made with Recycled Concrete Aggregate used at the MRB project <i>Kamal Khayat</i>
3:00 – 3:20	BREAK
Session #4: Non-Destructive Evaluation Moderator: Kamal Khayat	
3:20 – 3:50	Keynote Speaker - Reza Zoughi, Schlumberger Endowed Professor, Electrical & Computer Engr, S&T Broader Applications of Microwave Techniques for Structural Health Monitoring
3:40 – 4:10	Non-invasive Imaging and Assessment <i>Neil Anderson</i>
4:10 – 4:30	MoDOT Pavements Preservation Research Program <i>David Richardson</i>
4:30 – 4:50	Nondestructive Evaluation of MoDOT Bridge Decks <i>Lesley Sneed</i>
4:50 – 5:00	Closing Remarks – Kamal H. Khayat