Webinars To Disseminate Information and Results From University of Virginia and Virginia Polytechnic Institute Mid-Atlantic University Transportation Center Research Projects

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FINAL REPORT

WEBINARS TO DISSEMINATE INFORMATION AND RESULTS FROM UVA & VPI MID-ATLANTIC UNIVERSITY TRANSPORTATION CENTER (MAUTC) RESEARCH PROJECTS

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16. Abstract This report serves as documentation for the MAUTC project: "Webinars to Disseminate Information and Results from UVA and VPI MAUTC Research Project." The intention of the project is to enable the technical transfer of results from MAUTC-funded research projects conducted at the University of Virginia and Virginia Polytechnic Institute. A series of six webinars was organized with UVA researchers presenting in July, September, and November of 2014 and VPI researchers presenting in August, October, and December of 2014. The webinars featured 19 speakers and we had over 200 total attendees. A record of the webinars along with the presentations and recorded versions of four of the six webinars are found at: http://www.cts.virginia.edu/mautc/ .				
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ABSTRACT

This report serves as documentation for the MAUTC project: "Webinars to Disseminate Information and Results from UVA and VPI MAUTC Research Project." The intention of the project is to enable the technical transfer of results from MAUTC-funded research projects conducted at the University of Virginia and Virginia Polytechnic Institute. A series of six webinars was organized with UVA researchers presenting in July, September, and November of 2014 and VPI researchers presenting in August, October, and December of 2014. The webinars featured 19 speakers and we had over 200 total attendees. A record of the webinars along with the presentations and recorded versions of four of the six webinars are found at: http://www.cts.virginia.edu/mautc/ .

INTRODUCTION, PURPOSE AND SCOPE—THE PROBLEM

With the combined funds from VCTIR and MAUTC a series of six 90 minute webinars describing MAUTC research projects and results was organized. The intention is to reach an audience of VDOT and other government agencies as well as academics and private practitioners in Virginia and throughout the mid-Atlantic region. The emphasis is on the dissemination of research results and potential implementation. The webinars are a mix of presentation, answering participant questions, and discussion of the future implications of the research.

APPROACH AND METHODOLOGY

This section includes details of the technology selected, the webinar schedule, a description of the advertising undertaken, our effort at interactivity in the webinars, and the preparation of a Lessons Learned Document.

Technology Details: After our own review of webinar software and their advantages, we inquired from a National Highway Institute contractor about his preference/suggestion for webinars. Adobe's Web Connect software was chosen because it does not require participants to download anything and it features an event management system. Audio phone lines is another add-in and is provided by Arkadin. We were able to piggy back onto an Arkadin arrangement the company has arranged with webinar providers at UVA's Darden Business School. A company called Adobe Connect helped us with access and training for the Adobe software and the audio bridges. A UVA staff member has worked with Adobe Connect and the software systems functioned as the host for all six webinars. The event management system is used to develop advertising emails, collects registrations for each webinar, and sends reminders and post-webinar emails to registrants.

Webinar Schedule: Six webinars were scheduled for July-December of 2014. The series schedule is presented in Figure 1. As you can see from the schedule, two of the UVA webinars are based on one theme. The VT webinars and one of the UVA webinars feature two disparate speakers. Each webinar included an introduction, forty minutes of technical presentation, and questions and answers and/or discussion. Interactivity during the webinars is described below.

Advertising and Webinar Web Pages: We wanted to attract regional and possibly national audiences for the webinars. We used email lists maintained by the Virginia Transportation Training Academy (Virginia's LTAP) for non-VDOT Virginians interested in training. Virginia Tech forwarded advertisements with Virginia Tech. Penn State advertised for us using the MAUTC Facebook page and also forwarded the list of webinars to the Council of University Transportation Centers for advertising. An example email of August 12 is presented in Appendix A. Reminder emails sent the day before the webinar to registrants included a link to a web page with the webinar presentation slides. These web pages include an archive/recording of the webinar for four of the six webinars. These web pages can be found here: http://www.cts.virginia.edu/mautc/

Figure 1: Series of Six MAUTC Webinars July-December 2014

MAUTC WEBINAR SERIES—A series of webinars of Mid-Atlantic University Transportation Center (MAUTC) sponsored research. The webinar series was sponsored by MAUTC and VDOT and featured researchers from the University of Virginia and Virginia Tech. All webinars were scheduled on Thursdays from 2-3:30 pm ET. Anyone was invited to attend for free. Emails were sent monthly with registration links for future webinars.

July 17:
Brian Smith (University of Virginia), Robert Kluger (UVA), Ken Earnest (VDOT), Cathy McGhee (VDOT), Rick Dye (MSHA), Ram Jagannathan (Leidos): "Next Generation Traffic Management Centers"

August 21:
Feng Guo (Virginia Tech): "Development of Bayesian Multi-State Travel Time Reliability Models."
Gerardo Flintsch (VT): "Assessment of Splash and Spray Potential of Experimental Quiet Pavement Surfaces."

September 11:
Lindsay Ivey-Burden (UVA): "Technology Settlement Investigation using FutureScan"
Steven Chase (UVA): "Development of Thermoelastic Stress Analysis as a Practical Bridge Inspection Method"

October 9:
Pam Murray-Tuite (VT): "Winter Weather Demand Considerations for Network Performance Predictions."
Hesham Rakha (VT): "Development of Methodologies for Alternative Intersection Analysis."

November 13:
Devin Harris, Amir Ghetasi (UVA) "Implications of Damage and Deterioration on the Performance and Serviceability of Girder Bridges"

December 11:
Kyoungho Ahn (VT): "Developing a Real-Time Energy and Environmental Monitoring System."
Jianhe Du (VT): "Investigating Attractiveness of Tolling Roads."

Webinar Interactivity: The webinar polling function was used to survey participants throughout the webinar. At the beginning, we asked for the affiliation of the participants (VDOT, other state agency, federal, local government, academic, private, other). We also asked the participants about their familiarity with the subject (for example, their years of experience in bridge engineering or whether they are familiar with connected vehicle applications). The familiarity polls are likely to change with each webinar topic. At the end of the webinar presentation, participants were polled about implementation—one poll about whether they think that the research is ready to be implemented and a separate poll asking whether the participants anticipate being involved in the implementation of a similar project and during what time frame.

Lessons Learned Document: A Lessons Learned document is presented in Appendix B. Conclusions and recommendations based on these lessons learned are presented below.

RESULTS AND DISCUSSION

Figure 1 lists the dates of the six webinars and the featured presenters.

There is some start-up time required with acquiring the software, familiarizing ourselves with the technology, organizing the webinar series schedule, and learning from conducting the first two webinars. Coordinating activities between UVA and VT turned out to be not very difficult. We gained a comfort with presenting webinars that can be transferred to other projects and shared with other entities. To date we have used the software to present MATS UTC activities (the new regional University Transportation Center) and we will use it for an upcoming webinar for TRB's Education and Training Committee.

The number of registrants, logged on participants, and attendees for the six webinars are presented in Table 1.

Table 1 Number of Webinar Registrations and Number of Participants

Date	Host	Topic	Registered	Logged On	Participants*
7/17/14	UVA	Next Generation Traffic Management Centers	70	33	70
8/21/14	VT	Travel Time Reliability/Quiet Pavement Surfaces	17	11	30
9/11/14	UVA	FutureScan/Practical Bridge Inspection	29	14	20
10/9/14	VT	Winter Network Performance/Alternative Intersection Analysis	49	22	31
11/13/14	UVA	Damage and Deterioration of Girder Bridges	69	25	42
12/11/14	VT	Energy and Environmental Monitoring/Road Tolls	44	26	36

*Participant numbers are derived from the numbers logged in and the survey response about how many are viewing the webinar (by yourself, with 1-3 others, with more than four others).

The webinars provide a way to share research results without requiring participants to read a report. With the webinar, the presenters can share highlights of their research and they can learn from the participants who share their knowledge and opinions through the chat box and with their responses to poll questions. We have learned from at least one presenter that this is preferred compared to the efforts put into a report that may not be widely read.

CONCLUSIONS AND RECOMMENDATIONS

We learned from holding all six webinars about the timing of advertisements, about format (one topic vs. two topics), and how to hold webinars with a minimum of technical problems. The Lessons Learned document presented in Appendix B provides some lessons learned.

Much of this project is the preparation required before the webinar series starts. We developed a process that others can follow. A benefits assessment is presented below. For this initial series, recruitment of presenters and participants was difficult. But the presenters and participants had positive experiences suggesting that webinars are a good outlet for the technical transfer of university transportation center projects. Ideally, as development and delivery of webinars becomes more routine and as more of our potential audience realizes the value in learning by webinars, then webinars will become more and more attractive as a tech transfer tool. By providing the presentations and recorded webinars on a web page, the topics have a longer shelf life than just the 90 minute webinar time.

BENEFITS ASSESSMENT

This project supports the dissemination of current MAUTC technical research efforts. Through marketing of the webinar, providing links to project resources in the marketing materials and during the webinar, and the presentation during the webinar and the potential webinar interactivity, we anticipate a much broader dissemination of research results compared to the current process of only submitting project reports.   Webinars allow questions and discussion. We expect that there will be great interest among a large audience in learning about the results of research from the comfort of offices and local seminar rooms without requiring travel of either the presenters or participants. We anticipate that, after the first series, the webinars may be expanded to include research results of additional projects and additional universities. The webinar series example may be followed by other universities within MAUTC and at other University Transportation Centers.

We have also heard from presenters that presenting the information to the people who logged in and interacting with them was a positive and satisfying experience compared to only writing a report that may not be read. For the participants, this is a chance to ask questions in real time, interact with project sponsors, and get a short synopsis of the project without reading. There is also the advantage of scheduling when someone will pay attention to the topic rather than giving them a report that they will read when they have time.

APPENDICES

Appendix A: Advertising email sent August 12, 2014

Appendix B: Lessons Learned

Appendix A: Sample Advertising Email Sent August 12, 2014

MAUTC Webinar, August 21 2pm:

Development of Bayesian Multi-State Travel Time Reliability Models

Assessment of Splash and Spray Potential of Experimental Quiet Pavement Surfaces

This is the second of a series of six webinars hosted by the Mid-Atlantic University Transportation Center showcasing MAUTC research conducted at the University of Virginia and Virginia Tech.

This webinar is free and open to everyone. Please forward this notice to anyone you think may be interested. Many thanks!

To register now, please visit the following link: https://transportationtrainingacademy.adobeconnect.com/webinar2/event/registration.html

2:00 - 2:25 Development of Bayesian Multi-State Travel Time Reliability Models (The objective of this project is to develop a Bayesian multi-state travel time reliability approach for modeling travel time uncertainty under various traffic conditions) - **Feng Guo (VT)**

2:25 - 2:45 Discussion

2:45 - 3:10 Assessment of Splash and Spray Potential of Experimental Quiet Pavement Surfaces (The project will develop capabilities for testing splash and spray in the state and compare the splash and spray potential of VDOT traditional and innovative pavement surfaces) - **Gerardo Flintsch (VT)**

3:10 - 3:30 Discussion

This webinar is sponsored by the Mid-Atlantic University Transportation Center and matching grants from the Virginia Department of Transportation. We plan additional webinars on the second Thursday of each month of 2014. Future webinars include:

September 11:
Lindsay Ivey-Burden (UVA): "Technology Settlement Investigation using FutureScan"
Steven Chase (UVA): "Development of Thermoelastic Stress Analysis as a Practical Bridge Inspection Method"
Register: **https://transportationtrainingacademy.adobeconnect.com/webinar3/event/event_info.html**

October 9:
Pam Murray-Tuite (VT): "Winter Weather Demand Considerations for Network Performance Predictions."
Hesham Rakha (VT): "Development of Methodologies for Alternative Intersection Analysis."
Register: **https://transportationtrainingacademy.adobeconnect.com/webinar4/event/event_info.html**

November 13:
Devin Harris (UVA) et al.: "Implications of Damage and Deterioration on the Performance and Serviceability of Girder Bridges"
Register: **https://transportationtrainingacademy.adobeconnect.com/webinar5/event/event_info.html**

December 11:
Kyoungho Ahn (VT): "Developing a Real-Time Energy and Environmental Monitoring System."
Jianhe Du (VT): "Investigating Attractiveness of Tolling Roads."
Register: **https://transportationtrainingacademy.adobeconnect.com/webinar6/event/event_info.html**

Event: MAUTC Webinar August 21
When: Thursday 21 August 2014, 02:00 PM - 03:30 PM
Time Zone: (GMT-05:00) Eastern Time (US and Canada)
Audio Conference Details: Audio Conference Details:

Participant pin code : 93886803
Other access numbers : https://wip.arkadin.com/mobile/GlobalNum.aspx?
P=FnIuYSYxAkEdSwZEWE4vckthfTF3QUZLUUQHTnRyeGF1MXhBcksxRGFOCHIFYUQxd0FBS1lECU53cnNhdDF9QQ==&AC=1

Conference Number(s):

Toll access number : 1-646-560-7802
Toll free access number : 1-888-407-5039

To register now, please visit the following link:

https://transportationtrainingacademy.adobeconnect.com/webinar2/event/registration.html

To know more about the event, please visit our website:

https://transportationtrainingacademy.adobeconnect.com/webinar2/event/event_info.html

Thank you,
UVA Center For Transportation Studies

Appendix B: Lessons Learned

Scheduling:

- It was more difficult than expected to convince Principal Investigators that they should present their research during a webinar. Part of this is conflict with the webinar time and part of it seems to be a reluctance to talk about their research.
- The series included webinars with one main topic and several speakers and several webinars with two or more topics.

Participation:

- Participation was stronger than expected. The webinar providers explain that getting half of registrants to attend is a successful webinar. For the first two webinars, over 80% of the registrants have joined the webinar and have stayed the whole time on the webinar.
- Virginia Tech has hosted these as seminars/webinars. 11 came to first webinar. 20 to second webinar. There is some appeal to watching together as a group— especially with an in-person presenter.
- Interest among the participants in receiving continuing education credit. 8 participants of first webinar asked for certificates of participation to be emailed to them.
- Participants of the first webinar asked for the slides of the presenters. Web pages of the presentations were developed for each webinar and the web page with the presentations was distributed in the reminder for the subsequent webinars sent the day before the webinar. The web page also includes a recording of four of the six webinars. These web pages are found at: http://www.cts.virginia.edu/mautc/

Technology details:

- It has helped to have one person dedicated to the technology. Our license allows multiple hosts but UVA acted as host for all six webinars.
- Audio phone connections require a separate add-in to the webinar software incurring per line per minute usage fees. The fees are small but this generated some excitement in the days leading up to the first webinar.
- We paid for a one-year fee for the webinar software and accompanying event management system. Telecommunications fees are charged per line per minute. Our license is for up to 100 simultaneous users. We paid for non-expiring "burst" minutes to be used when more than 100 users join at once. The burst minutes were not used for the MAUTC webinar series.

Interactivity

- Participation was stronger than expected during the first webinar and most of the webinars. A significant percentage of participants responded to the polls during the webinar and typed responses and questions into the chat box.

- There was less participation during the second webinar. Organizers did not work as closely with the presenters on appropriate questions to ask of participants.

- Virginia Tech succeeded in hosting a room of people during the webinars. For most of the Virginia Tech speakers, this seemed like a "normal" seminar talk that was also broadcast nationally. But the room of participants also convened when presenters were remote—either at Virginia Tech North or at UVA. There is some value to acquiring the webinar information as a group.

- We experimented with multiple choice polls and with allowing open-ended answers in the chat box. Both interactivity methods seem worked better than expected during first webinar. Most of the other webinars only employed multiple choice polls.

- Part of the challenge is for speakers to provide poll questions that lead to unexpected results. Learning how the participants responded to the questions in the first webinar (their answers were unexpected to the presenters) was a significant part of the information exchange—the presenters learned from the participants in addition to vice versa.