

NEW JERSEY STATE TRANSPORTATION INNOVATION COUNCIL www.NJDOTtechtransfer.net/NJ-STIC

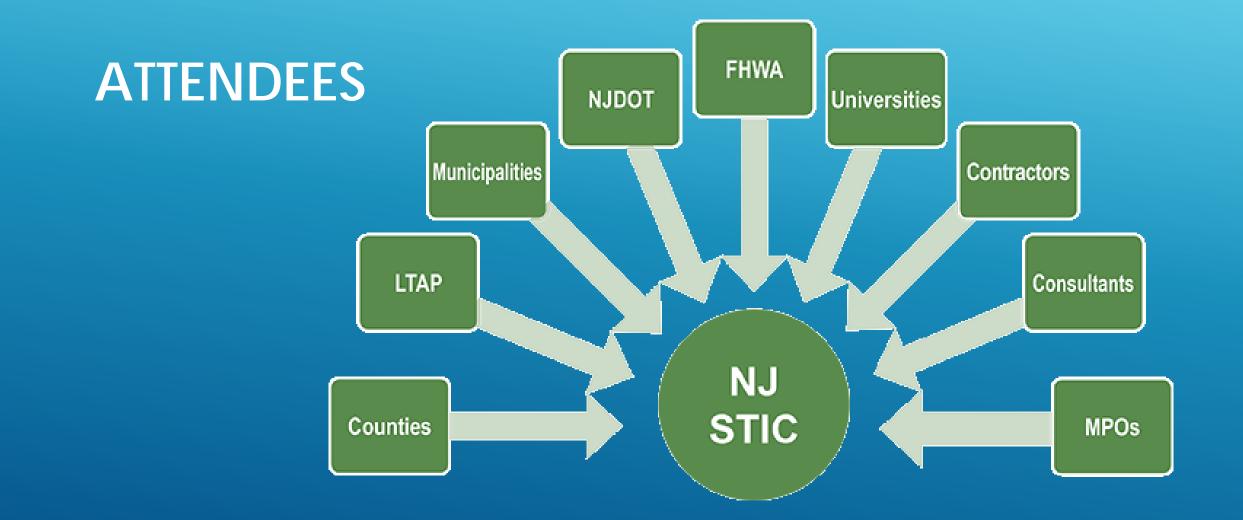
3RD Quarterly Meeting September 15th, 2021



WELCOME

Mike Russo Assistant Commissioner NJDOT Planning, Multimodal & Grant Administration







FHWA UPDATES

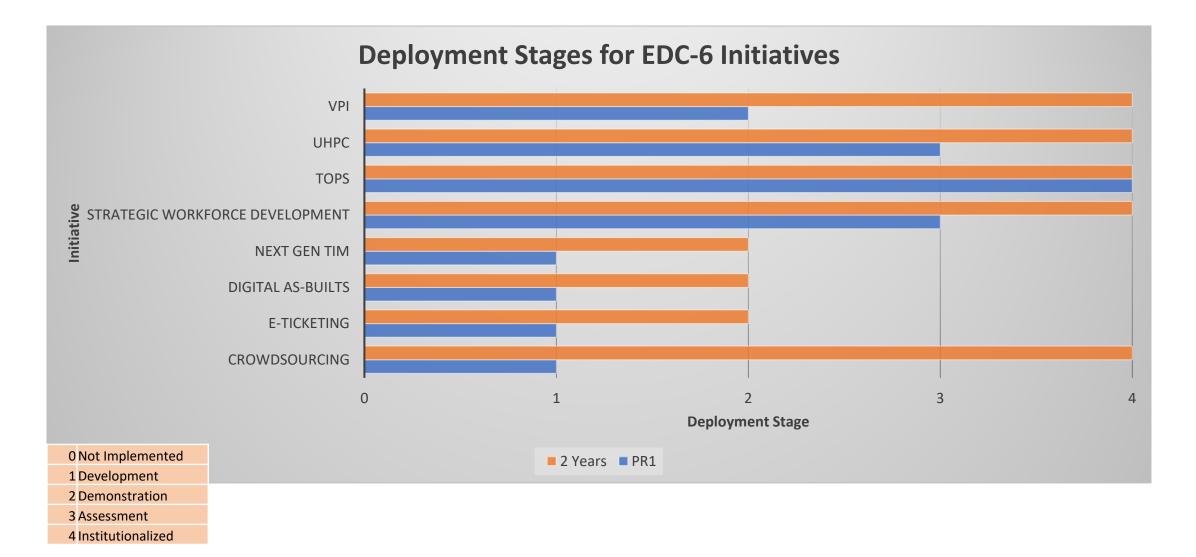


Helene Roberts, P.E. Innovation Coordinator & Performance Manager FHWA, NJ Division Office



EDC-6 Progress Report #1

EDC-6 Deployment – Progress Report #1





Let's Go! Pilot Workshop September 21 and 28

CIA TEAM SAFETY

NJDOT – Dan LiSanti FHWA – Keith Skilton CORE INNOVATION AREA REPORTS

CIA TEAM INFRASTRUCTURE PRESERVATION

NJDOT – Bob Signora FHWA – Nunzio Merla

CIA TEAM MOBILITY & OPERATIONS

NJDOT – Sue Catlett FHWA – Ek Phomsavath CIA TEAM ORGANIZATIONAL IMPROVEMENT & SUPPORT NJDOT – Zenobia Fields

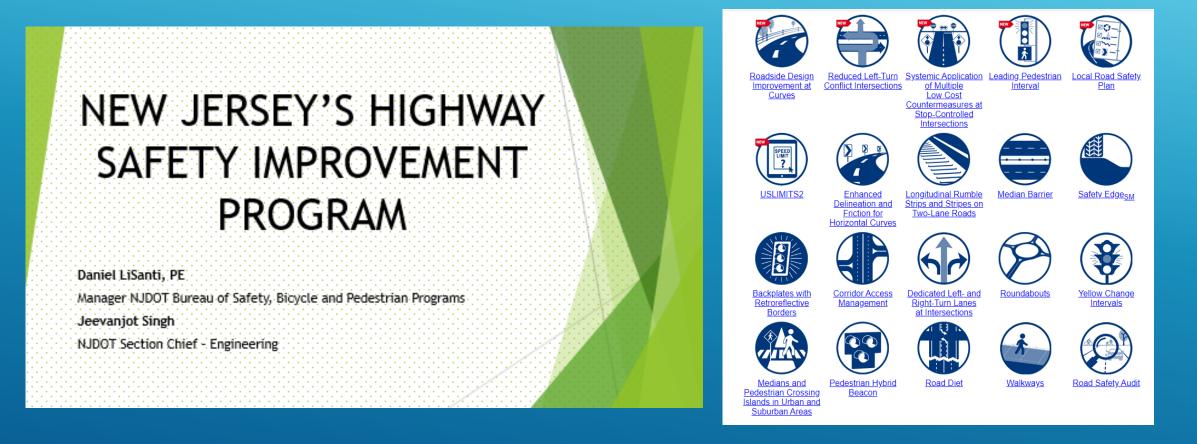
FHWA – Brian Goodson

CIA TEAM SAFETY

NJDOT – Dan LiSanti FHWA – Keith Skilton

EDC – 5

Reducing Rural Roadway Departures



EDC – 5

Safe Transportation for Every Pedestrian (STEP)





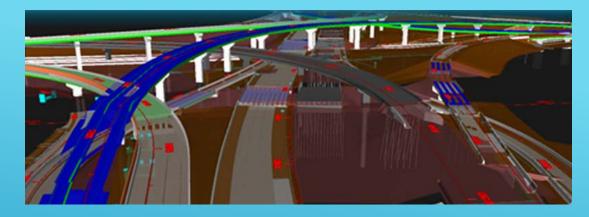
QUESTIONS?

CIA TEAM INFRASTRUCTURE PRESERVATION

> NJDOT – Bob Signora FHWA – Nunzio Merla



Digital As-Builts



Purpose: To explore the use of 3D models to build projects and update that digital information to reflect the project's as-built condition

- Team is still gathering information (potential issues, lessons learned) from designers, SMEs, etc.
- Based upon what's learned, Team is planning on 2 pilot projects to test the technology
- Team will attend the "Let's Go! Innovation Workshop" scheduled for September 21st and 28th

e-Ticketing

EDC - 6



Purpose: Provide stakeholders with an electronic means to produce, transmit, and track and verify materials deliveries

- Effort in Development Stage
- Two Vendors have given presentations to date. Continuing to reach out to other Vendors for future presentations.

EDC - 6

Targeted Overlay Pavement Solutions (TOPS)



Purpose: To develop and install overlays that provide long-life performance under a wide range of traffic, environmental, & existing pavement conditions

- Continued use of TOPS treatments. 2 HPTO projects awarded (June 2021).
- Working on developing SFY2023/2024 preservation projects which will include additional TOPS treatments. Continuing investigation of some HPTO failures.
- Hope to identify candidate project(s) for HiMA (Ultra-HPTO) soon and implement this TOPS treatment.
- Nusrat Morshed will be taking over as the Innovation Champion.

EDC - 6

UHPC for Bridge Preservation and Repair



Purpose: To explore the use of UHPC for Bridge Preservation and Repair.

- Funding secured for testing program of UHPC overlays and notice to proceed was issued.
- Provided presentation at the International Bridge Conference (IBC) per an invite from FHWA.
- Team presently preparing for hosting 2 upcoming workshops.
- Hosting FHWA EDC-6 workshop in October, 2021. Also, participating in NJLTAP workshop with a presentation to support local and municipal agencies efforts in UHPC P&R adoption and implementation.
- Milestone: 1st NJDOT UHPC link slab application is in construction phase.



QUESTIONS?

CIA TEAM MOBILITY & OPS

NJDOT – Sue Catlett FHWA – Ek Phomsavath

EDC-6: Next-Generation TIM: Integrating Technology, Data, and Training

NJDOT collaborating with NJSP

- Computer-Aided Dispatch (CAD) integration project
- CAD integration into traffic operation centers to improve incident response and quicker clearance.
- NJSP has commenced installation of the new CAD system.

"Development" Stage

- Assembled a team
- NJ State Police have deployed a new CAD system
- Need to determine the data types/interface format of the new CAD system



EDC-6: Crowdsourcing for Advancing Operations

NJDOT partnering with Waycare

- Pilot project
- Support/improve operations of traffic incident management (TIM) and traffic operations centers (TOCs)

"Development" Stage

- Awarded the STIC Incentive funding (\$55,000)
- Federal authorization of funds
- Status of procurement





QUESTIONS?

CIA TEAM Organizational Improvement & Support

NJDOT – Zenobia Fields FHWA – Brian Goodson

Virtual Public Involvement

The Evolution of Virtual Public Involvement (VPI) During the Pandemic: State Transportation Agency Practices & Lessons Learned.







- Platform Choice Matters stakeholder vs. public
- Prepare Team provide clear instructions to presenters/organizers/moderators.
- Underserved Populations think outside the box!
- Information Sharing & Feedback provide a variety of ways to share information and gather feedback.
- Duration advertise start time but not end time, shorter meetings.

Strategic Workforce Development



- I. Fostering Partnerships
 - Raise Awareness and Foster Healthy Attitudes Towards Construction Careers
 - ✓ Build Capacity in the Highway Contractor Workforce
 - ✓ Utilize Industry Accredited Pre-Employment Training Programs
 - Provide a Pathway to Apprenticeship and Jobs



II. Let's Go! Pilot Workshop – Succession Planning Efforts
 a. Confirmed September 21st





QUESTIONS?

Feature Presentation Safety Voyager Peter Brzostowski NJDOT Proj. Engr. Planning | Crash Records Bureau of Transportation Data & Support

Safety Voyager - STIC - v2.0.mp4

NJ STIC Communications Plan

David Aimen

Asst. Director, Planning & Technical Assistance Rutgers University, Alan M. Voorhees Transportation Center

NJ STIC COMMUNICATIONS PLAN (FY20)

- STIC Incentive Grant Funded
- For NJDOT's Bureau of Research
- Major Tasks
 - Prepare Plan
 - Tools Development
 - Innovative Initiatives Priority
 Topic Interviews
 - Support Break-Out Sessions



NJ STIC Charter - Mission



MISSION

...identify, evaluate and rapidly deploy new technologies and process improvements that will accelerate project delivery and improve the safety and quality of transportation in NJ.

Purpose of Communications Plan

...foster a culture favorable to exploring and advancing innovations in transportation

...improve effectiveness of NJ STIC through continuing communications and engagement with STIC stakeholders...



MISSION

Organizational Framework of NJ STIC

ORGANIZATION FRAMEWORK

NJ State Transportation Innovation Council (STIC)

EXECUTIVE TEAM

Manages STIC Operation Point for reporting to Assistant Commissioner & FHWA Coordinates with all groups Innovation Advisory Team

Core Innovation Area Infrastructure Preservation Core Innovation Area

Safety

Core Innovation Area

Mobility & Operations **Core Innovation Area**

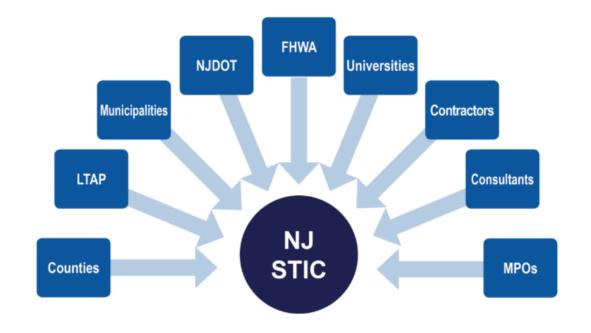
Organizational Support & Improvement

Audience



Different communications are needed to reach various:

- NJ STIC Members
- External Audiences



NJ STIC Membership

Identifying Innovative Practices



Featured Presentations STIC Meetings

PAVEMENT PRESERVATION ON HIGH TRAFFIC VOLUME ROADWAYS – WHEN, WHERE & HOMS

NJ State Transportation Innovation Council (STIC) Summer Meeting, June13, 2018

EDC INNOVATIONS - THE LOCAL PERSPECTIVE

Deanna is joined by: Princeton Deanna Stockton

Joe Ettore, Monmouth Co. Vince Cardone, Monmouth Co. Dan Burke, Jackson Township Clint Dicksen, Fanwood/Garwood Heather Vitz-Del Rio, Wayne Township



FEATURE PRESENTATION: MPO IMPLEMENTATION

VIRTUAL PUBLIC INVOLVEMENT









Identifying Innovative Practices

STIC Virtual Meetings & Workshops





NJ STIC EDC-6 CAUCUS December 14th, 2020

STIC Caucus Summary EDC-6 –Break-Out Sessions

Submitted by: Alan M. Voorhees Transportation Center Edward J. Bloustein School of Planning and Public Policy Rutgers, The State University of New Jersey

> Submitted to: NJDOT Bureau of Research



Identifying Innovative Practices

- Local Public Agency: Innovative Initiatives Survey
- Priority Topics Key Informant Interviews
- FHWA EDC Semi-Annual Progress Reports
- NJDOT Innovative Ideas Database
- NJDOT Tech Transfer Quarterly Meetings
 - Research Showcase
 - Tech Talks!





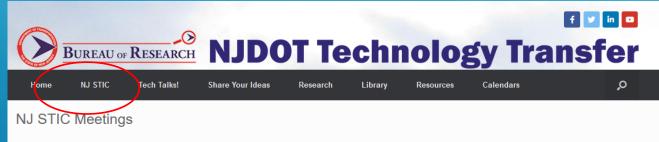
Innovative Initiatives Survey

We request your assistance in identifying examples of successful implementation of Every Day Counts (EDC) initiatives and other innovative practices in transportation. Please complete a 10-15 minute survey here: <u>New Jersey STIC Innovative Initiatives</u>





NJDOT Technology Transfer Website – NJ STIC: <u>https://www.njdottechtransfer.net/nj-stic/</u>



NJ STIC meets regularly to advance the identification, evaluation, and rapid deployment new technologies and process improvements to accelerate project delivery and improve the safety and quality of transportation in New Jersey.

Information from recent NJ STIC meetings can be found below

NEW JERSEY STATE INANSPORTATION INNOVATION COUNCIL www.kickingware.wiki.ik. 2ND Quarterly Meeting June 16th, 2021	New JERSEY STATE TRANSPORTATION INNOVATION COUNCIL www.toChardwardwards. 15T Quarterly Meeting March 29th, 2021	NUM JESSY STATE TRANSPORTATION INNOVATION COUNCE FALL Quarterly Meeting November 4. 2010	A CONTRACT OF A
NJ STIC 2nd Quarter 2021 Meeting	NJ STIC 1st Quarter 2021 Meeting	NJ STIC 2020 Fall Meeting	NJ STIC 2020 Spring Meeting
The New Jersey Stat Transportation Innovation Council (NJ STIC) held its second quarterly meeting of 2021, discussing updates on innovative initiatives	The NJ State Transportation Innovation Council (NJ STIC) 1st Quarter 2021 Meeting, held on March 29, 2021, focused on the advancement of the EDC-6 Innovative	The NJ State Transportation Innovation Council (NJ STIC) Fall 2020 Meeting, held on November 6, 2020, focused on the introduction of EDC-6 Innovative Initiatives and	The NJ State Transportation Innovation Council (NJ STIC) Spring 2020 Meeting on May 6th focused on the EDC-5 Innovative Initiative Virtual Public Involvement. The topic



Innovative Initiatives

STIC Quarterly Meetings



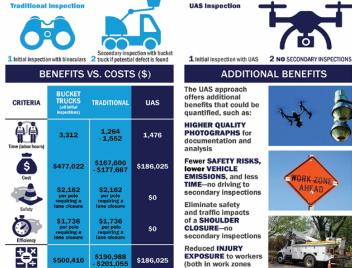


SPOTLIGHT ON INNOVATION: UNMANNED AERIAL SYSTEMS (UAS) High Mast Light Pole Inspections

Comparative Analysis

INTRODUCTION

Unmanned Aerial Systems (UAS), or drones, are multi-use aircraft controlled from the ground by a licensed operator. They can be used in nearly all aspects of highway transportation-they replace boots on the ground, increase accuracy, speed up data collection, and provide access to hard-to-reach locations. Here's a look at a NJ DOT research study that compared the relative benefits of using UAS versus visual inspections methods for the structural inspection of 244 of its high mast light poles.



















Crowdsourcing for Operations

What is Crowdsourcing for Operations?

Crowdsourcing turns transportation system users into real-time sensors on system performance, providing low-cost, high-quality data on traffic operations, roadway conditions, travel patterns, and more.

Three common acurosa of provelacuroed data include social media platforms, third-party provideource providers, and specially developed mobile appa. Because crowdsourced data are gathered as people travel, agancies can capture in real time what happens between senaors, in rural regiona, along artariala, and beyond juriadictional boundaries. Crowdsourced data can often be accessed by traffic management centers (TMC) with minimal or no time lags, and it does not suffer from local sensor or system outsides.

When combined with traditional data, crowdaouroing helps agencies implement proactive strategies that improve incident detection, traffic signal retiming. road weather management, traveler information, and other operational programs. Agencies can make roadways safer and more reliable, improve operational efficiency, and support cost-effective monitoring through prowdsourcing for operations.

Crowdsourcing can also be used to promote acceptance of public decisions, improve transparency and efficiency of public expenditures, and foster traveler autofaction with transportation services.

BENEFITS

Improved Operations, Crowcisourcing enables agency staff to provide better traveler information and more proactive and effective operations strategies that can lead to recluced traffic congestion

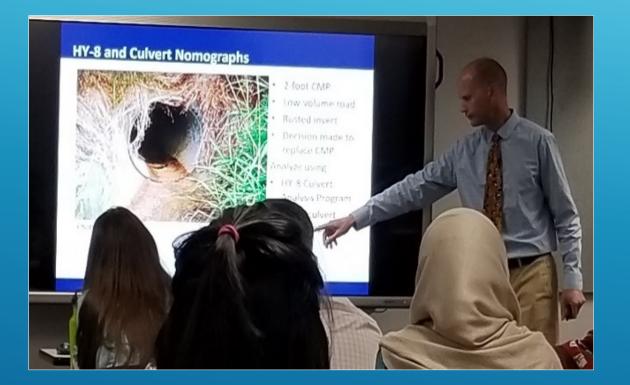


Increased Safety and Reliability, Crowdsourcing allows agancy staff to identify problems more quickly and confidently, leading to faster and more accurate responses to traffic incidents and other condection-causing events, which in turn reduces the likelihood of secondary crashes and improves travel reliability.

Opet Savings. Crowdsourcing is cost-effective and could reduce the need for additional roadway sensors and equipment that require installation and maintanance. In addition, prowdsourcing allows agancies to leverage and more effectively use their existing intelligent transportation systems infrastructure.

STIC Fact Sheets

Infographics



Lunchtime and Other Tech Talks! Webinars



LUNCHTIME TECH TALK — EDC-5: Weather-Responsive Management Strategies



Tuesday, April 14, 2020 | Time: 12:00 - 1:30 PM







Unmanned Aerial Systems (UAS)



Local Safety







Peer-to-Peer Exchange New Jersey, Georgia, Indiana, and Ohio Departments of Transportation and Kentucky Transportation Cabinet Trenton, New Jersey June 11–12, 2019

E-Construction



Videos









Calling All Innovators!

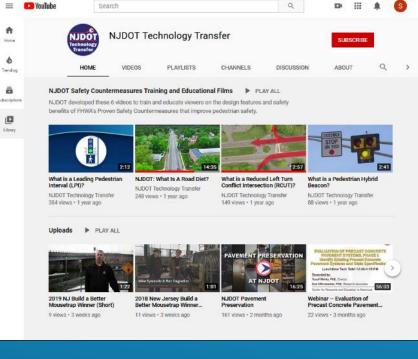
The 2021 Build a Better Mousetrap Competition Has Begun!

New Jersey's <u>Build a Better Mousetrap Competition</u> provides a great opportunity to share new videas with others in the state and across the country. We are looking for submissions from employees of local or state public agencies (municipalities, counties, parks commissions, NJ Department of Transportation, NJ TRANSIT) that have developed new solutions to problems or found better ways of doing things. We will gather the best ideas from around the state and judge them using a 5-point rating system.

Read more about the 2021 BABM winners (and see the video!) and learn about winners from years past.



Tech Transfer News – STIC Articles





Good afternoon, NJ STIC Members and Friends!

In case you may not have seen it....AASHTO's Innovation Initiative seeks to accelerate the adoption of proven innovations nationwide. Their <u>call for nominations</u> may be of interest for the recognition and resources it can bestow.



Social Media

STIC Mailing List & E-Mail Blasts







NJ STIC Communications Tools

Table 1. Communications Tools and Frequency

NJ STIC Communications Tool		Frequency									
STIC Meetings	Quarterly	Quarterly									
LPA Presentations at STIC Meetings	Quarterly	Quarterly									
STIC Workshops at Quarterly Meetings	Annually	Annually									
NJDOT Innovative Ideas Database	Quarterly update to database; Disseminate regularly										
STIC Webpage	Table 2. Recent and Proposed Communications Strategies										
STIC Webpage - Innovative Initiatives		Initiative	Status				Tools			_	
Innovative Initiatives Updates: EDC Progress Reports	Торіс			Article	Fact	Info-	Tech	Peer	Video	Г	
Innovative Initiatives: LPA Surveys					Sheet	graphic	Talk!	Exchange	Video	L	
Innovative Initiative Priority Topics: Key Informant Interviews					INFRASTRUCTURE						
Innovative Initiatives - New and Noteworthy Posts	A-GaME Advanced Geotechnical Methods in Exploration	EDC-5	Demonstration (June 2020)	х							
	Collaborative Hydraulics (CHANGE)	EDC-4 EDC-5	Demonstration (June 2020)	х			x				

E-Construction &

e-Ticketing and

Digital As-Builts

Reinforced Soil-

Integrated Bridge

System (GRS-IBS)

Geosynthetic

Partnering

Demonstration

(December

2018)

New

Demonstration

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Х

х

Х

EDC-3

EDC-4

EDC-6

EDC-1

EDC-3



Next Steps

Send notice of online webinar

Send notice of online training

Create innovative initiative

Send notice of online training

page. Track progress.

availability

availability

availability

STIC

email

Х

Х

Х

NJ STIC Communications Tools

Suggestions? Innovation Topics to Share?

Please contact:

Amanda Gendek, NJDOT Bureau of Research (609) 963-2242

or ideas@njdottechtransfer.net



NJ STIC Communications Plan: An Interactive Polling Exercise

Go to www.menti.com and use the code 6729 7667





REMINDERS & ANNOUNCEMENTS

NJDOT Tech Transfer Website <u>www.njdottechtransfer.net</u>

NJ STIC Website <u>www.njdottechtransfer.net/nj-stic/</u>

All meeting recordings, presentations, and summary are posted https://www.njdottechtransfer.net/nj-stic-meetings/

March 2021 Issue NJDOT Tech Transfer News

Calling All Innovators!!

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Read more shoul the 2221 BABII winners (and see the video) and learn about winners from years past.



December 2020 Issue NJDOT Tech Transfer News

The NJ Transportation Research Ideas Portal is Still Open - But this Round will be Ending on December 31st!





22nd Annual NJDOT Research Showcase

December 2020 NJDOT Tech Transfer News







more about the talk or register here. Also check out out calendar for other events

DEADLINE EXTENDED TO OCTOBER 1st!

September 2020 Issue

NJDOT Tech Transfer News

Join the NJDOT Bureau of Research on

October 7th for a Lunchtime Tech Talk!

Webinar on Analysis of Local Bus Markets

Assistant Director, Research at Rutgers - Alan M. Voorhees

Transportation Center (VTC) and Susan O'Donnell, Senior

riders constitute almost 60% of all riders using the agency's

This Lunchtime Tech Talk! webinar will feature Deva Deka. Ph.D.

Director, Business Analysis and Market Research at NJ TRANSIT

NJ TRANSIT operates nearly 250 bus routes throughout NJ. Bus

services. For many, these buses are essential for meeting almost

all their daily travel needs. This webinar will present information

the state --- work conducted by VTC for projects funded by the

The event is free, but registration is required to receive a link to

the webinar and to be eligible for NJ AICP and PE credits. Read

NUDOT Bureau of Research and sponsored by NJ TRANSIT

drawn from five years of onbeard surveys of bus riders throughout



September 2020 NJDOT Tech Transfer News

June 2020 Issue NJDOT Tech Transfer News



LUNCHTIME

TECH TALKS!

NJ STIC 2020 Spring Meeting

The NJ State Transportation Innovation Council (NJ STIC) Spring 2020 Meeting, held May 6, 2020, focused on the EDC-6 Innovative initiative Virtual Public Involvement. The topic was appropriate to the times as STIC members gathered for the group's first virtual meeting in response to NJ Executive Order 07 in force during the COVID-19 pandemic. Speakers included NJDOT Commissioner Dane Guterniz-Scacoetti. Jill Stark and Lana Lau from FH/NA, representatives of the state's three Metropolitan Planning Organizations (NJTRA, DVPRC, and SJTPO), Monmouth County, the Township of Princeton, and industry partner, AECOM.

Read More

June 2020

NJDOT Tech Transfer News

Lunchtime Tech Talks! Go Online

With the COVID-19 stay-at-home order in place, the NJDOT Bureau of Research took its Lunchtame Tech Talkat online and recently hosted three webinars.



Resource Center, presented EDC-5 Weather-Respon Management Strategies. Under Round 5 of the Every Day Counts (EDC) program, FHMA promotes Verather-Responsive Management Strategies (WRMS) to manage traffic and road maintenance during inclinent weather to inspose safety and reliability and minimize environmental impacts associated with weather events.

Dredging, Dredged Material Management and the New Jersey

March 2021 NJDOT Tech Transfer News

Subscribe





THANK YOU!

www.NJDOTtechtransfer.net/NJ-STIC (609)963-2242 – Bureau of Research