



ARIZONA TRANSPORTATION INSTITUTE

ANNUAL REPORT

FY 2025

SEPTEMBER 2025



azti.arizona.edu



AZTI@arizona.edu

ABOUT US



The Arizona Transportation Institute (AZTI) was established in the summer of 2024 through a collaborative effort between the three state universities in Arizona—University of Arizona (UA), Arizona State University (ASU), and Northern Arizona University (NAU)—and the Arizona Department of Transportation (ADOT). This collaboration is formalized through a Letter of Understanding among three state universities and a Grant Agreement between UA and ADOT, creating a transportation research consortium dedicated to advancing transportation research and development within the state.



OUR MISSION

Address the transportation research needs of ADOT and the State of Arizona, generating valuable information and recommendations to tackle transportation challenges.

OUR VISION

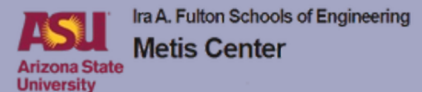
Plan: Leverage research capabilities to drive innovation .

Partnership: Enhance collaboration between UA, ASU, NAU, and ADOT (and more local agencies) to meet state and national transportation needs.

AFFILIATE AGENCIES



RESEARCH CENTERS



RESEARCH LABS



AZTI FACUTLY AND STAFF

UNIVERSITY OF ARIZONA DIRECTORY



Dr. Yao-Jan Wu
Executive Director, AZTI



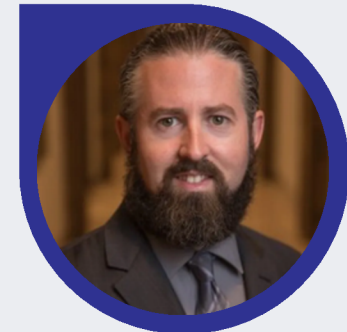
ARIZONA STATE UNIVERSITY DIRECTORY



Dr. Hasan Ozer
Associate Director, AZTI



NORTH ARIZONA UNIVERSITY DIRECTORY



Dr. Brendan Russo
Associate Director, AZTI



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CURRENT AZTI STAFF



Magesh Devaraju
Research Program
Manager



Dr. Amr Shafik
Research Engineer



Kim MacPhail
Research Outreach
Coordinator



Cameron Hatcher
Research Funding
Admin.



Pei-Yu Leu
IT Manager



Dr. Jun Zhao
Postdoctoral
Research Associate

18 Ongoing Projects

Category

- **11** Standard
- **2** Fast Track
- **5** Expedited

Area

- **9** Planning
- **6** Operation
- **3** Infrastructure

2025

PROJECT TITLE	AREA	CATEGORY
SPR-797 Assessment of Pavement Mechanistic-Empirical (Pave Me) Design Software	Infrastructure	Standard
SPR-798 Statewide Pavement Marking Condition Assessment Program	Planning	Standard
SPR-799 Data Visualization Tools for Travel Demand Modeling Notable Practices	Operations	Expedited
SPR-801 Bridge Deck Replacement on Concrete Box-Grinders	Infrastructure	Expedited
SPR-802 Exploring AI Technology for Transportation Data Applications	Planning	Expedited
SPR-803 Enhancing Traffic Delay Prediction Utilizing Data-Driven Techniques	Operations	Standard
SPR-804 Potential Revenue Generation Through Commercialization for Arizona Rest Areas	Planning	Standard
SPR-806 Assessing the Impact of Driver Programs and Crash Risk Factors for Drivers	Planning	Standard

2024

PROJECT TITLE	AREA	CATEGORY
SPR-807 Fiber Reinforcement in Concrete Pavement	Infrastructure	Fast Track
SPR-808 Cold In-Place Recycle (CIR) and Full-Depth Reclamation (FDR) in Arizona	Infrastructure	Fast Track
SPR-787 Assessment of Asphalt Shear Rutting Test Method to Improve the Performance of ADOT Asphalt Mixes	Infrastructure	Standard
SPR-788 Assessing the Consumption Costs of Motor Vehicles on Arizona Roads and Bridges	Planning	Standard
SPR-789 Development of Arizona-Specific Crash Modification Factors	Operations	Standard
SPR-790 Expanding the Capability of Arizona's Statewide Travel Demand Model Using Dynamic Traffic Assignment	Planning	Standard
SPR-792 State of the Practice of Data Management Office within DOTs	Planning	Synthesis
SPR-793 Exploring the Development of a Research Data Management Plan	Planning	Standard
SPR-794 Enhancing Arizona Roadways' Resilience to Wildfire Through Vegetation Recovery	Operations	Standard
SPR-795 Best Practices for Structuring and Managing Statewide Resource-Tracking Databases	Planning	Expedited

RESEARCH PROCESS



OUTREACH ACTIVITIES

Arizona Transportation Research Summit 2024



- Brought together transportation professionals, researchers, and policymakers from across the state
- Featured remarks from the AZTI Director on the mission and data-driven approach
- Included faculty from UA, ASU, NAU, and representatives from ADOT
- Highlighted the importance of collaboration between universities, agencies, and communities
- Marked the beginning of a tradition for innovation and impactful progress in Arizona's transportation future

University Outreach Events

AZTrans Exhibit at the 2025 Flagstaff STEM Celebration

Northern Arizona University | April 26, 2025

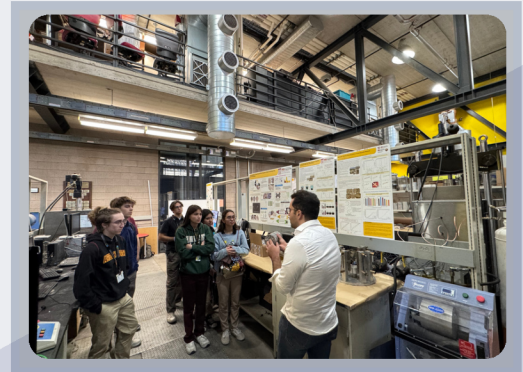
- AZTrans hosted an interactive exhibit "Behind the Scenes: How Our Roadways Are Designed & Operated"
- Featured traffic signal detection equipment, simulation software, and STEM games for K–8 students
- Over 100 students participated in the activities
- Exhibit supported by NAU graduate students Anthony Eschen, Omkar Chorge, and undergraduate Ava Eli.



National Summer Transportation Institute (NSTI) Lab Visit

Arizona State University | June 18, 2025

- NSTI Lab Visit: 40+ Arizona high school students visited ASU's Advanced Pavements Lab as part of the FHWA- and ADOT-sponsored NSTI program.
- Goal: Inspire students to pursue transportation and civil engineering through hands-on learning and lab experiences.
- Participants: Selected from nearly 100 applicants across 32 schools and 21 cities.
- Activities: Students observed pavement testing, performance evaluation, and sustainable transportation research.
- Impact: ASU's Pavement Lab was ranked among the most inspiring parts of the program for the second year in a row.



Summer Engineering Academy (SEA) – Subgrade Materials Activity

University of Arizona | June 12, 2025

- Focused on identifying and stabilizing subgrade materials through practical, hands-on exercises
- Provided students with exposure to real-world geotechnical engineering challenges
- Fostered collaboration and engagement among participants, faculty, and volunteers
- Organized and led by Dr. Tejo Bheemasetti, whose leadership ensured the event's success
- Supported by faculty, staff, and student volunteers, contributing to the overall success of SEA 2025



OUR IMPACT



18+
PROJECTS



150+
IDEAS



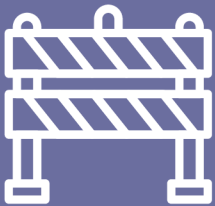
\$3+ MILLION/
YEAR



150 + FACULTY
INVOLVED

In just one year, AZTI has fostered innovation and collaboration across Arizona's top Universities, translating over 100 ideas into 16+ active projects.

IMPACT SNAPSHOT



2+
COMPLETED
PROJECTS



16+
IN-PROCESS
PROJECTS



40+
AFFILIATE
FACULTY

GOALS & OBJECTIVES

1. Comprehensive Resource Database
2. Streamlined Research Process



3. Economic Growth
4. Workforce Development



5. Innovative Solutions
6. Collaboration





ARIZONA TRANSPORTATION INSTITUTE

ARIZONA
— DEPARTMENT OF —
TRANSPORTATION

ASU

A
ARIZONA

NAU

Prepared by

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