PacTrans University Transportation Center of Federal Region 10

JANUARY 2022 NEWSLETTER

HIGHLIGHTS

Incorporating Ride-Sourcing Service into ADA Paratransit

In early December 2021, PacTrans PI and Professor of Urban Design and Planning at the University of Washington, Qing Shen, and a Graduate Research Assistant in the Interdisciplinary PhD Program in Urban Design and Planning at the University of Washington, Lamis Ashour, delivered a

webinar titled, *Incorporating Ride-Sourcing Service into ADA Paratransit: Opportunities and Challenges for Public Transit Agencies*.

READ THE FULL STORY HERE

PacTrans Student Researcher Zhiyong Cui receives 2021 IEEE ITS Best Dissertation Award

PacTrans student researcher, Zhiyong Cui, from the University of Washington was awarded the 2021 IEEE ITS Best Dissertation Award for his dissertation on Deep Learning for Short-term Network-wide Road Traffic Forecasting. The IEEE ITS Best Dissertation Award is given annually for the best dissertation in any ITS area that is innovative and relevant to practice. Zhiyong's research attempts to answer how to design proper deep learning models to deal with complicated network-wide traffic data and extract comprehensive features to enhance prediction performance.

READ THE FULL STORY HERE

OSU's Brian Staes Receives PacTrans UTC Outstanding Student of the Year Award

Each year, every University Transportation Center has the opportunity to recognize one of its many brilliant student researchers with the UTC Outstanding Student of the Year award. Students are evaluated on accomplishments in three areas: (1) Technical Merit and Research, (2) Academic Performance, and (3) Professionalism and Leadership. This year, that prestigious award went to Oregon State University PhD candidate Brian Staes.

READ THE FULL STORY HERE

PacTrans PI Developed Technology to be Licensed by Fusione Corp- a Snow and Ice Operations Company

PacTrans PI, and Washington State University Professor of Civil and Environmental Engineering, Xianming Shi has developed an anti-icing technology that is being licensed by Fusione Corp., a Massachusetts-based snow and ice operations company, with the goal of creating environmentally responsible and sustainable snow and ice road treatments. This technology was partially a result of a PacTrans-funded research project titled, Exploring Weather-Related Connected Vehicle Applications for Improved Winter Travel in the Pacific Northwest, where Dr. Shi partnered with researchers from the University of Washington to investigate how connected vehicle (CV) data such as images and friction coefficients could be integrated with data from road weather information system (RWIS) stations and other existing infrastructure, and how the integrated data could be utilized to improve decision-making for highway operations and enhance traveler information during inclement winter weather events.

[READ THE FULL STORY HERE](#)

PacTrans Student Researcher Helena Breuer wins DDETFP Fellowship Award

PacTrans student researcher from Oregon State University, Helena Breuer, was recently awarded the The Dwight David Eisenhower Transportation Fellowship award. The Dwight David Eisenhower Transportation Fellowship Program (DDETFP) awards fellowships to students pursuing degrees in transportation-related disciplines.

[READ THE FULL STORY HERE](#)

WSU Team Wins Top NASA Honor for Moon Dust Project

A student team from PacTrans Consortium partner Washington State University won the prestigious Artemis Award at NASA's Breakthrough, Innovative and Game-changing (BIG) Idea Challenge. The team successfully built and demonstrated a prototype to clean lunar dust from spacesuits.

2021 Michael Kyte Region 10 Outstanding Student of the Year Award: Ananna Ahmed

Each year PacTrans facilitates the selection of the Michael Kyte Region 10 Outstanding Student of the Year Award. We are pleased to announce that this year's award winner is Oregon State University Graduate Student, Ananna Ahmed. Since receiving this award Ananna has graduated from OSU with the PhD in Transportation Engineering. She is currently located in Mclean, VA, and working as a Human Factor Specialist, at Leidos in the Turner-Fairbank Highway Research Center.

RECENTLY COMPLETED RESEARCH

PacTrans researchers from our consortium member institutions have recently completed the following projects in the four mobility sub topics of: accessibility, reliability, efficiency, and safety. To learn more about each specific project, please click on the title to access the research profile

page on our PacTrans Website.

Project Title: Measures of Freight Network Resiliency: A Pacific Northwest Expanded Data Capture and Analysis of Truck Drivers and Support Services under Pandemic Distress
PI(s): Sal Hernandez (OSU)
Project Number: 2020-COV-OSU-4

Project Title: Using GNSS to Evaluate Threats to Mobility of Resources and People on Coastal Roads in USDOT Region 10
PI(s): Meagan Wengrove (OSU)
Project Number: 2019-S-OSU-3

Project Title: Medicaid's Non-Emergency Transportation: The Critical Role of Mobility Services in Accessing Behavioral and Preventative Care
PI(s): Bidisha Mandal (WSU)
Project Number: 2019-S-WSU-1

The Pacific Northwest Transportation Consortium (PacTrans) is the Region 10 University Transportation

Center (UTC) established in January 2012 with funding from the US Department of Transportation (USDOT).

PacTrans is a combined effort of transportation professionals and educators from the University of Washington (UW), Oregon State University (OSU), the University of Alaska Fairbanks (UAF), the University of Idaho (UI), Washington State University (WSU), Boise State University (BSU), and Gonzaga University (GU). With two active centers focusing on both Safety and Mobility, PacTrans serves as an engine and showcase for research, education, and workforce development in the Pacific Northwest.

The goal of PacTrans is to create an environment where consortium universities and transportation agencies within Region 10 work together synergistically. The PacTrans program focuses on the USDOT-identified priority of Improving the Mobility of People and Goods. This priority includes the following nonexclusive topic areas:

- Increase access to opportunities that promote equity in connecting regions and communities, including urban and rural communities;
- Smart cities;
- Innovations to improve multimodal connections, system integration, and security;
- Assistive technologies for those with physical or cognitive disabilities;
- Data modeling and analytical tools to optimize passenger and freight movements;
- Innovations in multi-modal planning and modeling for high growth regions;
- Novel (non-traditional or alternative) modes of transport and shared use of infrastructure; and
- Regional planning and setting of transportation priorities.

The Pacific Northwest offers a unique blend of opportunities to examine a variety of transportation issues, including those related to urban centers, rural communities, diverse geographic features (e.g., coastal plains, mountain ranges), and a growing population of pedestrians and bicyclists. This diversity makes the Pacific Northwest a natural laboratory in which to investigate transportation solutions that are applicable both locally and nationally.

PacTrans is dedicated to collaborating with transportation agencies, companies, and research institutions to jointly develop safe and sustain-able solutions for the diverse transportation needs of the Pacific Northwest.