

MAY 2021 NEWSLETTER

HIGHLIGHTS

PacTrans Officially Launches Workforce Development Institute



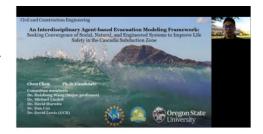
education challenges.

Last week, in concert with the first class of its first training course, PacTrans officially launch our Workforce Development Institute (WDI). The journey toward this milestone began four years ago when the PacTrans Board of Directors created an ongoing multi-institutional education project to explore and develop a program to support industry and agency partners combat growing workforce development and continuing

READ THE FULL STORY HERE

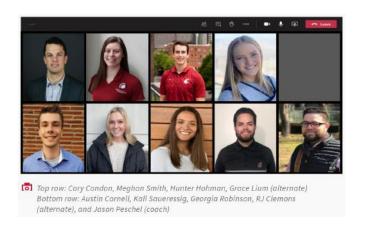
PacTrans Launches Doctoral Webinar Series

This past March, PacTrans launched a new doctoral webinar series. This series is being spearheaded by PacTrans Associate Director of Education and UW Professor Emeritus of Urban Design and Planning, Anne Vernez Moudon. The goal is to create a platform for students to present their research to their peers.



WATCH THE WEBINAR HERE

WSU Student Team Wins 1st Place at Construction Management Competition



A student team from PacTrans consortium partner Washington State University took first place in the recent Associated Schools of Construction competition, the largest construction management competition in the U.S.

READ THE FULL STORY HERE

PacTrans AD featured in ASCE's Source on Engagement in Teaching



Early last month, Civil Engineering Source, ASCE's news and information hu wonderful article about PacTrans Associate

Director and OSU Professor of Civil and

Construction Management, David S. Hurwitz.

The article titled, Engagement and

commitment are hallmarks of transportation

engineering course at Oregon State

University, summarized an interview

conducted with Professor Hurwitz about the effectiveness of his teaching pedagogy.

READ THE FULL STORY HERE

PacTrans Director weighs in on the role of Al in Transportation Asset Management Early last month, PacTrans Director and Professor of Civil and Environmental Engineering at UW, Yinhai Wang, Ph.D., was interviewed by the National Academies for their article titled *The Era of Smart Infrastructure Demands Strong Data, Technology Management.* As the incoming chair of the Transportation Research Board's Standing Technical Committee on Artificial Intelligence and Advanced Computing Applications, professor Wang exchanged his



views on how Artificial Intelligence (AI) could be employed in transportation asset management as a way to address safety and system reliability.

READ THE FULL STORY HERE

PacTrans Participates in the 2021 UTC Mobility Summit



In mid-April, the Mobility21 National
University Transportation Center, led by
Carnegie Mellon University, hosted The Third
Annual National Mobility Summit of the US
Department of Transportation University
Transportation Centers. This annual event
provides an opportunity for policymakers,
public agencies, private industry, non-profit

organizations, and UTCs focused on mobility, to come together for a day-long summit to explore the current state of many aspects of the transportation industry, current and emerging research needs, and opportunities for collaboration and partnership.

READ THE FULL STORY HERE

UW STAR Lab Student Meixin Zhu stands Fourth in Smart Transportation-Collision Recognition Based on Big Data of Internet of Vehicles

Meixin Zhu, a Ph.D. student at PacTrans Director Yinhai Wang's UW STAR Lab stood fourth in the Smart Transportation Competition held earlier this month. The competition was based on the new energy vehicle operating data, collision labeling, and collision time provided by SAIC-GM-Wuling.

A total of over 1,300 teams used this dataset and machine learning or deep learning methods to identify the possibility of vehicle collisions based on vehicle operating data and identify users' collision situations in time. Competitors were ranked based on the A-Score of their models.



READ THE FULL STORY HERE

PacTrans One of Two UTCs Highlighted in TRB CRC Funding Webinar Series



This past March, the TRB Committee
Research Coordinators (CRC) Council hosted
a webinar on the USDOT University
Transportation Centers program funding.
PacTrans director, Yinhai Wang, was one of
two UTC directors invited to participate as a
presenter.

READ THE FULL STORY HERE

RECENT PACTRANS WEBINARS

Developing Design Guidelines for Commercial Vehicle Envelopes on Urban Streets

On February 17, PacTrans hosted a webinar featuring the results from our multi-institutional research project title, *Developing Design Guidelines for Commercial Vehicle Envelopes on Urban Streets*. The presenters included Ed McCormack, Research Associate Professor from the University of Washington and Hisham Jashami Research Associate from Michigan State University (formerly Oregon State University).

WATCH THE WEBINAR HERE

Leadership Development with Emphasis on Technical Communication

On March 8, PacTrans was pleased to welcome Jean-Louis Briaud, Distinguished Professor at Texas A&M University and the current President of the American Society of Civil Engineers. Dr. Briaud was invited to give this year's Leadership Development Webinar which was titled,

Leadership Development with Emphasis on Technical Communication. He shared many powerful anecdotes that summarized the countless insights he has learned over the years about leadership.

WATCH THE WEBINAR HERE

Perimeter Metering Control for Two-Region Urban Networks using Deep Reinforcement Learning

On April 2, PacTrans was joined by Vikash Gayah, Associate Professor of Civil and Environmental Engineering at the Pennsylvania State University for a webinar titled, Perimeter Metering Control for Two-Region Urban Networks using Deep Reinforcement Learning. In this webinar, Dr. Gayah presented his recent research work and had a lively discussion with participants.

WATCH THE WEBINAR HERE

Workforce Management in Transportation

On April 13, PacTrans was proud to host a webinar featuring the Acting Commissioner of the Alaska Department of Administration, Amanda Holland. Ms. Holland presented finds from a recent NCHRP scan of best practices for Workforce Management in Transportation. Workforce management is becoming increasingly involved with major shifts in culture and policy due to the COVID-19 pandemic.

WATCH THE WEBINAR HERE

Exploring Weather Related Connected Vehicle Applications for Improved Winter Travel

On April 27, PacTrans hosted a webinar featuring the results from our multi-institutional research project title, *Exploring Weather-related Connected Vehicle Applications for Improved Winter Travel in Pacific Northwest.* The presenters included Xianming Shi, Professor from Washington State University and Ziyuan Pu, Lecturer from Monash University (formerly the University of Washington).

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.



Keith Cunningham (UAF), Ben Leshchinsky (OSU), Michael Olsen (OSU), Joseph Wartman (UW), "Quantifying Impact of Rockfall on Mobility of Critical Transportation Corridors" | 2018-M-UAF-1

Billy Connor (UAF), "Synthesis of Best Practice for Design and Construction of Roadways and Airports

Over Permafrost" | 2018-S-UAF-1

Mohamed Hefeida (UI), Sameh Sorour (UI), "<u>Fusion of Airborne and Terrestrial Sensed Data for Real Time Monitoring of Traffic Networks</u>" | 2018-S-UI-3

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.









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