



PacTrans

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University Transportation Center Newsletter

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PacTrans at the 2014 TRB Conference

The annual meetings of Transportation Research Board (TRB) have been one of the most important and most widely attended venues for transportation researchers and practitioners to exchange research information and share technology transfer stories.



The 2014 TRB annual meeting was held January 12 – 16, 2014, in Washington DC with over 11,000 participants and 3,300 program presentations. PacTrans highly values the opportunity to showcase PacTrans research products and educate future transportation professionals. There were 85 technical presentations made by PacTrans researchers at the 2014 TRB Annual Meeting that covered a broad range of subjects including transportation safety, state of good repair, economic competitiveness, livable communities, and environmental sustainability.

Most of these talks were based on findings of PacTrans research projects funded in the 2012-2013 academic year. To help student learning and educate future leaders, travel funds were allocated to support student authors to attend this conference to present their papers and interact with transportation professionals. Over 30 student authors received travel support packages from PacTrans matched by their home institutions. They were excited about their TRB experiences.

PACTRANS AT TRB 2014 CONFERENCE



University of Idaho graduate student Andrew Hooper (second from left) received the SOY Award at the CUTC Banquet, surrounded by RITA and CUTC leaders.

CUTC Awards Banquet, January 11, 2014

PacTrans was pleased to present Andrew Hooper with the PacTrans Student of the Year (SOY) award at the Council of University Transportation Centers (CUTC) Awards Banquet. The evening celebration and kickoff to the Transportation Research Board Conference took place January 11 in Washington, D.C. Each year some of the best and brightest minds in the industry are put forward as nominees by educators across the country.

The Council of University Transportation Centers (CUTC) awards competition recognizes outstanding transportation students, faculty and leaders for their accomplishments in the field of transportation research and education. PacTrans is proud to be a Silver Sponsor of the event.

PacTrans Reception, January 13, 2014



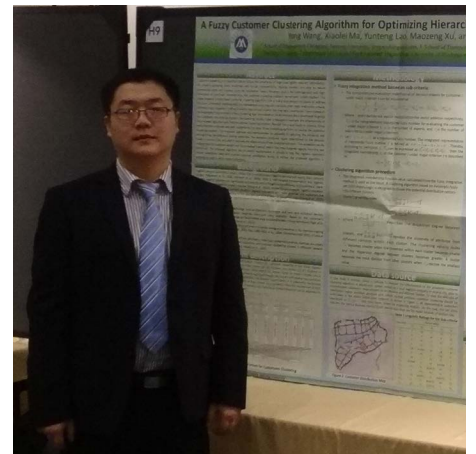
(Shown from left) Professor Karen Den Braven (UI), Jonathan Corey (UW PhD candidate and winner of the 2013 Michael Kyte Award), Andrew Hooper (UI grad student and 2013 Student of the Year award winner for Region 10), and Dr. Yin Hai Wang, PacTrans director.

Following a beautiful dinner and ceremony celebrating all the National UTC students of the year, attendees gathered at the PacTrans reception hosted by the Pacific Northwest Transportation Consortium in partnership with AUTC, Oregon State University, Washington State University, and TranLIVE. Always a TRB must, this year was no exception, bringing together professionals, public officials and students from all over the world.

Jonathan Corey received the Michael Kyte Region 10 Outstanding Student Award. Established in honor of University of Idaho Professor of Civil Engineering Michael Kyte, the award recognizes outstanding research, scholarship and professional leadership in transportation studies. Past recipients include: Yegor Malinovskiy, UW ('09); Yao-Jan Wu, UW ('10); Erica Wygonik, UW ('11); and Kristina Currans, PSU ('12).

PACTRANS AT TRB 2014 CONFERENCE

This year more than 30 student authors received travel support packages from PacTrans matched by their home institutions. Students were invited to share their TRB experiences and insights with us here.



ARIANNA ALLAHYAR

Attending the 94th Annual Transportation Research Board Meeting in Washington, D.C. was an excellent way to step outside the classroom and office to not only present my own ideas but also learn from others.



This was my first time attending, and the very size of the conference was astounding. A large number of technical sessions, presentations, committee meetings, workshops, and poster sessions covered all disciplines in the transportation realm. Truly international, the conference brought a global perspective to transportation topics.

I had the opportunity to increase my professional expertise, interact with recognized industry professionals, get involved on committees, and, of course, network. I also shared my research and findings during a poster session.

I look forward to attending the annual conference again, and encourage others across the transportation industry to take an active role; it's well worth it.

MATTHEW DUNLAP

On Saturday, January 11, I eagerly departed for my first Transportation Research Board conference in Washington, D.C.

After landing, I made my way to one of the three enormous hotels hosting the event. The atmosphere was very busy but very friendly as well. Professors and students alike were everywhere exchanging hugs, handshakes and that most coveted of gems: the personal business card.



Following two exhausting days attending the TRB conference and listening to others present, it was my turn

to show off my work to the world. With nervous hands, I hung the poster and waited; every poster seemed to be attended but mine. Then, after a few tense minutes a group had formed. In what was most definitely the biggest moment of my grad school career up to this point, I presented my research: "Bicyclists' Sensitivity to Weather in an Arid Climate."

I left the following day early; sleep deprived but happy. They say that every time we travel, we grow a little, and this trip proved to be no exception.

YONG WANG

I am so delighted that PacTrans sponsored me to attend the annual Transportation Research Board Meeting. TRB offers a great opportunity to connect with transportation professionals and scholars.

I presented three papers completed during my visit at the University of Washington: "A Fuzzy Customer Clustering Algorithm for Optimizing Hierarchical Logistics Network Structure," "A Hybrid of Particle Swarm Optimization and Genetic Algorithm for the Regionalism of Freight Distribution" and "A Two-stage Heuristic Algorithm for Vehicle Routing Problem with Simultaneous Pickup and Delivery." All attracted considerable attention from other transportation researchers. I feel the three posters also successfully broadened PacTrans' impact and enhanced my own academic visibility.

My research focus mainly lies in freight transportation and logistics engineering. By participating in several committee meetings and lectern sessions, I have gained a more in-depth understanding of my current research area. I truly appreciate that PacTrans has provided me the financial support to attend such an international conference and build my academic and industrial networks. ■



Karen's team just completed this year's challenge competition achieving third, and a boatload more awards. Please contact Dan Cordon at dcordon@uidaho.edu for details.

Karen Den Braven is Retiring

Retiring after 27 years with the University of Idaho, Karen Den Braven, professor of mechanical engineering, director of the National Institute of Advanced Transportation Technology (NIATT), and founding faculty advisor to the UI Society of Automotive Engineers (SAE) Clean Snowmobile Challenge team, has been a constant influence in UI engineering.

Den Braven led a number of PacTrans transportation research projects while serving on the consortium's Board of Directors. She also established UI leadership of TranLIVE (Transportation for Livability by Integrating Vehicles and the Environment), a national collaboration developing technologies to reduce the environmental impact of the transportation system.



We are fortunate to have had Dr. Den Braven's dedicated leadership on PacTrans Board of Directors. We appreciate all she has done to strengthen our collaboration – Thank you, Karen.

Den Braven “is passionate about students [and] is able to inspire them to succeed,” says Larry Stauffer, College of Engineering dean. Her hands-on work with students over the years reengineering stock snowmobiles to reduce emissions, lower noise, and increase fuel efficiency has produced uncommon results – with shelves of awards to show for it.

Den Braven's work on engine efficiency has appeared in more than fifty publications. Her accomplishments with the Clean Snowmobile Challenge team earned her directorship of the NIATT's Center for Clean Vehicle Technology in 2005, and in 2008 she was named Director of NIATT.

When asked what she most cherishes in her time at UI, Den Braven replies, “People, it has always been about the people. My role has been to help students, to help faculty, to make other people's lives here easier.”

Den Braven will continue to help as Director of Engineering Programs for the South Carolina Governor's School of Science and Mathematics (GSSM). Alongside academic partners at Clemson and University of South Carolina, state government, and industry leaders, Den Braven will lead the next generation of engineers (students grades 10-12). ■

PacTrans and ITE Washington Co-Sponsored Transportation Safety Meeting

On March 18, PacTrans and the Washington State chapter of the Institute of Transportation Engineers (ITE Washington) jointly hosted a meeting on the UW campus to discuss contemporary issues in transportation safety. An audience of nearly 60 students, researchers, and transportation professionals attended, representing the UW, public agencies including the City of Bellevue, the City of Federal Way, Snohomish County, and private organizations such as Transpo Group, Traffic Data Gathering, as well as private consultants.



while under the influence of drugs and/or alcohol. Target Zero is a common goal of agencies involved in improving road safety in Washington State.

Matt Neely, WSDOT priority programming and scoping engineer outlined the advantages of new techniques in analyzing stretches of road where collisions are frequent. In the past, analysis plotted accident locations on maps to identifying accident hot spots. With evolving technology and data analysis techniques, it is now possible to examine data from several years to see long-term trends and pinpoint regions where improvement is most needed.

The two presentations triggered a lot of discussion among attendees. Transportation researchers and professionals had learned about a number of transportation safety issues and innovative new approaches. The group came away with a good understanding of Washington State goals for reducing traffic fatalities, and the cutting-edge accident analysis techniques that will help us get there. ■



Chris Madill, the Director of Program and Services at the Washington State Safety Commission gave a talk on Target Zero, Washington State's ambitious plan to reduce the number of annual traffic fatalities to zero by 2030. The plan sets priorities for reducing crashes, the largest cause of which is driving

PacTrans Director Dr. Yinhai Wang Presented his Research at the OST-R Transportation Innovation Series

Transportation involves human, infrastructure, vehicle, and environmental interactions and is therefore a very complicated system. Recent advances in sensing, networking, and computing technologies are making more and more transportation-related data and computational resources available. These new assets are likely to provide better means to analyze and address critical transportation issues in a faster, more accountable, and more cost-effective way.

From big data to big discoveries and big decisions: what is the gap and

what needs to be done? Clearly, a new theoretical framework is needed to integrate the quickly growing massive amount of data, typically from numerous sources of varying spatial and temporal characteristics, into large-scale transportation problem solving and decision making processes. In years to come, these efforts will likely lead to a new subject area, namely e-science of transportation. ■



Dr. Yinhai Wang, director of PacTrans and professor of transportation engineering in the University of Washington Civil and Environmental Engineering Department spoke February 19 on "Big Data, Big Discoveries and Big Decisions: Challenges and Opportunities for Transportation Professionals." His presentation is archived at: <http://www.yorkmedia.com/dot/2014/02/19>

UW Students Receive Scholarships at the Women's Transportation Seminar

The Women's Transportation Seminar (WTS), one of the most important professional societies in the transportation field, took place March 27 at the Westin Hotel, Seattle. The annual gala is held every spring to acknowledge people who have made great contributions to the transportation industry in the past year and to raise funds for upcoming year scholarships that are provided to college students interested in making transportation a career. The event draws hundreds of enthusiasts from major transportation consulting firms, government agencies and throughout the field.

More than 320 transportation professionals, entrepreneurs and students attended including Menglin Wang, sponsored by PacTrans. Wang is the student liaison chair of the Women's Transportation Seminar Puget Sound Chapter and has been actively involved in their activities. She was also one of the recipients of WTS 2013 scholarship award. Menglin Wang considers the gala a

great platform to interact with other transportation professionals and present PacTrans as an active player in the transportation world.

This year's 2014 WTS scholarship winners include three University of Washington students. Mary E. Anderson received the Helene M. Overly Graduate Memorial Scholarship. She is pursuing her master's degree in Sustainable Transportation. Amy Riley received the Sharon D. Banks Memorial Undergraduate Scholarship with a focus on structural engineering. Jennifer Malley received the Senator Scott White Memorial Scholarship and is pursuing her master's degree in Public Administration through the Evans

School of Public Affairs. Malley aspires to serve as an advocate for progressive transportation policies that create environmentally sustainable, equitable urban communities and lasting social change. ■



(Shown L-R) Menglin Wang and Maria Bayya at the Women's Transportation Seminar Gala.

Dr. Ruth Steiner Presented her Research at the PacTrans Seminar Series: School Siting and Children's Travel

Dr. Ruth Steiner spoke to representatives from King County, Cascade Bicycle Club, Feet First and community advocates as well as students in a PacTrans seminar on February 5.

The diverse group had come to listen to her presentation "School Siting and Children's Travel: Siting to Support Active Transportation," one in a series of seminars sponsored by PacTrans and the University of Washington Department of Urban Design and Planning. ■



Dr. Ruth Steiner is professor and director of the Center of Health and the Built Environment in the Department of Urban and Regional Planning, and an affiliate faculty in the School of Natural Resources and Environment and the University of Florida Transportation

Institute (UFTI) at the University of Florida. Dr. Steiner's areas of expertise span growth management and land use, safety, health and environment, sustainability, and transportation.

Dr. Ahmed Abdel-Rahim named NIATT Interim Director



Ahmed Abdel-Rahim has been appointed the Interim Director of the National Institute for Advanced Transportation Technology (NIATT). He is an associate professor in the Department of Civil Engineering and has been an active researcher with NIATT since he came to the University of Idaho in 2000.

Dr. Abdel-Rahim is soon to take his place on PacTrans Board of Directors succeeding Karen Den Braven, who is retiring.

His research field is Transportation Engineering focusing on traffic operation and control, transportation system modeling, highway design and traffic safety, and most recently has emphasized security and survivability of transportation infrastructure. He was the recipient of the College of Engineering Outstanding Faculty award in 2010 and the University of Idaho Midcareer award in 2012.



PHOTOS: FEET FIRST



PacTrans Supports Feet First for Safety

The nonprofit group Feet First works to support walkability in all communities across Washington. In 2005, when the group first became involved in Safe Routes to School (SRTS) “our pilot program was a novelty” according to Program Director, Jen Cole. Thanks to volunteers, grassroots and inter-agency support this is no longer true. Walking school buses—most simply, groups of children accompanied by one or more adults are taking off. In the Seattle school district alone, 27 schools have active walking school bus programs.

Cole is encouraged by other signs of progress. In 2012 the Seattle School Board adopted measures to support active transportation in their Transportation Service Standards. These include providing crossing guards and surveying parents to find support and identifying safe routes before walking programs are even introduced.

Parents are most concerned about safety and supervision. Feet First has worked with policy makers, intergovernmental groups and directly with school administrators and parents to meet these concerns. They have sponsored events to raise awareness, and educate communities—including

brochures in Vietnamese, Spanish and Somali as well as English to explain the “how and why” of walking to school. Feet First also provides diverse “maps” to success, from safe route audits to extensive training materials.

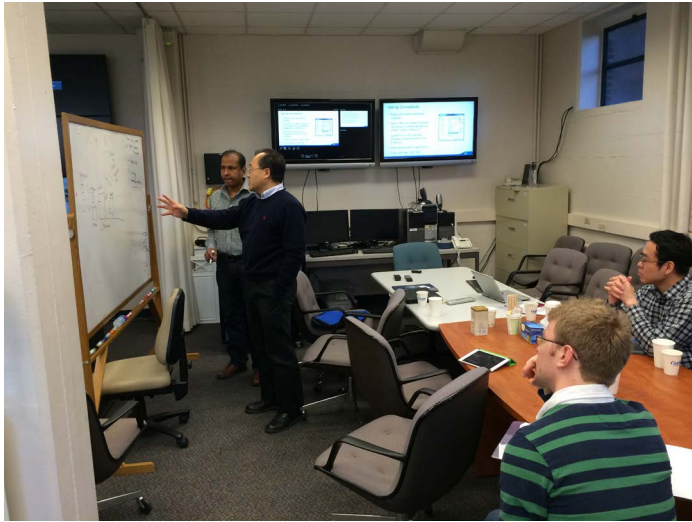
The people-powered buses have gained traction through studies on children’s health also. Dr. Jason Mendoza, MD, MPH, a PI in the Center for Child Health, Behavior and Development at Seattle Children’s Research Institute and associate professor at the University of Washington is investigating how the programs may reduce obesity. See [“Going old school: Researcher encourages walking school bus to prevent childhood obesity.”](#)

Feet First’s Jen Cole looks forward to some form of partnership with PacTrans. “It is essential that all of our program work be partnered with measurement and evaluation so we can make the biggest positive impact,” she says. With walking school buses, as with other walking programs, Feet First sets the bar high in inspiring people to rethink their transportation modes and make walking a habit shared by many. ■

PacTrans and Intel in Partnership

PacTrans and Intel are developing a new partnership for collaborative research and education, smart transportation and big data. As part of this effort, several researchers at the PacTrans STAR Lab met with Intel Corporation's delegation led by Mr. Jay Kyathsandra to learn about the newly released Galileo: an Arduino single board microcontroller,

Galileo is a state-of-the-art circuit board that allows users to connect multiple sensors and process data into physical numbers that can be stored remotely, and made available to all via IOTs.



STARLAB members listen as Dr. Wang discusses the new Galileo board with Intel.

and discuss potential applications of this new product. This state-of-the-art circuit board allows users to connect multiple sensors and process the data collected from those sensors to physical numbers that can be then transferred to a cloud server to be stored remotely. Intel hopes that this chip will serve transportation applications by making data more available and accessible through the Internet of Things (IOTs). A smart transportation system is a crucial component of IOTs. PacTrans researchers clearly see the value of the Intel solution, and are interested in evaluating the Galileo board for potential applications in transportation research and engineering practice. ■

PacTrans Research Update: Trade-Offs Between P3's and DBB

With the adoption of Moving Ahead for Progress in the 21st Century Act (MAP-21) and an almost ten-fold increase of the Transportation Infrastructure Finance and Innovation Act (TIFIA) lending program, the U.S. Congress signaled that the transport community should look to the private sector for transportation finance. But is this the right direction for our roads? Or, as others have suggested, might there be unintended consequences to public-private partnerships (P3's)?



PHOTO COURTESY OF WSDOT

Today's value-for-money, shadow bid, or return on investment equations have not been designed to factor in the consequences of multiple shifts in legal rights and

responsibilities commonly written into P3 agreements. This project uses a transaction cost economic measurement framework to make sense of trade-offs between P3's

and the more traditional design bid build (DBB) option.

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The Critical Role of Leadership in Successful Innovation and Technology Transfer



Clint Adler, Alaska Department of Transportation & Public Facilities

As the Chief of the Research Development & Technology Transfer Section of the Alaska Department of Transportation & Public Facilities, I'm often asked by executives, researchers, and practitioners: "How do you ensure that the fruits of our research and innovation activities will get implemented into practice?" After all, state Departments of Transportation are interested mainly in deploying the products of applied research. They wish to see tangible, positive returns on the investments of their limited research and deployment dollars in the form of products or results that, once put into practice, will actually improve it.

After my thirteen years in the public sector research and technology transfer business, I can say with confidence that no matter how talented or capable research and technology transfer professionals are, by ourselves

we are completely incapable of implementing any changes into the practices of a complex public sector organization. We simply must rely on those who possess the necessary desire, authority, and resources to make the necessary changes and decisions. Without leaders who possess, or can obtain all three of these ingredients, even the best ideas, highest quality research, and tailored solutions have not, and will not become reality. Successful implementation only occurs once these factors come into alignment. Why? Because without this alignment, there is no longer an organization or a team, there is only a group of independent individuals. How much public sector innovation is aimed only at individuals for implementation? How far would a team of cats pull your sled?

What do we do to facilitate alignment within a state DOT? We've learned to insist on identifying and establishing the necessary leadership throughout the lifecycle of any innovation project or initiative. It is simply not enough to merely identify the problem and employ faculty or consultants to conduct the investigation as if it were a routine engineering or construction project with plans, schedules, and specifications. As a rule, innovation in organizations is a team sport. Therefore we must assemble a motivated advisory team that will collaborate to define the problem, frame the business case, and guide the conduct and communication of research and technology deploy-

ment activities so that the products facilitate, rather than merely describe the necessary changes. The best research and innovation project advisory teams are motivated by a common vision, empowered to solve the problems, and understand the business processes and culture of the target organization(s). Most importantly, they must have the authority to make necessary decisions. But that is not all! They often must assume a facilitation and/or marketing function to educate and ensure outreach to project stakeholders.

You will certainly not hear these concepts from me alone. With minimal searching, you will find much reinforcement of these leadership messages throughout the innovation and change management literature. At a recent Transportation Research Board annual meeting leadership forum, I heard multiple state DOT CEO endorsements of John P. Kotter's book, "Leading Change," which convincingly re-frames much of what I've mentioned into eight key practices successful leaders employ when attempting innovation and/or change initiatives in organizations. Many of our executives and mid-level managers have shared with me how these practices, once earnestly employed, have dramatically increased their effectiveness. Give it your review. I'd love to hear your perspective. ■

PacTrans Fabulous Four: 2014 Fellows

As part of PacTrans' mission to bring talented professionals into the transportation field, PacTrans provides funding to students seeking transportation-related degrees each year.



Arianna Allahyar

As a Seattle native, Arianna Allahyar is excited to be back in the Pacific Northwest after graduating June 2013 with a bachelor's degree in Urban and Regional Planning from California State Polytechnic University, Pomona. In her time as an undergrad, Arianna worked with the City of Los Angeles Planning Department for two years, and as a multimodal transit intern with the Riverside County Transportation Commission. In addition, she has gained significant experience working for Parsons Brinckerhoff as a transportation planner. Since joining the firm, Allahyar has provided technical support for a variety of transit planning efforts in the Puget Sound region.

She has experience in geographic information systems (GIS) analysis, traffic operations analysis, travel demand modeling, and policy analysis and is thrilled to be continuing her graduate studies in transportation engineering at the University of Washington. Allahyar strives to continuously evolve as an expert in the transportation realm and connect with professionals across the industry. She looks forward to making a positive impact on multi-modal transportation systems throughout her career.



Joseph Flood

Joe Flood received bachelor's degrees in mathematics/statistics and brain

and behavioral sciences from Purdue University in West Lafayette, Indiana in 2013. He has worked as a summer assistant for the Hendricks County Engineering Office in Danville, Indiana, where he performed a county-wide inventory of road signs, photographing signs and entering their condition into a database. After completing of his MSCE, he plans to work as a traffic engineer or transportation planner and to pursue his PhD.

He is interested in psychological factors of transportation, including transportation neuroeconomics and social factors influencing driving and travel behavior. Flood remembers that one of his favorite activities as a child was drawing road maps! Needless to say, he is thrilled to study transportation at the University of Washington. He is assisting in the UW PacTrans office where he's been inspired by the people he works with on the cutting edge of transportation research and education; a group he hopes to join in the near future.



Darwin Li

When Darwin Li first came to attend the University of Washington as an undergraduate, he knew immediately he would be majoring in civil engineering. He always found it fascinating that billions of people on this earth are able to coexist and travel to follow their dreams – safely, efficiently and cost-effectively. His curiosity led him to specialize in transportation engineering.

As a senior in the Undergraduate Civil Engineering Program, Li interned for the Seattle Department of Transportation, performing a variety of tasks such as ITS, surveying, data management and collision analysis. After working at SDOT for an additional year after graduation, he decided to pursue a Master's in Transportation Engineering at the University of Washington.

Li is excited to be moving forward with an internship at the Kirkland-based consulting firm, Transpo Group. After earning his master's, degree he hopes to put his skills, experience, and passion to good use in the field of Transportation Engineering.



Luka Ukrainczyk

Luka Ukrainczyk has been working as an intern at the Toll Division of the Washington DOT, where he performed studies on income generation by the SR 520 bridge and a lifespan analysis of GoodToGo tags. He received his undergraduate degree from the University of California, Davis. He has worked in the Community Development Department at the City of Woodland, and was an Undergraduate Research Fellow at the UC Institute of Transportation Studies.

His master's research focuses on modeling factors that influence demand for the SR 167 HOT lanes. He hopes his work will expand the use of demand pricing and encourage participation in alternative travel modes in the greater Seattle area. ■

PacTrans helps fund ASRA Student Challenge

Design and build a full-scale, multi-use trail bridge able to accommodate the width and load of a utility task vehicle (UTV), commonly referred to as a side-by-side ATV.



Keith Whitaker leads the group in a load testing exercise using a PASCO bridge set with load cells.

This was the challenge facing seven Alaska high school students enrolled in The Alaska Summer Research Academy (ASRA) Civil Engineering module, cosponsored by AKDOT&PF Research, Development & T2 and the Alaska University Transportation Center.

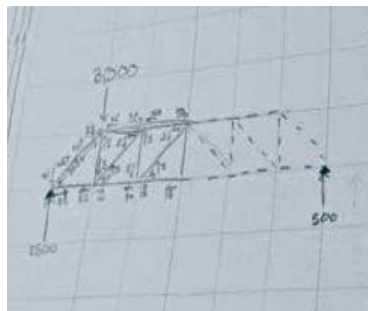


Students worked hard to meet their assembly deadline

Students quickly learned collegiate-level principles of geometry, vector forces, and statics to design a truss using the method of joints to calculate the member tensile and compressive forces. Considering these forces, students looked at the properties of the available materials to determine adequate truss component sizes and joint fastening.

“To see these bright young folks applying technical know-how while working together so fluidly was something special,” said James Harper, communication specialist for AUTC. “If I didn’t know better, I’d think it was an upper-level college class.”

In phase two the teams came together to share their work and select a design for the final bridge



Bridge Parameters

- 12' span on or above grade
- Transportable by ATV Amity
- Quick on-site assembly: 30 minutes or less
- 2x4 wood: maximum length 5'
- Bolts, wood screws, lumber adhesive
- 1/4" cable and associated hardware
- Total material cost not to exceed \$800

The ASR module focused on civil and transportation issues showing how engineering principles are used to solve problems. Students applied basic design principles of statics and structural analysis to complete their final bridge project.

As part of the challenge, two teams competed to develop the best design: “The A-Team” and the “Alaska Thrill Seekers.” Each group used their understanding of the engineering process in gathering data, developing schematic solutions, and completing a preliminary design.

project. After fierce negotiations, a winner was declared and both teams combined to form a “Board of Trustees” and begin collaboration on final project construction.

Working under tight deadline, construction was completed after just three days with only one change order! The students realized time and materials could be saved by using 6-foot 2x4s for the decking – and this was easily approved, since it had no real bearing on the truss or span criteria. Final project cost was \$675, well under the \$800 budget.

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ABOUT PACIFIC NW TRANSPORTATION CONSORTIUM

The Pacific Northwest Transportation Consortium (PacTrans) is the Region 10 University Transportation Center (UTC) established in January 2012 with a \$6.89 million grant from the US Department of Transportation (USDOT).

- Safety
- State of good repair
- Livable communities
- Environmental sustainability
- Economic competitiveness

PacTrans is a coalition of transportation professionals and educators from Oregon State University (OSU), the University of Alaska Fairbanks (UAF), University of Idaho (UI), University of Washington (UW), and Washington State University (WSU). With dual themes of safety and sustainability, PacTrans serves as an engine and showcase for research, education, and workforce development in the Pacific Northwest.

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 sustainable solutions for the diverse transportation needs of 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 solutions that we develop will meet the needs of the region and provide direction for the five strategic goals of the U.S. Department of Transportation.

The University of Washington serves as the consortium lead institution. PacTrans Center is located at More 112 on the UW campus. Dr. Yinhai Wang, professor of transportation engineering in the Civil and Environmental Engineering Department, serves as director of PacTrans.

PacTrans Research Update: Trade-Offs Between P3's and DBB

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The fruit of a joint collaboration between two regional University Transportation Centers, this research will produce a methodology for comparatively evaluating the relative merits and disadvantages of projects procured through P3 and DBB in California, Oregon, Washington, Idaho, and Alaska. The study findings are intended to appeal to a broad audience including policymakers, their staff, and the public in order to help assist public discussions regarding transportation project finance.

The two-year project targets research to the State of California and the Pacific Northwest States of Region 10, including Oregon, Washington, Idaho, and Alaska, making use of results from existing completed cases of side-by-side projects delivered traditionally and delivered through partnership agreements. ■

For more information about this research, please contact Jan Whittington at janwhit@uw.edu.

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UPCOMING EVENTS

Save the date for these upcoming PacTrans sponsored events with the following transportation renowned speakers!

Transportation Seminars

APRIL 11

Peter Koonce,
City of Portland Bureau of
Transportation

MAY 2

Jeffrey Busby,
Translink

MAY 16

Steve Boyles,
University of Texas, Austin

PacTrans Regional Seminar

MAY 30

Joseph Schofer,
Northwestern University

ASRA Student Challenge

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Testing the Design

The question remained – would the bridge hold a Polaris Ranger ATV? Students nominated one of their instructors as “most expendable” for the test drive. Donning his daughter’s pink safety helmet, Dave Waldo bravely got behind the wheel and crossed the bridge several times to loud cheers (and sighs of relief). The total weight of vehicle and payload was about 1,400 lbs.

PHOTOS COURTESY OF ALASKA DOT



PacTrans thanks ASRA co-instructors Dave Waldo and Keith Whitaker for wielding the more dangerous power tools, helping develop young engineers, and contributing to this newsletter. Funds for the Civil Engineering module were provided in part by PacTrans. ■

More info on The Alaska Summer Research Academy (ASRA) and the CE module: <http://www.uaf.edu/asra/>

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