

# OTREC

## Year 5 Projects 2010-2011

As governed by our Strategic Plan, and after rigorous peer review of 42 submitted proposals, OTREC has selected the top 15 research, education and technology transfer projects and 5 continuing projects for funding in 2011-2012.

### RESEARCH

- Real-time Change and Damage Detection of Landslides and Other Earth Movements Threatening Public Infrastructures, Michael Scott
- Wireless Data Collection System for Travel Time Estimation and Traffic Performance Evaluation, David Kim, J. David Porter, and Mario E. Magana
- Contextual Influences on Trip Generation, Kelly Clifton
- Economic Benefits of Cycling, Kelly Clifton
- Oregon Modeling Collaborative, Kelly Clifton
- The Relationship Between VMT and Economic Activity, B. Starr McMullen
- Transportation Electrification Initiative, John MacArthur
- Tools for Gusset Plate Evaluation, Phase 2, Chris Higgins and Peter Dusicka
- Evaluation of Bike Boxes at Signalized Intersections: Phase 2, Chris Monsere and Jennifer Dill
- Part II: Durability Assessment of Recycled Concrete Aggregates for use in New Concrete, Jason Ideker
- Reducing Seismic Risk to Highway Mobility: Assessment and Design Tools for Pile Foundations Affected by Lateral Spreading, Scott Ashford and Michael Scott
- Livability Performance Metrics for Transit, Marc Schlossberg and Jennifer Dill
- Multimodal Data at Signalized Intersections: Strategies for Archiving Existing and New Data Streams to Support Operations and Planning, Chris Monsere and Kristin Tufte
- Influence of Road Cross Section on Access Spacing, Karen Dixon and James Gattis
- Overlooked Destinations: Suburban Nodes, Centers, and Trips to Strips, Nico Larco
- Transit Bus Fleet Management and Optimization Models Addressing New Engine Technologies and Emissions Constraints, James Strathman
- Integrated Multimodal Transportation, Air Quality, and Livability Corridor Study: Measuring, Understanding, and Modeling the Interactions, Miguel Figliozzi and Chris Monsere
- Prioritization for Seismic Retrofit with Statewide Transportation Assessment, Peter Dusicka
- Increasing Bicycling for Transportation: The Role of Cyclist Type and Infrastructure, Jennifer Dill
- Oregon Modeling Collaborative, Kelly Clifton
- Tools for Gusset Plate Evaluation, Phase 2: Strengthening, Chris Higgins and Peter Dusicka

### EDUCATION

- Enhancing Bicycle and Pedestrian Education through Curriculum and Faculty Development, Ashley Haire
- Bicycle and Pedestrian Engineering Design Curriculum Expansion, Lynn Weigand

### TECHNOLOGY TRANSFER

- Development of Mobile Mapping Technology to Facilitate Dialog between Transportation Agencies and the Public, Ken Kato

OTREC received a total of 44 proposals with a request of \$4.5 million for consideration for the 2010-11 funding year. There were 27 proposals with multiple principal investigators; and 6 were multi-campus.

Table 1: Project selection summary

	Awarded	Submitted
Total Proposals	25	44
Research	21	33
Education	3	6
Tech Transfer	1	2
Multi-campus	7	6
Multi-PI	20	27

### About OTREC

OTREC is a National University Transportation Center created by Congress in 2005. A partnership between Portland State University, the University of Oregon, Oregon State University, and the Oregon Institute of Technology, OTREC is dedicated to stimulating and conducting collaborative multi-disciplinary **research** on multi-modal surface transportation issues; **educating** a diverse array of current practitioners and future leaders in the transportation field; and encouraging **implementation** of relevant research results. Through collaboration and partnerships with transportation agencies, industry, and other universities in the Northwest, OTREC's theme focuses on advanced technologies; integration of land use and transportation; and healthy communities.

### Contact Us

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