

Carolina Baumanis

301 E. Dean Keeton St. Stop 1761
Austin, TX 78712

cbaumanis@utexas.edu
(832) 704-1519

EDUCATION

- Doctor of Philosophy, Civil Engineering **Expected: December 2021**
The University of Texas at Austin, Cockrell School of Engineering, GPA: 3.97/4.00
- Master of Science, Civil Engineering **December 2018**
The University of Texas at Austin, Cockrell School of Engineering
- Bachelor of Science, Geophysics and Seismology **May 2015**
The University of Texas at Austin, Jackson School of Geosciences

EXPERIENCE

Center for Transportation Research at The University of Texas at Austin **June 2015-Present**
Research Engineering/Scientist Associate **Austin, TX**

- Conducting research on a wide variety of topics ranging from active transportation to traffic operations
- Collaborating on multiple technical reports, journal publications, and poster presentations
- Managing the overall research program for a tenured professor in Transportation Engineering
- Writing grants, proposals, contracts, literature reviews and budgets
- Presenting results on research efforts to sponsors throughout project duration
- Mentoring and supervising undergraduate research assistants
- Training new-hires, including graduate research assistants
- Maintaining budgets and budget projections for multiple research accounts
- Planning, fundraising, and executing the TRB UT Austin Annual Reception in Washington, D.C.

Jackson School of Geosciences **July 2012- June 2015**
Undergraduate Research Assistant **Austin, TX**

- Presented Poster at AGU for Reverse Migration of Lithofacies Boundary, December 2015
- Conducting experiments on the Migration of Grain-size Transitions
- Completed experiments for Progradation of a Delta on a Mobile Substrate
- Presented poster on the Progradation of a Delta on a Mobile Substrate at AAPG ACE 2014 and the RioMar Consortium Annual Meeting; Abstract featured at the 2015 JSG Annual Symposium
- Ran experiments for Meandering Rivers on Mars
- Helped write and finalize various technical papers for publication in scientific journals

Schlumberger **June 2014-August 2014**
Schlumberger Information Solutions PetroTechnical Intern **Houston, TX**

- Planned new future Petrel functionalities in the form of a plug-in to address current technology gaps; conducted client interviews for feedback on proposed Petrel functionalities
- Gained proficiency with Petrel 2013/2014 and tested pre-alpha version of Petrel 2015
- Interpreted seismic data in Petrel

UNDER REVIEW

Baumanis, C. and Machemehl, R., Li, Y. "Driver Yielding Behavior Among Various Low-Cost Pedestrian Crossing Treatments" *Submitted for presentation and publication at the 100th Annual Meeting of the Transportation Research Board, Washington, D.C., January 2021.*

CONFERENCE PROCEEDINGS

Liu, H., **Baumanis, C.**, Machemehl, R., Li, Y. "A Simulation-based Paradox: Longer Blockage, Less Delay?", *99th Annual Meeting of the Transportation Research Board, Washington, D.C., January 2020.*

Baumanis, C., Hall, J. and Machemehl, R., Comparing Unsafe Cyclist Behavior Among Three Urban Test Beds in Austin, TX, *Canadian Society of Civil Engineers Annual Meeting, Fredericton, BC, June 2018.*

Liu, Hao, **Baumanis, C.**, and Machemehl, R., Impacts of Lane Blockages on Urban Networks, *Canadian Society of Civil Engineers Annual Meeting, Fredericton, BC*, June 2018.

Chen, Amber, Alrashidan, A., Bujanovic, P., Machemehl, R., and **Baumanis, C.**, Comparing Bus Priority System Logic Concepts Using Conditionally Active Signal Control in Austin, Texas, *96th Annual Meeting of the Transportation Research Board, Washington, D.C.*, January 2017.

Baumanis, C. and Kim W., Migration Reversals in Grain-size Transitions to Shoreline, Poster presented at AGU Fall Meeting, December 2015.

Baumanis, C. and Kim, W., The Progradation of a Delta on a Mobile Substrate, Poster presented at AAPG ACE Annual convention and Exhibition, April 2014.

REFEREED JOURNAL PUBLICATIONS

Dunn, M., Ross, H., **Baumanis, C.**, Wall, J., Lammert, J., Duthie, J., Ruiz Juri, N. and Machemehl, R. (2019). Data-Driven Methodology for Prioritizing Traffic Signal Retiming Operations. *Transportation Research Record: Journal of the Transportation Research Board*, p.036119811984323.

Baumanis, C. and Kim, W. (2016), Reverse migration of lithofacies boundaries and shoreline in response to sea-level rise. *Basin Res.* doi:10.1111/bre.12209

TECHNICAL ORAL PRESENTATIONS

Baumanis, C., Meyer, J., and Machemehl, R. "Effect of Pedestrian Crossing Facilities on Driver Yielding Propensity". *Presented at the Joint ITE International and Texas District Annual Meeting*. July 2019.

Baumanis, C., Hall, J. and Machemehl, R., Comparing Unsafe Cyclist Behavior Among Three Urban Test Beds in Austin, TX, *Presented at Canadian Society of Civil Engineers Annual Meeting, Fredericton, BC*. June 2018.

Liu, Hao, **Baumanis, C.**, and Machemehl, R., Impacts of Lane Blockages on Urban Networks, *Presented at Canadian Society of Civil Engineers Annual Meeting, Fredericton, BC*. June 2018.

TECHNICAL REPORTS

Baumanis, C. and Machemehl, R., "Driver Yielding to Pedestrians: Experimental Field Study and Survey Results", *Report for the City of Austin*, The University of Texas, Center for Transportation Research, July 2020.

Murphy, Michael, Jiang, N, Han, Z., Hazlett, D. **Baumanis, C.**, Ahsan, A., Machemehl, R., Zhang, Z., "Economic and Safety Considerations: Motor Vehicle Safety Inspections for Passenger Vehicles in Texas", *Report for the Texas Department of Public Safety*, The University of Texas at Austin, Center for Transportation Research, October 2018.

Murphy, Michael, Han, Z., Jiang, N, Hazlett, D., **Baumanis, C.**, Zhang, Z., Machemehl, R., Harrison, R., "Evaluating Safety and Economic Impacts of Texas Travel Information Centers", *Report for the Texas Department of Transportation Travel Information Division*, The University of Texas at Austin, Center for Transportation Research, October 2018.

Liu, Hao, **Baumanis, C.**, and Machemehl, R., Evaluation of Right-of-Way Fees in Urban Networks, *Report for the City of Austin*, Center for Transportation Research, The University of Texas Austin, June 2018.

Machemehl, R., Smith, L., Zuehlke, J., Gutekunst, J., Motamed, M., Alrashidan, A., LaVaye, C., and **Baumanis, C.**, Preparing for Increased Petroleum Prospecting in Tamaulipas, Mexico, *Report for the Mexican State of Tamaulipas*. Center for Transportation Research, the University of Texas at Austin, June 2016.

Zuehlke, J., **Baumanis, C.**, and Machemehl, R., No Trucks Left Lane, *Report for the TxDOT Austin District*. Center for Transportation Research, the University of Texas at Austin, August 2015.

PROJECTS

- City of Austin Interlocal Agency Contract: Task 5: Bicycle Signals. 2016-present.
- CAMMSE, Tier 1 University Transportation Centers Program. 2017 – present.
- Dallas District (TxDOT) Interlocal Agency Contract. 2015-present.
- Austin District (TxDOT) Interlocal Agency Contract. 2015-present.
- City of Austin Interlocal Agency Contract: Task 18: Need-based Signal Retiming. 2018-present.
- City of Austin Interlocal Agency Contract: Task 9: Driver Yielding Compliance. 2016-2020.
- Phase 2: Preparing for Increased Petroleum Prospecting in Tamaulipas, Mexico. 2018-2019.
- City of Austin Interlocal Agency Contract: Task 16: Safety Project Evaluation. 2019.
- Texas Dept of Public Safety IAC: Motor Vehicle Safety Inspections for Passenger Vehicles. 2018.
- Texas Dept of Public Safety IAC: Evaluating Safety & Economic Impacts of Travel Information Centers. 2018.
- City of Austin Interlocal Agency Contract: Evaluation of Right-of-Way Fees. 2017.
- Preparing for Increased Petroleum Prospecting in Tamaulipas, Mexico. 2016.
- Capital Metro Interlocal Agency Contract: Estimating the Full Cost of Commute in Austin. 2016.

UNIVERSITY COMMITTEE ASSIGNMENTS

Parking and Traffic Appeals Panel	2018-2019
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PROFESSIONAL SOCIETIES

Institute of Transportation Engineers, Member	2017-present
Women in Transportation Seminar, Member	2017-present
Women in Transportation Seminar, Board Member	2017-2018

HONORS AND AWARDS

Outstanding Student of the Year Award, U.S. Department of Transportation	2019
Cockrell School of Engineering Thrust 2000 Fellow	2017-2020
Mr. and Mrs. L. F. McCollum Scholarship in Geology	2014
John C. and Marian B. Maxwell Endowed Undergraduate Scholarship in Geological Sciences	2013-2014
Jackson Undergraduate Support Fund Scholarship for Geological Sciences Students	2012-2013
Greater Texas Foundation Endowed Scholarship in Geosciences Recipient	2011-2012
John and Cheryl Johns Endowment Recipient	2011-2012

COMMUNITY ACTIVITIES

Figure Skating Coach	2011-present
Basic Skill Winner's Circle Competition Judge	