

## **PINAR OMUR-OZBEK, Ph.D.**

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### **EDUCATION**

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- Ph.D. in Environmental Engineering** **December 2008**  
*Virginia Polytechnic Institute and State University, Blacksburg, VA*  
Dissertation: "Macromolecular Reactions and Sensory Perception at the Air-Water-Human Interface"
- M.S. in Environmental Engineering** **December 2004**  
*Virginia Polytechnic Institute and State University, Blacksburg, VA*  
Thesis: "Determination of Henry's Law Constants of Odorous Contaminants and Their Application to Human Perception"
- B.S. in Environmental Engineering** **June 2002**  
*Middle East Technical University (METU), Ankara, Turkey*
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### **RELATED EXPERIENCE**

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- Teaching Associate Professor** **August 2019 – Present**  
*Colorado State University, Fort Collins, CO*  
Teaching senior level courses on environmental engineering and laboratory practices, conducting engineering education research, participating in outreach and committee activities within the department, college, university and Northern Colorado
- Professor of Practice** **August 2017 – August 2019**  
*Colorado State University, Fort Collins, CO*  
Teaching senior level courses on environmental engineering and laboratory practices, developing research ideas and proposals, conducting research with graduate students, participating in outreach and committee activities within the department, college, and Northern Colorado
- Assistant Professor** **August 2011 – August 2017**  
*Colorado State University, Fort Collins, CO*  
Teaching senior level courses on environmental engineering and laboratory practices, developing research ideas and proposals, conducting research with graduate students, participating in outreach and committee activities within the department, college, and Northern Colorado
- Research Assistant Professor** **January 2009 – July 2011**  
*Colorado State University, Fort Collins, CO*  
Teaching senior level courses on environmental engineering and laboratory practices, developing research ideas and proposals
- Graduate Research Assistant** **March 2003 – August 2008**  
*Virginia Tech, Blacksburg, VA*  
Conducted research in the taste and odor laboratory for water quality and sensory analyses of drinking water, food science and technology laboratory for lipid oxidation analyses, and biomedical sciences and engineering laboratory for cell culturing and protein analyses

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## HONORS AND AWARDS

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- CSU CEE Faculty Award for Excellence in Teaching **2022**
- CSU CEE Faculty Award for Excellence in Service **2022**
- Fellow of the Faculty Institute for Inclusive Excellence **2022**
- AWWA Best Poster Award at AWWA Joint RMWEA/*RMSAWWA* Conference **2012**
- ASCE Excellence in Civil Engineering Education Teaching Fellowship **2010**
- NSF Travel Award to attend NSF CAREER Workshop at Iowa City, IA **2009**
- Best Student Paper Award at AWWA WaterJAM, Virginia Beach, VA **2008**
- Best Poster Award at 8<sup>th</sup> IWA Symposium on Off-Flavor in the Aquatic Environment, Seoul, Korea **2008**
- Best Mentor Award from the NSF SURP, Virginia Tech, VA **2008**
- Second Place Poster Award, 22<sup>nd</sup> Research Symposium at Virginia Tech, VA **2006**
- Scholarship for Best Student Presentation at 7th IWA Symposium on Off-Flavor in the Aquatic Environment, Cornwall, Canada **2005**
- Best Poster Award, AWWA Annual Conference, Orlando, Florida **2004**
- Edna D. Bailey Sussman Environmental Science and Engineering Fellowship **2003**

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## RESEARCH INTERESTS

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### **Surface and Drinking Water Quality**

- Impacts of wildfires and retardants on surface and drinking water quality
- Occurrence of and exposure to chemical spills in source and drinking waters
- Effects of climate change on algal tastes, odors and toxins in source waters
- Advanced treatment methods for taste & odor, and toxin removal from drinking water
- Occurrence of algal metabolites in source waters and their adverse health effects
- Consumer perception of drinking water
- Sensory analysis of tastes-and-odors in drinking water

### **Wastewater Treatment and Contaminants of Concern**

- Nutrient discharge to surface waters through wastewater effluent and their modeling
- Siloxanes in waste activated sludge and issues with scaling on boilers

### **Indoor Air Modeling**

- Exposure of humans to volatile organic contaminants in drinking water

### **Interdisciplinary**

- Investigating produced water quality for various fracking fluids and after treatment
- Algal toxin accumulation in crops due to irrigation with contaminated water
- Fate and transport of toxins in surface and ground waters and agricultural soils
- Exposure of humans to contaminants in drinking water
- Toxicity of algal toxins in drinking water after advanced oxidation – cell culturing
- Understanding the off-flavor perception of cancer patients
- Impacts of toxins in irrigation water on crop growth and quality

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## FUNDED RESEARCH PROJECTS

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### Principal Investigator

American Councils for International Education, Central Asia University Partnership Program (UniCEN) (\$24,000 + \$5,000 for January-September 2022)  
Training New Generation of Engineers to Face Global Water Challenges

Thompson School District (\$25,000 for May 2018 – July 2019)

Lead Sampling in Elementary and Middle Schools in Thompson School District

Agricultural Experiment Station (\$85,425, (\$28,475/year) for July 2015 – June 2018)

Occurrence of Toxic Algal Metabolites in Irrigation Ponds and their Impact on Crops

COE Interdisciplinary Proposal (\$13,500 for November 2014-June 2015)

Evaluating Hairy Roots as a Model System to Evaluate and Offset the Impacts of Algal Toxins on Crop Growth

Denver Water (\$33,500 for February 2014-November 2014)

Evaluation of Pre-oxidation and Adsorption for Taste and Odor Control

Water Research Foundation/CU Boulder (\$8,905 for October 2013-October 2016)

The Impact of Colorado Wildfires on Source Water Quality and Implications for Water Treatment and Finished Water Quality

City of Fort Collins Water Treatment Plant (\$10,000 for October 2013 – August 2014)

Smoky Flavors in Poudre River Water due to High Park Fire, Its Sensory and Analytical Detection and Treatment

Agricultural Experiment Station (\$85,983 (\$28,661/year) for July 2012 – June 2015)

Occurrence of Toxic and Odorous Algal Metabolites in Irrigation and Stock Ponds

Colorado Water Institute (\$5,000 for March 2012 – March 2013)

Biowin Simulation to Assess Alternative Treatment Units for a Local Wastewater Treatment Plant to Meet the New Effluent Standards

City of Loveland Water Treatment Plant (\$19,293 for October 2011 – October 2012)

BioWin Modeling/Simulation for Biological Nutrient Removal Expansion Improvements

American Water Works Association (\$28,701 for July 2011 – March 2012)

Global Taste and Odor Survey of Drinking Water Utilities

Colorado Water Institute (\$4,980 for March 2011 – March 2012)

The Efficacy of the Use of Moringa Oleifera Seeds to Remove Metabolites of Cyanobacteria from Drinking Water

City of Fort Collins Water Treatment Plant (\$10,000 for September 2010 – May 2011)

Geosmin Removal by Powdered Activated Carbon over Selected Contact Times

Colorado State University (Internal RFP, \$6,700 for November 2010 – April 2011)

Removal of Algal Toxins from Drinking Water by Moringa Oleifera Seeds

### Services Contracts

City of Greeley Water Treatment Plant (~\$ 3,250 since July 2016 - 2018)

Monitoring odorants in the source and finished water

Lafourche Parish Water Treatment Plant, Thibodaux, LA (~\$16,200 since June 2015 - 2018)

Monitoring odorants in the source and finished water

City of Wellington Water Treatment Plant (~\$7,500 since May 2014 – 2018)

Monitoring odorants in the source and finished water

City of Erie Water Treatment Plant (~\$ 35,500 since July 2011 - 2018)

Monitoring odorants in the source and finished water

City of Fort Morgan Water Treatment Plant (~\$7,300 since May 2013 – October 2015)

Monitoring odorants in the source and finished water  
City of Loveland Water Treatment Plant (~\$80,350 since June 2010 - 2018)  
Monitoring odorants in the source and finished water  
City of Louisville Water Treatment Plant (~\$10,000 July 2011 – November 2013)  
Monitoring odorants in the source and finished water  
City of Fort Collins Wastewater Treatment Plant (~\$11,000 August –December 2013)  
Monitoring volatile fatty acids in wastewater samples  
City of Longmont Water Treatment Plant (~\$10,000 March 2012 – November 2013)  
Monitoring geosmin levels in the source and finished water  
City of Thornton Water Treatment Plant (~\$12,000 October 2012 – November 2013)  
Monitoring odorants in the source and finished water  
Consolidated Mutual Water Company (~\$20,000 June 2011 – October 2013)  
Monitoring odorants in the source and finished water  
City of Boulder Water Treatment Plant (~\$500 June 2012)  
Monitoring odorants in the source and finished water  
Farnsworth Consulting Company (~\$1,000 August - December 2012)  
Monitoring odorants in the source and finished water

**Other Awards**

CSU Libraries. Digital Open Educational Resources Grant. (\$8,000). (2022-2023 AY)  
Colorado State University (Internal RFP, \$12,100 for Equipment, 2017)  
Purchase of air quality measurement instruments with other CEE faculty  
Colorado State University (Internal RFP, \$20,000 for Equipment, 2012)  
Purchase of a GC/FID with other CEE faculty

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**PROPOSAL PREPARATION**

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Co-authored the proposal entitled “Training New Generation of Engineers to Face Global Water Challenges” submitted to American Councils for International Education, Central Asia University Partnership Program (UniCEN), in December 2021. PI: Dr. Pinar Omur-Ozbek, Co-PIs: Dr.Ketul Popat, Dr.DaeSeok Chai, Dr.Christie Peebles. Awarded. \$24,000.

Authored the proposal entitled “Modelling Fate and Transport of Cyanotoxins in Porous Media” submitted to NSF, in October 2017. PI: Dr. Pinar Omur-Ozbek, Co-PI: Dr. Ryan Bailey. Not awarded. \$208,101.

Co-authored the proposal entitled “Project Delivery Performance Evaluation and Decision Support Tool for Water and Wastewater Capital Projects” submitted to WRF in August 2016. PI: Dr. Kelly Strong, Co-PI: Dr. Pinar Omur-Ozbek, Co-PI: Dr. Mehmet Ozbek. Not awarded. \$149,998.

Co-authored the proposal entitled “Developing phytoremediation techniques to mitigate cyanotoxins impact on crops and water quality” submitted to NSF in October 2015. PI: Dr. Pinar Omur-Ozbek, Co-PI: Dr. Christie Peebles. Not awarded. \$564,006.

Authored the proposal entitled “Evaluation of Pre-oxidation and Adsorption for Taste and Odor Control” submitted to Denver Water, in January 2014. PI: Dr. Pinar Omur-Ozbek, Co-PI: Ken Carlson. Awarded. \$33,500.

Authored the proposal entitled “Wildfire Ash Effects on Water Quality” submitted to Michigan Technological University as a sub-award for a Joint Fire Science project, in December 2013. PI: Dr. Pinar Omur-Ozbek. Not awarded. \$177,185.

- Authored the proposal entitled “The Impact of Colorado Wildfires on Source Water Quality, Water Treatment and Finished Water Quality” submitted to CU Boulder as a sub-award for a WRF project, in September 2013. PI: Dr. Pinar Omur-Ozbek. Accepted. \$8,905.
- Co-authored the proposal entitled “Evaluation of Different Types of Waterproofing Membranes (Asphaltic and Non-asphaltic) as Cost Effective Bridge Deck Barriers in Reducing Corrosive” submitted to CDOT in May 2013. PI: Dr. Rebecca Atadero. Not awarded. \$59,662.
- Authored the proposal entitled “BRIGE: Predicting Algal Taste and Odor Episodes in Source Waters Using Satellite Intelligence” submitted NSF in February 2013. PI: Dr. Pinar Omur-Ozbek. Not awarded. \$174,981.
- Authored the proposal entitled “Occurrence of Siloxanes in Wastewater, Waste Activated Sludge and Biogas, and Their Removal with Advanced Oxidation” submitted to NSF in January 2013. PI: Dr. Pinar Omur-Ozbek. Not awarded. \$185,096.
- Co-authored the proposal entitled “ADVANCE PAID: CSU NOW - Networking and Mentoring Opportunities for Women in Academia” submitted to NSF in November 2012. PI: Dr. Pinar Omur-Ozbek, Co-PI’s: Dr. Rebecca Atadero, Dr. Susan James, and Dr. Lynn Hempel. Not awarded. \$527,211.
- Authored the proposal entitled “Smoky Flavors in Poudre River Water due to High Park Fire, Its Sensory and Analytical Detection and Treatment” submitted to City of Fort Collins Drinking Water Utility in September 2012. PI: Dr. Pinar Omur-Ozbek. Awarded. \$10,000.
- Authored the proposal entitled “Occurrence of Toxic and Odorous Algal Metabolites in Irrigation and Stock Ponds” submitted to Agricultural Experiment Station in May 2012. PI: Dr. Pinar Omur-Ozbek. Awarded. \$28,661.
- Co-authored the “Concept Note for a Single Institution Center: USAID RFA-OAA-12-000004 Higher Education Solutions Network. Center for Accessible Diagnostics through Innovative Networks (CADIN): A Proposal to Expand Access to Diagnostic Services in West Africa through Innovative, Strategic Networks” submitted to USAID in March 2012. PI: Dr. Richard Bowen, Co-PI’s: Dr. Shana Gilette, Dr. Kristy Pabilonia, Dr. Pinar Omur-Ozbek. Not selected. \$19,826,445.
- Co-authored the proposal entitled “Filling Data Gaps in Environmental Impact Assessment of Microalgae-based Biofuels: Experimental Measurement of the Direct Emissions of Microalgae Photobioreactors” submitted to NSF in February 2012. PI: Dr. Pinar Omur-Ozbek, Co-PI’s: Dr. Thomas Bradley and Dr. Anthony Marchese. Not awarded. \$321,693.
- Co-authored the proposal entitled “Enhancement of Geosmin Prediction and Treatment Models with Phytoplankton Grazer Dynamics” submitted to NSF in February 2012. PI: Dr. Kimberly Catton, Co-PI’s: Dr. Pinar Omur-Ozbek and Dr. Sarah Spaulding. Not awarded. \$331,935.
- Authored the proposal entitled “Low-Cost Plasma Oxidation Technology to Reduce Off-Odors, Toxins, and Disinfection Byproduct Precursors in Drinking Water” submitted to NSF as a subcontractor to Symbios Technologies, LLC in December 2011. PI: Dr. Pinar Omur-Ozbek, Not awarded. \$38,262.
- Authored the proposal entitled “BioWin Modeling/Simulation for Biological Nutrient Removal Expansion Improvements” submitted to City of Loveland Water and Wastewater Treatment Plant in October 2011. PI: Dr. Pinar Omur-Ozbek. Awarded. \$19,293.
- Authored the proposal entitled “Implementation of a New Low-Cost Plasma Oxidation Technology to Small Systems to Remove Off-Flavors and Selected Emerging Contaminants from Drinking” submitted to EPA in August 2011. PI: Dr. Pinar Omur-Ozbek. Not awarded. \$463,150.
- Co-authored the proposal entitled “Green Building Design: Water Quality and Utility Management Considerations” submitted to Water Research Foundation in June 2011. PI: Dr. Pinar Omur-Ozbek, Co-PI’s: Dr. Caroline Clevenger and Dr. Mehmet Ozbek. Not awarded. \$275,000.

- Co-authored the proposal entitled “Impact of Climate Change on the Ecology of Algal Blooms” submitted to Water Research Foundation in June 2011. PI: Dr. Kimberly Catton, Co-PI’s: Dr. Pinar Omur-Ozbek, Dr. Mazdak Arabi and Dr. Scott Summers. Not awarded. \$240,000.
- Authored the proposal entitled “Taste and Odor Survey of Water Utilities around the Globe” submitted to Technical and Education Council of AWWA in May 2011. PI: Dr. Pinar Omur-Ozbek. Awarded. \$28,701.
- Co-authored the proposal entitled “Measurement and Evaluation of Direct Pollutant Emissions from Microalgae Biofuel Reactors for a Holistic Life Cycle Assessment” submitted to NSF in March 2011. PI: Dr. Pinar Omur-Ozbek, Co-PI’s: Dr. Thomas Bradley and Dr. Anthony Marchese. Not awarded. \$295,790.
- Authored the proposal entitled “BRIGE: Investigation of a Sustainable and Cost Effective Method for Algal Toxin and Odorant Removal from Drinking Water” submitted to NSF in January 2011. PI: Dr. Pinar Omur-Ozbek. Not awarded. \$155,668.
- Co-authored the proposal entitled “ADVANCE PAID: CSU NOW – Face-to-face and Web-based Networking Opportunities for Women to Promote Success in Academia” submitted to NSF in November 2010. PI: Dr. Rebecca Atadero, Co-PI’s: Dr. Pinar Omur-Ozbek and Dr. Lynn Hempel. Not awarded. \$322,821.
- Co-authored the proposal entitled “Optimization of Algal Biofuel Production Processes to Eliminate Emission of the Potent Green House Gas Nitrous Oxide” submitted to CES Internal Seed Grant. PI: Dr. Susan De Long, Co-PI’s: Dr. Thomas Bradley, Dr. Anthony Marchese and Dr. Pinar Omur-Ozbek. Not awarded. \$25,000.
- Co-authored the proposal entitled “Filling Data Gaps in Assessment of Environmental Impacts of Microalgae-based Biofuels: Experimental Measurement of the Direct Emissions of Microalgae Photobioreactors” submitted to NSF in September 2010. PI: Dr. Pinar Omur-Ozbek, Co-PI’s: Dr. Thomas Bradley and Dr. Anthony Marchese. Not awarded. \$282,495.
- Co-authored the proposal entitled “IDR: The Effect of Stratification and Predator-Prey Interactions on the Production and Transport of Geosmin in Reservoirs During Algal Blooms” submitted to NSF in December 2009. PI: Dr. Kimberly Catton, Co-PI’s: Dr. Pinar Omur-Ozbek and Dr. Sarah Spaulding. Not awarded. \$499,701.
- Co-authored the proposal entitled “Mechanisms of Metallic Flavor from Drinking Water” submitted to Institute for Public Health and Water Research. PI: Dr. Andrea M. Dietrich, Co-PI’s: Drs. Susan Duncan and YongWoo Lee. Awarded. \$200,000 for July 2006-2008.

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## PAPERS AND PRESENTATIONS

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### Peer Reviewed Articles

1. Kalan, D.; Ozbek, M.E.; **Omur-Ozbek, P.**; Dooley, G. **2022**. Case Study: Comparison of Disinfection By-product Formations Between LEED-Certified and Non-LEED Certified Buildings. *Developments in the Built Environment*. 12:100100
2. Koc, K.; Gurgun, A.P.; Ozbek, M.E.; Kalan, D.; Clevenger, C.; **Omur-Ozbek, P.** **2022**. Comparative Analysis of Work-Life Balance Perceptions of Civil Engineering Students. *Journal of Civil Engineering Education*. 148:2:04021016
3. Kim, S.; **Omur-Ozbek, P.**; Carlson K. **2020**. Characterization of Organic Matter in Water from Oil and Gas Wells Hydraulically Fractured with Recycled Water. *Journal of Hazardous Materials*. 397:5October:120551.
4. Kim, S.; Sick, B.; **Omur-Ozbek, P.**; Carlson K.H. **2019**. Investigating the influence of hydraulic fracturing fluid type and well age on produced water quality: chemical composition, and treatment and reuse challenges. *Desalination and Water Treatment*. 146:39-56.
5. Cawley, K.M.; Hohner, A.K., McKee, G.A.; Borch, T.; **Omur-Ozbek, P.**; Oropeza, J.; Rosario-Ortiz, F.L. **2018**. Characterization and spatial distribution of particulate and soluble carbon and nitrogen from wildfire-impacted sediments. *Journal of Soils and Sediments*. 18:4:1314-1326. doi:10.1007/s11368-016-1604-1
6. Kim, S.; **Omur-Ozbek, P.**; Dhanasekar, A.; Prior, A.; Carlson, K. **2016**. Temporal Analysis of Flowback and Produced Water Composition from Oil and Gas Operations: Impact of Frac Fluid Characteristics. *Journal of Petroleum Science and Engineering*. 147:202-210.
7. Esmaeilirad, N.; Carlson, K.; **Omur-Ozbek, P.** **2015**. Influence of Softening Sequencing on Electrocoagulation Treatment of Produced Water. *Journal of Hazardous Materials*. 283:721-729.
8. **Omur-Ozbek, P.**; Dietrich, A.M.; Duncan, S.E.; Lee, Y.W. **2012**. Role of Lipid Oxidation, Chelating Agents, and Antioxidants in Metallic Flavor Development in the Oral Cavity. *Journal of Agricultural and Food Chemistry*. 60(9), 2274-2280.
9. **Omur-Ozbek, P.**; Dietrich, A.M. **2011**. Retronasal Perception and Flavor Thresholds of Iron and Copper in Drinking Water. *Journal of Water and Health*. 9(1), 1-9.
10. **Omur-Ozbek, P.**; Gallagher, D.L.; Dietrich, A.M. **2011**. Determining Human Exposure and Sensory Detection of Odorous Compounds Released During Showering. *Environmental Science and Technology*. 45(2), 468-473.
11. Hong, J.H.; **Omur-Ozbek, P.**; Stanek, B.T.; Dietrich, A.M.; Duncan, S.E.; Lee, Y.W.; Lesser, G. **2009**. Taste and Odor Abnormalities in Cancer Patients. *Journal of Supportive Oncology*. 7(2), 58-65.
12. **Omur-Ozbek, P.**; Dietrich, A.M. **2008**. Developing Hexanal as an Odor Reference Standard for the Sensory Analysis of Drinking Water. *Water Research*. 42(10/11), 2598-2604.
13. **Omur-Ozbek, P.**; Little, J.; Dietrich, A.M. **2007**. Ability of Humans to Smell Major Odorants in Indoor Air When Using Contaminated Drinking Water. *Water Science and Technology*. 55(5), 249-256.
14. **Omur-Ozbek, P.**; Dietrich, A.M. **2005**. Determination of Temperature-Dependent Henry's Law Constants of Odorous Contaminants and Their Application to Human Perception. *Environmental Science and Technology*. 39(11), 3957-3963.

### Articles Under Review/In Submittal/In Preparation

1. Kim, S.; **Omur-Ozbek, P.**; Carlson K.; Son, J.H. **2020**. Organic and inorganics from flowback and produced water from shale gas operation: treatment and identification of

glycols using gas chromatography–mass spectrometry. *Under review: Environmental Science and Technology*

2. **Omur-Ozbek, P.**; Akalp, D.; Whelton, A. Tap Water and Indoor Air Contamination due to an Unintentional Chemical Spill in Elk River, West Virginia. *In submission to: Water Research.*
3. **Omur-Ozbek, P.**; Koester, K.; Billica, J. Modeling Geosmin Removal for Surface Waters with Powdered Activated Carbon. *In preparation for: Journal of American Water Works Association.*
4. **Omur-Ozbek, P.** Taste and Odor Survey of Drinking Water Utilities: The Sequel. *In preparation for: Journal of American Water Works Association.*
5. Sam, V.; Sampath, M.; **Omur-Ozbek, P.** Concurrent Removal of Algal Odorants and Toxins with PAC and Advanced Oxidation Methods. *In preparation for: Journal of Environmental Eng. Science.*
6. Zhang, Y.; Kulkarni, H.; **Omur-Ozbek, P.** Occurrence and Fate of Siloxanes in Wastewater Treatment Plants in Northern Colorado. *In preparation for: Journal of Environmental Toxicology and Chemistry.*
7. Parr, G.; Catton, K.; **Omur-Ozbek, P.** Modeling geosmin occurrence in Northern Colorado Surface Waters. *In preparation for: Lake and Reservoir Management.*
8. **Omur-Ozbek, P.**; Steninger, C.; Morgensen, B. Short- and Long-Term Impacts of a Wildfire on Water Quality: Sensory and Chemical Aspects. *In preparation for: Journal of American Water Works.*
9. Venkatapathi, K.; **Omur-Ozbek, P.** Biowin Simulation of a Wastewater Treatment Plant to Meet the New Nutrient Discharge Regulation of CDPHE. *In preparation for: Journal of Environmental Engineering.*
10. **Omur-Ozbek, P.** Successful Reservoir Management Techniques for Taste-and-Odor Control in Northern Colorado. *In preparation for: Journal of American Water Works.*
11. **Omur-Ozbek, P.**; Dietrich, A.M.; Duncan, S.E.; Lee, Y.W. Using KB Cell Cultures as a Model to Study and Prevent the Metallic Flavor Production in Mouth due to Oral Epithelial Cell Membrane Phospholipids Oxidation by Iron and Copper. *In preparation for: Journal of Free Radical Biology and Medicine.*

### Conference Proceedings Papers

1. Clayton, P.; Castaneda, D.; Palomo, M.; Rodak, C.; Kulesza, S.; **Omur-Ozbek, P.** **2022.** ASCE's Response to the Pandemic: A Virtual ExCEED Community Exchange. 2022 ASEE Annual Conference & Exposition, Civil Engineering Division ASCE Liaison Committee - Supporting the Development of the Next Civil Engineers, Minneapolis, MN. (June). (Peer-reviewed)
2. Morse, A.; Clayton, P.; Rodak, C.; Henschen, J.; **Omur-Ozbek, P.**; Riley, C.; Saftner, D.; Cioffi, A. **2022.** ASCE's Response to the Pandemic: Development of a Remote ExCEED Teaching Workshop. 2022 ASEE Annual Conference & Exposition, Civil Engineering Division ASCE Liaison Committee - Supporting the Development of the Next Civil Engineers, Minneapolis, MN. (June). (Peer-reviewed)
3. Estes, A.; Salyards, K.; Saviz, C.; Clayton, P.; Davis, J.; Fleischmann, C.; Nilsson, T.; **Omur-Ozbek, P.**; Ozis, F.; Palomo, M.; Rodak, R.; Rutherford, C.; Torres-Machi, C.; Coward, D.; Nolen, L. **2022.** ASCE's Response to the Pandemic: Execution of a Remote ExCEED Teaching Workshop. 2022 ASEE Annual Conference & Exposition, Civil Engineering Division ASCE Liaison Committee - Supporting the Development of the Next Civil Engineers, Minneapolis, MN. (June). (Peer-reviewed)
4. Ghorbani, M.; Maciejewski, A.A.; Siller, T.J.; Chong, E.K.P.; **Omur-Ozbek, P.**; Atadero, R.A. **2018.** Incorporating ethics education into an electrical and computer engineering



undergraduate program. 2018 ASEE Annual Conference & Exposition, Engineering Ethics Division, Technical Session 5, Salt Lake City, UT. (June). (Peer-reviewed)

5. Akalp, D., Ozbek, M.E., **Omur-Ozbek, P. 2017**. Construction Management Students' Perceptions on Work-Life Balance. ISEC-9-The Ninth International Structural Engineering and Construction Conference Valencia, Spain. (July). (Peer-reviewed)
6. **Omur-Ozbek, P.**; Akalp, D.; Whelton A. **2016**. Tap Water and Indoor Air Contamination due to an Unintentional Chemical Spill in Source Water. Euro-Med-Sec, Istanbul, Turkey (May). Interaction between Theory and Practice in Civil Engineering and Construction, Edited by: Komurlu, R.; Gurgun, A.P.; Singh, A.; Yazdani, S. ISEC Press, 597-602. ISBN: 978-0-9960437-2-4.
7. **Omur-Ozbek, P.**; Dietrich, A.M. **2008**. Metallic Flavored Drinking Water with Iron and Copper. AWWA WaterJAM, Virginia Beach, VA (September).
8. Tucker, C.L.; **Omur-Ozbek, P.**; Dietrich, A.M. **2007**. Determination of the Taste Flavor Threshold of Iron in Water. VWWRs, Blacksburg, VA (November).
9. **Omur-Ozbek, P.**; Dietrich, A.M. **2007**. Finding an Odor Standard for the Flavor Profile Analysis of Drinking Water. AWWA WQTC, Charlotte, NC (November).
10. **Omur-Ozbek, P.**; Little, J.; Dietrich, A.M. **2005**. Ability of Humans to Smell Major Odorants in Indoor Air When Using Contaminated Drinking Water. 7<sup>th</sup> IWA Specialty Symposium, Cornwall, Ontario, Canada (October).
11. **Omur-Ozbek, P.**; Dietrich, A.M. **2004**. FPA Intensity Does Not Always Correlate with Vapor or Aqueous Phase Concentration of Problematic Odorous Compounds. AWWA WQTC, San Antonio, TX (November).

### Technical Report

1. IWA Specialist Group including: **Omur-Ozbek, P. 2018**. Tastes, Odours, and Algal Toxins in Drinking Water Resources and Aquaculture. As a part of the report: Global Trends & Challenges in Water Science, Research and Management.

### Oral and Poster Presentations

1. **Omur-Ozbek, P. 2022**. Promoting environmental justice awareness under the umbrella of diversity, equity and inclusion. Oral presentation at the RMSAWWA/RMWEA Conference in Keystone, CO (September).
2. Nezat, C.; **Omur-Ozbek, P. 2019**. Algal Toxins in Agricultural Environments: Implications for Human Health. Hydrology Days. Fort Collins, CO. (March).
3. Nezat, C.; **Omur-Ozbek, P. 2018**. Determining fate and transport of cyanotoxins in the environment. Modeling for Sustainable Food-Energy-Water Systems. 9th International Congress on Environmental Modeling and Software. Fort Collins, CO, (June).
4. **Omur-Ozbek, P. 2016**. Detection of Cyanotoxins in Environmental Samples. Oral presentation at the RMSAWWA/RMWEA Conference in Keystone, CO (September).
5. Akalp, D.; **Omur-Ozbek, P.**; Whelton A. **2016**. Indoor Air Contamination due to an Unintentional Chemical Spill in Elk River, Lessons Learned. Oral presentation at the AWWA ACE Conference in Chicago, IL (June).
6. **Omur-Ozbek, P.**; Akalp, D.; Whelton A. **2016**. Tap Water and Indoor Air Contamination due to an Unintentional Chemical Spill in Source Water. Oral presentation at the Euro-Med-Sec. Interaction between Theory and Practice in Civil Engineering and Construction Conference in Istanbul, Turkey (May).
7. **Omur-Ozbek, P.**; Kim, S.; Carlson, K. **2016**. Investigating the impacts of well age and fracturing fluid type on the quality and treatability of the produced water. Oral presentation at the 251<sup>st</sup> ACS National Meeting and Exposition in San Diego CA (March).

8. Kim, S.; **Omur-Ozbek, P.**; Carlson, K. **2016**. Comparison of organic matter in fresh and recycled water after simulation of fracturing conditions. Oral presentation at the 251<sup>st</sup> ACS National Meeting and Exposition in San Diego CA (March).
9. **Omur-Ozbek, P.** **2015**. Impacts of Wildfires and Fire Retardants on Water Quality. Oral presentation at the RMSAWWA/RMWEA Conference in Loveland, CO (September).
10. Sampath, M.; **Omur-Ozbek, P.** **2015**. Evaluation of Oxidation and Adsorption Techniques for Taste & Odor and Toxin Removal. Oral presentation at the RMSAWWA/RMWEA Conference in Loveland, CO (September).
11. Hohner, A.K.; Cawley, K.; **Omur-Ozbek, P.**; Summers, R. S.; Rosario-Ortiz, F.L. **2014**. Assessing Wildfire Impacted Source Water Quality and Treatability through a Lab-based Leaching Study. Oral presentation at the AWWA WQTC Conference in New Orleans, LA (November).
12. Morgensen, B.; **Omur-Ozbek, P.** **2014**. Effects of Wildfire Retardants on Surface Water Quality. Oral presentation at the 34th Hydrology Days, Fort Collins, CO (March).
13. Zhang, Y.; **Omur-Ozbek, P.** **2014**. Occurrence of Cyclic Volatile Methylsiloxanes in Surface Waters. Oral presentation at the 34th Hydrology Days, Fort Collins, CO (March).
14. **Omur-Ozbek, P.** **2013**. Impacts of the High Park Fire on Cache la Poudre River Water Quality. Oral presentation at the RMSAWWA Conference in Keystone, CO (September).
15. **Omur-Ozbek, P.** **2013**. Impacts of Wildfires on Water Quality. Oral presentation at the AWWA ACE Conference in Denver, CO (June).
16. **Omur-Ozbek, P.** **2013**. Global Taste and Odor Survey of Drinking Water Utilities. Poster presentation at the AWWA ACE Conference in Denver, CO (June).
17. Steninger, C.; **Omur-Ozbek, P.** **2013**. Impacts of High Park Fire on River Water Quality. Oral presentation at the 33<sup>rd</sup> Hydrology Days, Fort Collins, CO (March).
18. Parr, G.; **Omur-Ozbek, P.** **2013**. Predictive Modeling of Geosmin, a Taste and Odor Compound, in Northern Colorado Water Supplies. Oral presentation at the 33<sup>rd</sup> Annual American Geophysical Union Hydrology Days, Fort Collins, CO (March).
19. **Omur-Ozbek, P.**; Koester, K. Billica, J. **2012**. Modeling Geosmin Removal by Powdered Activated Carbon over Selected Doses and Contact Times. Poster presentation at the AWWA WQTC Conference in Ontario, Canada (November).
20. Venkatapathi, K.; **Omur-Ozbek, P.**; McGee, J. **2012**. Nutrients: Bring it on! Planning for the New Nutrient Management Control Regulations Using BioWin Biological Nutrient Removal Simulations for the Loveland WWTP. Oral Presentation at the RMSAWWA/RMWEA Joint Annual Conference in Copper Mountain, CO (September).
21. Sam, V.; **Omur-Ozbek, P.** **2012**. Removal of Odorous and Toxic Algal Metabolites of Concern Using Powdered Activated Carbon. Invited Poster Presentation at AWWA ACE Conference in Washington, D.C. (June).
22. Sam, V.; **Omur-Ozbek, P.** **2012**. Removal of Algal Metabolites of Concern Using Powdered Activated Carbon. Poster Presentation at the 9<sup>th</sup> Annual Joint RMWEA/RMSAWWA Student Conference. University of Colorado at Boulder, CO (May).
23. Kulkarni, H.; **Omur-Ozbek, P.**; McGee, J. **2012**. Determination of two Cyclosiloxanes and their Removal by Advanced Oxidation. Poster Presentation at the 9<sup>th</sup> Annual Joint RMWEA/RMSAWWA Student Conference. University of Colorado at Boulder, CO (May).
24. Venkatapathi, K.; **Omur-Ozbek, P.**; McGee, J. **2012**. Surface Water Eutrophication, Nutrient Management Control Regulations and Their Implications on Wastewater Treatment Plants' Operation. Poster Presentation at the 9<sup>th</sup> Annual Joint RMWEA/RMSAWWA Student Conference. University of Colorado at Boulder, CO (May).
25. Sam, V.; **Omur-Ozbek, P.** **2012**. The occurrence and Removal of the Cyanobacterial Metabolites Microcystin-LR and Geosmin from Source Waters. Oral presentation at the 32<sup>nd</sup> Annual American Geophysical Union Hydrology Days, Fort Collins, CO (March).

26. Kulkarni, H.; **Omur-Ozbek, P.**; McGee, J. **2012**. Determination of Two Siloxanes in Waste Activated Sludge and their Removal by Advanced Oxidation. Oral presentation at the 32<sup>nd</sup> Annual American Geophysical Union Hydrology Days, Fort Collins, CO (March).
27. **Omur-Ozbek, P. 2011**. Sensory and Analytical Methods to Detect Off-Flavors in Source and Drinking Water. Sunday Workshop oral presentation at the AWWA WQTC Conference in Phoenix, AZ (November).
28. **Omur-Ozbek, P. 2011**. Off-Tastes and Odors in Drinking Water. Oral presentation at the RMSAWWA/RMWEA Joint Conference in Loveland, CO (September).
29. **Omur-Ozbek, P. 2011**. Simultaneous Removal Geosmin and Microcystin-LR with Moringa Oleifera Seed Extracts and Powdered Activated Carbon. Poster presented at the ACS National meeting in Denver, CO (August).
30. **Omur-Ozbek, P. 2011**. A review of Occurrence and Mitigation of Algal Odorants and Toxins in Surface Waters. Oral presentation at the 31<sup>st</sup> Annual American Geophysical Union Hydrology Days, Fort Collins, CO (February).
31. Koester, K.; **Omur-Ozbek, P. 2011**. Removal of Odorous Algal Metabolite from Horsetooth Reservoir Water by Powdered Activated Carbon. Oral presentation at the 31<sup>st</sup> Annual American Geophysical Union Hydrology Days, Fort Collins, CO (February).
32. Dietrich, A.M.; **Omur-Ozbek, P. 2010**. Nutritional and Off-flavor Aspects of Metals in Drinking Water. Oral presentation at the 241<sup>th</sup> ACS National Meeting, Boston, MA (Aug).
33. Koester, K.; **Omur-Ozbek, P. 2010**. Removal of Algal Metabolites by Activated Carbon. Poster presentation at the Water Science Day, Boulder, CO (June).
34. **Omur-Ozbek, P.**; Dietrich, A.M. **2009**. Taste of Metals in Drinking Water. Oral presentation at the AWWA ACE, San Diego, CA (June).
35. **Omur-Ozbek, P.**; Dietrich, A.M.; Duncan, S.E.; Lee, Y.W. **2008**. Metallic Flavor of Iron and Copper in Drinking Water. Poster presented at the 8<sup>th</sup> IWA Specialty Symposium, Seoul, South Korea (October).
36. **Omur-Ozbek, P.**; Dietrich, A.M. **2008**. Developing an Odor Standard for Sensory Analysis of Drinking Water. Poster presented at the 24<sup>th</sup> GSA Annual Research Symposium, Virginia Tech, Blacksburg, VA (March).
37. **Omur-Ozbek, P.**; Dietrich, A.M.; Duncan, S.E.; Lee, Y.W. **2007**. Metallic Flavor is caused by Lipid Oxidation in Mouth. Poster presented at the MILES/MII Research Symposium, Virginia Tech, Blacksburg, VA (October)
38. **Omur-Ozbek, P.**; Dietrich, A.M.; Duncan, S.E.; Lee, Y.W. **2007**. Metallic Flavor is caused by Lipid Oxidation in Mouth. Poster presented at the Dean's Forum, Virginia Tech, Blacksburg, VA (November).
39. **Omur-Ozbek, P.**; Dietrich, A.M. **2007**. Role of Metals in Health and Flavor of Drinking Water. Oral presentation at the AEESP Conference, Blacksburg, VA (July).
40. **Omur-Ozbek, P.**; Dietrich, A.M.; Duncan, S.E.; Lee, Y.W. **2006**. Metallic Flavor as a Result of Lipid Oxidation in Mouth Catalyzed by Metals. Poster presented at the 22<sup>nd</sup> GSA Annual Research Symposium, Virginia Tech, Blacksburg, VA (March).
41. **Omur-Ozbek, P.**; Dietrich, A.M.; Duncan, S.E.; Lee, Y.W. **2005**. Metallic Flavor as a Result of Lipid Oxidation in Mouth Catalyzed by Metals. Poster presented at the MII Research Symposium, Virginia Tech, Blacksburg, VA (August).
42. **Omur-Ozbek, P.**; Dietrich, A.M. **2003**. Odorous and Annoying Algal Products in Drinking Water. Oral presentation at the VWWRS, Blacksburg, VA (October).

### Webcasts

1. Taste and Odor Challenges and Solutions. AWWA TEC Webcast. August **2014**.
2. An Update on Causes and Solutions for Taste-and-Odor Issues in Source and Drinking Waters. AWWA TEC Webcast. October **2012**.

## **Invited Presentations**

1. Motivating and Empowering Students  
ASCE ExCEED Community Exchange Seminar Series. March **2022**.
2. Adapting In-Class Activities (Demos) to an Online Environment.  
ASCE ExCEED Community Exchange Seminar Series. October **2020**.
3. Disasters Bring Disastrous Water Quality.  
ASCE Northern Colorado Branch General Meeting. May **2015**.
4. Disasters Bring Disastrous Water Quality.  
CWI Interdisciplinary Water Resources Seminar. February **2014**.
5. Smelly and Toxic! What Happened to the Beautiful Lake?  
NREL Seminar Series, Fort Collins CO. October **2013**.
6. Sensory and Analytical Methods for Drinking Water Analysis.  
BTWF Watershed Conference, Greeley, CO. February **2013**.
7. Flavor of Drinking Water.  
New Belgium Seminar, Fort Collins, CO. September **2012**.
8. Sensory and Analytical Methods for Drinking Water Analysis.  
Taste and Odor Workshop, Erie, CO. February **2012**.
9. Off-Flavors, Their Occurrence and Treatment.  
CU Boulder, CO. October **2011**.
10. Flavor of Drinking Water.  
Front Range Drinking Water Consortium, Westminster, CO. September **2011**.
11. Off-Flavors in Drinking Water.  
CSU CEE Department Internal Advisory Board Meeting, Fort Collins, CO. April **2011**.
12. Flavors of drinking water.  
Beet Street Culture Café Series – Science Café, Fort Collins, CO. June **2010**.
13. Testing Drinking Water with Humans: Flavor Profile Analysis.  
CHWMS Lunch Series, Denver, CO. May **2010**.
14. Analyzing Drinking Water with Humans: The Flavor Profile Analysis Method.  
CSU Innovations Breakfast, Denver, CO. March **2010**.

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## TEACHING EXPERIENCE AND INTERESTS

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### Classes Taught

<u>CIVE 438</u> Fundamentals of Environmental Engineering at CSU 3 Credits, Student evaluation: N/A (31 & 21 students were enrolled)	<b>Fall 2022</b>
<u>CIVE 438</u> Fundamentals of Environmental Engineering at CSU – ONLINE 3 Credits, Student evaluation: N/A (2 students were enrolled)	<b>Fall 2022</b>
<u>CIVE 439</u> Applications of Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (46 students were enrolled)	<b>Fall 2022</b>
<u>CIVE 480 A4</u> Global Water Challenges – Experimental at CSU 3 Credits, Student evaluation: N/A (18 students were enrolled)	<b>Fall 2022</b>
<u>CIVE 339</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (45 students were enrolled)	<b>Spring 2022</b>
<u>CIVE 441</u> Water Quality Analysis and Treatment at CSU 3 Credits, Student evaluation: N/A (35 students were enrolled)	<b>Spring 2022</b>
<u>CIVE 438</u> Fundamentals of Environmental Engineering at CSU – ONLINE 3 Credits, Student evaluation: N/A (3 students were enrolled)	<b>Spring 2022</b>
<u>CIVE 438</u> Fundamentals of Environmental Engineering at CSU 3 Credits, Student evaluation: N/A (44 & 29 students were enrolled)	<b>Fall 2021</b>
<u>CIVE 439</u> Applications of Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (35 students were enrolled)	<b>Fall 2021</b>
<u>CIVE 339</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (36 students were enrolled)	<b>Spring 2021</b>
<u>CIVE 438</u> Fundamentals of Environmental Engineering at CSU 3 Credits, Student evaluation: N/A (28 & 12 students were enrolled)	<b>Spring 2021</b>
<u>CIVE 438</u> Fundamentals of Environmental Engineering at CSU – ONLINE 3 Credits, Student evaluation: N/A (1 student was enrolled)	<b>Spring 2021</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (43 & 32 students were enrolled)	<b>Fall 2020</b>
<u>CIVE 439</u> Applications of Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (28 students were enrolled)	<b>Fall 2020</b>
<u>CIVE 339</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (22 students were enrolled)	<b>Spring 2020</b>
<u>CIVE 438</u> Fundamentals of Environmental Engineering at CSU 3 Credits, Student evaluation: N/A (36 & 16 students were enrolled)	<b>Spring 2020</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (40 & 37 students were enrolled)	<b>Fall 2019</b>
<u>CIVE 439</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (31 students were enrolled)	<b>Fall 2019</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: N/A (58 & 43 students were enrolled)	<b>Spring 2019</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 3.9 (59 students were enrolled)	<b>Fall 2018</b>
<u>CIVE 439</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 3.9 (30 students were enrolled)	<b>Fall 2018</b>

<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.0 (61 students were enrolled)	<b>Spring 2018</b>
<u>WR 418</u> Land Use and Water Quality at CSU 3 Credits, Student evaluation: 4.1 (41 students were enrolled)	<b>Spring 2018</b>
<u>WR 419</u> Water Quality Laboratory for Wildland Managers at CSU 3 Credits, Student evaluation: 4.0 (21 students were enrolled)	<b>Spring 2018</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.2 (44 students were enrolled)	<b>Fall 2017</b>
<u>CIVE 439</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.3 (27 students were enrolled)	<b>Fall 2017</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.4 (63 students are enrolled)	<b>Spring 2017</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.4 (63 students were enrolled)	<b>Fall 2016</b>
<u>CIVE 439</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 3.9 (25 students were enrolled)	<b>Fall 2016</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 3.7 (51 students were enrolled)	<b>Spring 2016</b>
<u>CIVE 330</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 3.9 (21 students were enrolled)	<b>Spring 2016</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.5 (62 students were enrolled)	<b>Fall 2015</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 3.5 (59 students were enrolled)	<b>Spring 2015</b>
<u>ENVE 441</u> Water Quality Analysis and Treatment at CSU 3 Credits Student evaluation: 3.1 (32 students were enrolled)	<b>Spring 2015</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.2 (44 students were enrolled)	<b>Spring 2014</b>
<u>ENVE 441</u> Water Quality Analysis and Treatment at CSU 3 Credits Student evaluation: 4.1 (16 students were enrolled)	<b>Spring 2014</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.2 (61 students were enrolled)	<b>Fall 2013</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.6 (33 students were enrolled)	<b>Spring 2013</b>
<u>ENVE 441</u> Water Quality Analysis and Treatment at CSU 3 Credits Student evaluation: 5 (10 students were enrolled)	<b>Spring 2013</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.4 (42 students were enrolled)	<b>Fall 2012</b>
<u>Graduate Seminar</u> Improving Teaching Skills - ExCEED 1 Contact hour, Unofficial seminar series (25 students)	<b>Fall 2011/Spring 2012</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.5 (79 students were enrolled)	<b>Spring 2012</b>
<u>ENVE 441</u> Water Quality Analysis and Treatment at CSU 3 Credits Student evaluation: 4.7 (18 students were enrolled)	<b>Spring 2012</b>

<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 4.3 (66 students were enrolled)	<b>Spring 2011</b>
<u>ENVE 441</u> Water Quality Analysis and Treatment at CSU 3 Credits Student evaluation: 4.3 (15 students were enrolled)	<b>Spring 2011</b>
<u>CIVE 438</u> Environmental Engineering Concepts at CSU 3 Credits, Student evaluation: 3.9 (42 responses out of 61 students enrolled) *This course was revised in 2010 to reduce the credit hours from 4 to 3.	<b>Spring 2010</b>
<u>ENVE 441</u> Water Quality Analysis and Treatment at CSU 3 Credits Student evaluation: 4.3 (18 responses out of 18 students enrolled) *This course was revised in 2010 to increase the credit hours from 1 to 3.	<b>Spring 2010</b>
<u>CIVE 438</u> Pollution Control Engineering at CSU 4 Credits, Student evaluation: 4.3 (36 responses out of 48 students enrolled)	<b>Spring 2009</b>
<u>ENVE 441</u> Water and Wastewater Characterization Laboratory at CSU 1 Credit, Student evaluation: 5 (6 responses out of 6 students enrolled)	<b>Spring 2009</b>
*Graduate level class sessions for CEE 5104 Environmental Chemistry at VT	<b>2008-2005</b>

### **Workshops Taught**

- Taste and Odor Workshop **April 2016**  
Workshop Instructor, Fort Collins, CO (AWWA Water Treatment Committee)
- Taste and Odor Workshop **May 2014**  
Workshop Instructor, Wellington, CO
- Taste and Odor Workshop **February 2012**  
Workshop Instructor, Erie, CO (AWWA Water Treatment Committee)
- “Diagnosing Taste and Odor Problems” **November 2011**  
Workshop organizer and presenter at AWWA WQTC, Phoenix, AZ
- Taste and Odor Workshop **Oct 2010, May 2011**  
Workshop Instructor, Fort Collins, CO (AWWA Water Treatment Committee)
- Taste and Odor Workshop **March 2011**  
Workshop Instructor, Morgan County, CO
- Flavor Profile Analysis **Nov 2009, April 2010**  
Workshop Instructor, Fort Collins, CO and Loveland, CO
- Beyond TON: New Methods for Improved Sensory Analyses of Drinking Water **July 2006**  
Workshop Instructor at AWWA/VWEA Good Laboratory Practices Symposium  
Charlottesville, VA
- Sensory Analysis of Water: Controlling Geosmin, 2-MIB and other Odorants **Oct 2005**  
Workshop Instructor at 7th IWA Specialty Symposium, Cornwall, Ontario, CA
- “Flavor Profile Analysis” **2004, 2005, and 2006**  
Workshop Instructor, Virginia Tech, Blacksburg, VA
- “Attribute Rating, Two-out-of-Five, and Distribution Rating Tests for Analyzing Water Quality” **Nov 2003**  
Workshop assistant at AWWA WQTC, Philadelphia, PA

## Teaching Interests

- Environmental Engineering Concepts
- Environmental Aquatic Chemistry
- Analytical and Sensory Analysis of Environmental Samples
- Water and Wastewater Treatment – Unit Operations and Design
- Ecological Engineering
- Pollution Prevention/Cleaner Production
- Engineering (and Environmental) Ethics
- Environmental and Social Justice
- Global Water Challenges
- Sustainable Development with Focus on Water, Health, Food, and Energy

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## SERVICE AND OUTREACH

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### Services

- Journal Reviewer
  - Environmental Science and Technology
  - Water Research
  - Water Supply
  - Journal of Chemical Engineering
  - Water
  - Toxins
  - Journal of Desalination and Water Quality
  - Journal of Environmental Technology
  - Environments
  - Water Science and Technology
  - Chemosphere
  - Journal of American Water Works Association
  - Journal of Environmental Earth Sciences
  - Journal of Environmental Toxicology
  - Journal of Clinical Oral Investigations
  - Journal of Environmental Management
  - Desalination and Water Treatment
  - Communications: Water & Earth
- ASCE Committee on Faculty Development, current chair **Fall 2020-present**
- Undergraduate Instruction Committee, chair **Fall 2019 – present**
- Accreditation committee **Fall 2020 – present**
- NTTF Promotion Committee **Spring and Fall 2020**
- PRW Internship Program, STEM Academy at Fossil Ridge Highschool Mentor to Ms. Sophie Elliot in **2016** and Ms. Breanna Jane in **2017** and Mr. Blake Knipple in **2018** and Ms. Gabrielle Dunn in **2019**
- WSCOE College Code Review and Update Committee **AY 19-20**
- SOGES Curriculum Committee **Fall 19-present**
- WSCOE Silver Medal Award Committee Member (CSU) **December 2009 - present**



- NTTF Committee **Fall 19-present**
- Faculty Council Member **Fall 19-present**
- Project Advisory Committee Member for WRF **2009 – 2012, 2018 - present**
- NTTF Search Committee **2018 and 2019**
- Undergraduate Instruction Committee **Fall 2018 - present**  
Ecosystem Science and Sustainability search committee member **Fall 2016- Spring 2017**
- WSCOE GTF Program Coordinator. **AY 18-19, 19-20, 20-21, 21-22, 22-23**  
Supervised 21 Ph.D. students that were a part of the program.
- ASCE ExCEED Mentor **2011, 2012, 2013, 2016, 2017, 2018, 6&8/2019, 2021**
- Ethics PLI Session Presenter for WSCOE **2013 - present**  
ECE KIs, ECE, CBE and CEE Senior Design
- Faculty advisor to Chi Epsilon Student Chapter **Fall 2013 – present**
- Faculty advisor to Environmental Engineering Society **Fall 2013 - present**
- Faculty organizer and presenter at “Improving Teaching Skills Seminar Series” **AY 18-19**
- AWWA Taste and Odor Committee Chair **June 2011- June 2014**
- Senior Design advisor **Fall 2013 and Spring 2014**
- Senior Design advisor for two groups **Fall 2012 and Spring 2013**
- Departmental search committee member **Fall 2012**
- AWWA WQTC Special Topics Session Moderator **November 2012**
- College Scholarship Committee **Spring 2012-Fall 2014**
- Graduate Instruction Committee **Fall 2011 – Spring 2016**
- AWWA WQTC Workshop Organizer, Moderator **November 2011**
- Judge at the Drinking Water Taste Test **September 2011, 2015, 2018, 2019**  
Acted as a judge to taste and rate the water samples sent by the drinking water utilities in Mountain Region at AWWA Annual Conference (featured in news article: [http://www.aurorasentinel.com/email\\_push/news/article\\_0d5b15c6-e54e-11e0-a780-001cc4c002e0.html](http://www.aurorasentinel.com/email_push/news/article_0d5b15c6-e54e-11e0-a780-001cc4c002e0.html))
- Presented at the External Advisory Committee Meeting **April 2011**
- Internal Advisory Committee Member (CSU) **November 2010 – August 2011**
- Judge at the Best of Best Taste Test **June 2010**  
Acted as a judge to taste and rate the water samples sent by the drinking water utilities around US at American Water Works Association’s Annual Conference (featured in news article: <http://www.jsonline.com/business/96925609.html>)
- Advisor (CSU) **September 2009**  
Coordinated a half-day seminar and laboratory session for recruiting students to EWB.
- Mentor (VT) **Summer 2008**  
Mentored two undergraduate students during the NSF SURP (summer undergraduate research program) with designing and conducting experiments and preparing a literature review and a manuscript. Co-authored the proceedings paper.
- Mentor (VT) **Summer 2007**  
Mentored an undergraduate student during the summer NSF REU (research experiences for undergraduates) program with designing and conducting experiments and preparing a literature review and a manuscript. Co-authored the proceedings paper.

## **Outreach**

- Panelist at IAGE (Introduce a Girl to Engineering) **April 2021**
- Panelist at PROGRESS WSCOE Women in Engineering Workshop **February 2020**  
Presented and answered questions on “What Mentoring Means to Me”  
Signed up to mentor Ms. Sophie Fenn and Ms. Kennedy Hirst
- Presenter-Engineering Exploration Days **Fall 2011 – Spring 2015, Sp&Fa 2019, 2020**
- Instructor (CSU-WISDOM) **November 2010**  
Gave a short lecture to middle school students on water quality followed by experiments to analyze several water samples.
- Lab Instructor **January 2010**  
Gave a short lecture to middle school students on metals in drinking water followed by experiments to analyze several water samples to test for iron and copper.
- Science Camp Instructor (CSU-ELC) **November 2009, 2010**  
Conducted water quality experiments during a half-day father-daughter day science camp to attract interest of female middle school students to environmental engineering and science field.
- Science Summer Camp Instructor **July 2006 and 2007**  
Conducted experiments and instructional sessions for the middle school students during week long Let’s Think Radically Chemistry Camp in conjunction with NSF-IGERT training.
- Open House Instructor **June 2005**  
Conducted experiments and instructional sessions for the grade and high school students to attract them to pursue their education in science and engineering.

## **Consulting**

- Corona Environmental Consulting, LLC **December 2021 – April 2022**
- City of Superior **January 2021**
- City of Loveland Water Treatment Plant **Summer 2018, 2019**
- City of Wellington Water Treatment Plant **September 2017**
- City of Greeley Water Treatment Plant **June 2016**
- HDR, Inc. **June 2015**
- Corona Environmental Consulting, LLC **May 2015**
- City of Wellington Water Treatment Plant **April 2014**
- Farnsworth Consulting Company **November 2012**
- Consolidated Mutual Water Company **March 2011**
- Northern Colorado Drinking Water Utilities **since 2010**
- Clear Water Solutions, Inc. **November 2010**
- Morgan County Quality Water District **November 2010**

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## **PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS**

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- American Water Works Association
- American Society of Civil Engineers
- American Chemical Society
- Association of Environmental Engineering and Science Professors
- American Association for the Advancement of Science
- American Society of Engineering Educators
- Society of Women Engineers
- Chi Epsilon Honor Society

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## **GRADUATE AND UNDERGRADUATE STUDENT ADVISING**

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### **Graduate Students**

- Ms. Duygu Kalan, Ph.D., anticipated graduation date Summer 2021
- Mr. Scott Dickmeyer, M.S. Plan B, graduated Fall 2019
- Ms. Caryn Nezat, M.S. Plan A, graduated Fall 2019
- Ms. Natalya Fedchuk, M.S. Plan A, graduated Fall 2017
- Mr. Seongyun Kim, Ph.D., graduated Fall 2017
- Mr. Muthukumaran Sampath, M.S. Plan A, graduated Spring 2017
- Mr. Patrick Brice, M.S. Plan B, graduated Fall 2016
- Mr. Brent Morgensen, M.S. Plan A, graduated Fall 2016
- Mr. Omar Alrehaili, M.S. Plan B, graduated Spring 2016
- Mr. Mohammed Alhussaini, M.S. Plan B, graduated Summer 2015
- Mr. Yazeed Algurainy, M.S. Plan B, graduated Summer 2015
- Mr. Darren Wood, M.S. Plan C, graduated Spring 2015
- Mr. Yu Zhang, M.S. Plan A, graduated Summer 2014
- Mr. Glenn Parr, M.S. Plan A, graduated Summer 2014
- Mr. Keerthivasan Venkatapathi, M.S. Plan A, graduated Summer 2013
- Ms. Clare Steninger, M.S. Plan A, graduated Spring 2013
- Mr. Victor Sam, M.S. Plan A, graduated Fall 2012
- Mr. Harshad Kulkarni, M.S. Plan A, graduated Fall 2012
- Mr. Kirk Koester, M.S. Plan A, graduated Fall 2011

### **Graduate Committees**

- Ms. Lisa Weber, Ph.D. (outside member)
- Mr. Anmar Al Rikabi, Ph.D. (outside member)
- Ms. Nicole Ahrens, Ph. D. (outside member)
- Mr. Armin Saadatian Farivar, M.S. Plan A, (outside member)
- Mr. Tariq Alshaia, Ph.D. (student inactive)
- Ms. Korissa Straub, M.S. Plan A (outside member)
- Mr. Kivanc Sabunis, M.S. Plan A, (outside member), defended Fall 2019
- Mr. John Boyle, M.S. Plan A, (outside member), graduated Fall 2019
- Ms. Ashley Sorcic, M.S. Plan A, (outside member), graduated Spring 2019
- Mr. Daniel Workman, M.S. Plan A, (outside member), graduated Fall 2018
- Ms. Huishu Li, Ph.D., graduated Fall 2018
- Ms. Meryem Bingul, Ph.D. (outside member), graduated Summer 2017
- Ms. Sunah Kim, M.S. Plan A, graduated Summer 2017
- Mr. John Butler, M.S. Plan B, graduated Spring 2017
- Ms. Neha Athavale, M.S. Plan B, graduated Spring 2017
- Mr. Oguzhan Kendigelen, M.S. Plan A (outside member), graduated Fall 2016
- Mr. Bing Bai, Ph.D., graduated Fall 2016
- Ms. Nasim Esmaeilirad, Ph.D., graduated Spring 2016
- Mr. Gen Li, M.S. Plan A, graduated Summer 2015

- Mr. Wanze Li, M.S. Plan A, graduated Summer 2015
- Mr. John Ryan Hutcherson, M.S. Plan A, graduated Spring 2015
- Mr. Bradley Sick, M.S. Plan A, graduated Summer 2014
- Mr. Kirk Lake, M.S. Plan A, (outside member), graduated Spring 2014
- Ms. Xi Jiang, M.S. Plan A, graduated Fall 2013
- Mr. Brett Ledeker, M.S. Plan A, graduated Summer 2012

### **Undergraduate Students (Research)**

- Ms. Noelle Fillo, undergraduate summer student hourly, Summer 2018/2019
- Ms. Connor Haines, undergraduate summer student hourly, Summer 2018/2019
- Ms. Sterling Marvin, undergraduate summer student hourly, Summer 2018/2019
- Ms. Caryn Nezat, undergraduate summer student hourly, Summer 2016
- Mr. Easton Archibald, undergraduate summer student hourly, Summer 2016
- Ms. Allyssa Brewer, undergraduate summer student hourly, Summer 2015
- Ms. Loranda Herstein, undergraduate summer student hourly, Summer 2014
- Ms. Natalya Fedchuck, undergraduate honors project advisor, Spring 2014
- Ms. Adele Nez, undergraduate honors project advisor, Fall 2012/Spring 2013
- Ms. Rebecca Fink, undergraduate honors project advisor, Fall 2011/Spring 2012
- Mr. Patrick Brice, undergraduate summer student hourly, Summer 2011-2012
- Ms. Rachel Gallagher, undergraduate work study, Spring 2010
- Ms. Meg Hollowed, undergraduate honors project advisor, Spring 2009

### **Undergraduate Advised Students**

- Ms. Madeline Bartell, academic adviser, Spring 2020
- Ms. Theresa Centola, academic adviser, Fall 2019
- Mr. Isaiah Chavez, academic adviser, Fall 2019
- Mr. Zakri Siegel, academic adviser, Spring 2019
- Ms. Jana Mckinny, academic adviser, Spring 2019
- Ms. Kylie Rasmussen, academic adviser, Fall 2018
- Ms. Sheridyn Randolph, academic adviser, Fall 2018
- Mr. Sam Pierce, academic adviser, Spring 2018
- Mr. Stone Olson, academic adviser, Fall 2018
- Mr. David Vigil, academic adviser, Spring 2018
- Ms. Suzanne McKinley, academic adviser, Spring 2018
- Ms. Jackie LaBelle, academic adviser, Spring 2018
- Ms. Kaori Keyser, academic adviser, Spring 2018
- Mr. Joe Keaveny, academic adviser, Spring 2018
- Mr. Leo Karcz, academic adviser, Spring 2018
- Ms. Lia Clark, academic adviser, Spring 2018
- Mr. Evan Bednar, academic adviser, Fall 2017
- Ms. Hannah Crail, academic adviser, Spring 17
- Mr. Ryan Davis, academic adviser, Spring 17
- Mr. Sam Quinn, academic adviser, Fall 16
- Ms. Cheyenne Maio-Silva, academic adviser, Fall 16

- Ms. Xury Deputy, academic adviser, Fall 16
- Mr. Tyler Cloud, academic adviser, Fall 16
- Mr. Daniel Campbell, academic adviser, Fall 16
- Ms. Camille Wright, academic adviser, Fall 15
- Ms. Emilie Abbott, academic adviser, Fall 15
- Ms. Alexa Kissinger, academic adviser, Fall 15
- Mr. Dawood Alameer, academic adviser, Fall 14
- Ms. Alyssa Brewer, academic adviser, Fall 14
- Mr. Evan Croft, academic adviser, Fall 14
- Mr. Vance Holzmann, academic adviser, Fall 14
- Mr. Christopher Jarrett, academic adviser, Fall 14
- Mr. Dalton Oliver, academic adviser, Fall 14
- Ms. April Tamburelli, academic adviser, Spring 13
- Mr. Sandor Rebek, academic adviser, Spring 2013
- Ms. Lauren Lauritzen, academic adviser, Spring 2013
- Mr. Max Gilliam, academic adviser, Spring 2013
- Ms. Sarah Dixon, academic adviser, Fall 2012
- Ms. Kayla Whitehead, academic adviser, Spring 2012
- Ms. Corrie Houser, academic adviser, Spring 2012

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## **PROFESSIONAL DEVELOPMENT**

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- TILT Short Course – Learning Outcomes and Course Alignment, **Summer 2022**
- TILT Short Course – Rubrics to Support Student Success, **Summer 2022**
- TILT Short Course – Active Learning, **Fall 2021**
- TILT Short Course – Critical Thinking, **Fall 2021**
- TILT Short Course – Inclusive Pedagogy, **Fall 2021**
- TILT Short Course – Planning an Effective Class Session, **Fall 2021**
- Faculty Institute for Inclusive Excellence at CSU by VP for Diversity, **Spring 2021**
- TILT Short Course – Teaching Online, **Summer 2020**
- TILT Short Course – First Four Weeks, **Summer 2020**
- TILT Short Course – Creating Assignments, **Summer 2020**
- TILT Short Course – Student Motivation, **Summer 2020**
- CSU Online Short Course – Designing CSU Online Course, **Summer 2020**
- ASCE ExCEED Community Exchange Seminars – **Summer and Fall 2020, Fall 2021**
- Creating Inclusive Excellence Program at CSU by VP for Diversity, **Fall 2019**
- Mobile Summer Institute on Teaching Workshop on Scientific Teaching, **2019**
- Master Teacher Initiative, **2018, 2019, 2020, 2022**
- ASEE NETI Workshop, **2017**
- ASCE ExCEED Teaching Workshop II, **2012**
- TILT Workshop on Problem Based Learning, **2012**
- TILT Workshop on Active Learning, **2011**
- NSF CAREER Proposal Writing Workshop, **2010**
- ASCE ExCEED Teaching Workshop, **2010**