

# Kristen E Brown, PhD

## Assistant Professor

Division of Civil and Environmental Engineering  
School of Civil and Environmental Engineering and Construction Management  
Klesse College of Engineering and Integrated Design  
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## Educational Background

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Institution	Date	Degree	Field of Study
University of Colorado at Boulder	2016	PhD	Environmental Engineering
University of Colorado at Boulder	2013	MS	Mechanical Engineering
University of California at Berkeley	2010	BA	Physics

**Dissertation:** The Benefits of Internalizing Air Quality and Greenhouse Gas Externalities in the US Energy System

## Employment History

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Institution	Dates	Position
University of Texas at San Antonio	2020-Present	Assistant Professor
FTI Consulting	2023-2023	Independent Consultant
US Environmental Protection Agency	2016-2020	Environmental Engineer
University of Colorado at Boulder	2010-2016	Graduate Research Assistant
Space Sciences Laboratory	2008-2010	Research Assistant
Lawrence Berkeley National Laboratory	2005-2005	Research Intern

## Awards and Honors

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Award	Institution	Date
Finalist for Women in Science Incentive Prize	The Story Exchange	2022
Honorable Mention for Scientific and Technological Achievement Award (STAA)	US EPA	2019
Participant (Competitive) at Advancing Careers in Academics with Diversity Education and Mentorship in Engineering (ACADEME)	NSF	2019
Superior Performance Award	US EPA	2019

Award Continued		Institution	Date
Participant (Competitive) at National Science Communication Conference		ComSciCon	2015
Best Air Quality Talk at the Graduate Engineering Research Symposium		CU Boulder	2013
First Place Energy Policy Poster		Energy Frontiers Conference	2011
Recognition for Students			
Award	Student	Institution	Date
Eisenhower Fellowship (\$10,000 award)	Christina Kastely	FHWA	2023
Undergraduate research \$1,000	Stanley Ngo	KCEID (UTSA)	2022
Travel Award	Alyssa Arcos	SACNAS	2022

## Research Activities

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### Publications

Students for which KEB is primary supervisor in ***bold+italics***, \* denotes corresponding author

#### *Peer Reviewed Journal Articles*

Date	Authors	Journal	Title	Impact†	pp.	DOI
2020	<b><i>Brown, K.*, Henze, D. K., &amp; Milford, J. B</i></b>	Air Quality, Atmosphere & Health	Comparing health benefit calculations for alternative energy futures	CB: 3 JIF: 5.8 AM: 9	773-787	10.1007 / s11869-020-00840-8
2019	<b><i>Brown, K.*, Dodder, R.</i></b>	Transportation Research Part D: Transport and Environment	Energy and emissions implications of automated vehicles in the US energy system	CB: 39 JIF: 7.0 AM: 10	132-147	10.1016 / j.trd.2019.09.003
2019	<b><i>Brown, K.*, Loughlin, D.H.</i></b>	Clean Technologies and Environmental Policy	Market sensitivity of solar–fossil hybrid electricity generation to price, efficiency, policy, and fuel projections	CB: 1 JIF: 4.7 AM: 1	591-604	10.1007 / s10098-018-1659-3
2018	<b><i>Brown, K.*, Hottle, T.A., Bandyopadhyay, R., Babae, S., Dodder, R.S., Kaplan, P.O., Lenox, C.S., Loughlin, D.H.</i></b>	Environmental Science & Technology	Evolution of the United States Energy System and Related Emissions under Varying Social and Technological Development Paradigms: Plausible Scenarios for Use in Robust Decision Making	CB: 16 JIF: 11.4 AM: 13	8027 - 8038	10.1021 / acs.est.8b00575

Date	Authors	Journal	Title	Impact <sup>†</sup>	pp.	DOI
2017	<b>Brown, K.*</b> , Henze, D.K., Milford, J.B.	Energy Policy	How accounting for climate and health impacts of emissions could change the US energy system	CB: 41 JIF: 7.6 AM: 1	396-405	10.1016 / j.enpol.2016.12.052
2013	<b>Brown, K.*</b> , Henze, D.K., Milford, J.B.	Environmental Science & Technology	Accounting for Climate and Air Quality Damages in Future U.S. Electricity Generation Scenarios	CB: 47 JIF: 11.4 AM: 2	396-405	10.1021 / es304281g

<sup>†</sup>Cited by (according to Google Scholar) (CB); Journal Impact Factor (JIF); Altmetric (AM)

### *Reports – Not Peer-Reviewed*

**Brown, K.E.**, Lopez Ochoa, E., Lee, R.J., Zhai, W.; An Assessment of Urban Heat Vulnerability in San Antonio, TX. 2023. SanAntonio.gov

### *Peer Reviewed K-12 Curriculum*

**Brown, K.**, Hippel, B., Perez-Suarez, S.D., Straten, M., Zarske, M.S., Yowell, J., Samson, C., 2012. Oil on the Ocean, TeachEngineering.org.

**Brown, K.**, Forbes, M., 2012. Hi Ho, Hi Ho, it's to the Mine We Go, TeachEngineering.org.

**Brown, K.**, 2012. What Kind of Footprint? Carbon Footprint, TeachEngineering.org.

### *Conference Proceedings - Not Peer-Reviewed*

**Brown, K.**, 2015. Internalizing Air Quality and Greenhouse Gas Externalities in the US Energy System, CU STEMinar Journal, Volume 1, Edition 1.

**Brown, K.**, Henze, D., Milford, J., 2014. The Effect of Criteria Pollutant and Greenhouse Gas Damage Based Fees on Emissions from the US Energy System, Community Modeling and Analysis System (CMAS) conference proceedings

**Brown, K.**, Henze, D., Milford, J., 2014. Internalizing Life Cycle Externalities in the US Energy System, Proceedings of LCA XIV.

### *Submitted Manuscripts*

**Brown, K.E.\***, Advancing Equity in Energy through a Simplified Framework. Progress in Energy, Invited Perspective piece for a focus issue in Energy Justice in the Energy Transition. **Revision and resubmission in progress.**

Lopez Ochoa, E., **Brown, K.E.\***, Lee, R.J., Zhai, W., Quantifying the spatial aggregation bias of urban heat data. Urban Climate. **Submitted November 16, 2023. Under Review.**

**Brown, K.E.\***, Lopez Ochoa, E., Lee, R.J., Zhai, W., “Developing a Multifaceted Characterization of Intra-urban Heat Vulnerability using a Case Study of San Antonio, TX” **Submitted to Journal of Environmental Management January 19, 2024.**

### *Manuscripts in Preparation*

**Ngo, S.**, Murphy, B.N., Nolte, C.G., & **Brown, K.E.\***, Bridging Existing Energy and Chemical Transport Models to Enhance Air Quality Policy Assessment (**Complete manuscript, awaiting co-author approval. Submission will be to Environmental Modelling and Software, expected submission by February 2024**)

**Brown, K.E.**, Garcia Menendez, F., Nwadiaru, O.V., Application of a Simplified Framework for Energy Justice in the Global South. (**Target submission spring 2024**)

Zuniga Herrera\*, A., **Brown, K.E.**, Santiago, I., The Effect of Electric Vehicles on the Power System (Analysis has been completed; draft is being completed by graduate student AZH at UTEP)

## Scholarly Presentations

### *Invited Oral Presentations - Not Peer-Reviewed*

Date	Venue*	Location	Title
Jan 2024	American Petroleum Institute (API) Mechanical Integrity Summit	San Antonio, TX	Panel: Impacts on Operators Due to Methane Emissions are Real and Rapidly Escalating
Oct 2023	Energy Justice in the Energy Transition Pre-Publication Workshop	Dallas, TX	Advancing Equity in Energy through a Simplified Framework
Oct 2023	SmartSA	San Antonio, TX	Researching the Urban Environment in a Smart City
Sept 2023	Urban Sustainability Directors Network	Online	Urban Heat Priority Assessment
Oct 2022	USAEE	Houston, TX	How Emissions Reductions from the Energy System Affect Future Air Quality
Mar 2021	Geological Sciences & CEE Seminar Series, UTSA	San Antonio, TX (via Zoom)	Evolution of the United States Energy System and Related Emissions under Varying Social and Technological Development Paradigms
Mar 2021	Civil, Construction, and Environmental Engineering Seminar, UNM	Albuquerque, NM (via Zoom)	Evolution of the US energy system under varying paradigms
Sept 2020	Environmental Science Seminar, UTSA	San Antonio, TX (via Zoom)	Evolution of the US energy system under varying paradigms
Feb 2020	CEE Seminar, UTSA	San Antonio, TX	Emissions Projections of Possible Energy System Futures
Feb 2020	Gillings School of Public Health, UNC	Chapel Hill, NC	Health Effects Associated with Vehicle Automation

Jan 2020	CEE Seminar, OSU	Stillwater, OK	Energy and Emissions Implications of Vehicle Automation
Dec 2019	Science Technology and Public Policy seminar at RIT	Rochester, NY	How technological development affects the implementation of Renewable Portfolio Standards
Jan 2019	Center for Energy Studies at LSU	Baton Rouge, LA	Accounting for Health Impacts of Energy Related Emissions
May 2018	Information Exchange with DOT, DOE, EPA	Webinar	Information Exchange on Connected, Autonomous, Shared, Electric Vehicles
April 2018	General Education Seminar for Cal Alumni Club of North Carolina	Durham, NC	How Air Quality Affects your Health
April 2018	EPA Office of Transportation and Air Quality	Research Triangle Park, NC	Potential regional impacts of automated vehicles.
Feb 2018	EPA Office of Transportation and Air Quality	Webinar	Potential emission impacts of automated vehicles
April 2017	EPA Office of Air Quality Planning and Standards	Research Triangle Park, NC	Impact of various energy pathways on future emissions
Sept 2016	Environmental Water Resources, and Coastal Engineering, seminar, NC State	Raleigh, NC	Internalizing Externalities of the US Energy System
June 2015	Harvard TH Chan School of Public Health	Boston, MA	Calculating the health effects of a policy to internalize health-based damages in the US Energy System
Oct 2014	LCA XIV Conference	San Francisco, CA	Internalizing Life Cycle Externalities in the US Energy System

*Oral Presentations - Not Peer-Reviewed*

Date	Venue*	Location	Presenter	Title
Oct 2023	Association of Collegiate	Miami, FL	RJ Lee	Planning for walkable communities through the lens of equity: The relationship between walkable

Date	Venue*	Location	Presenter	Title	Oral, Continued
	Schools of Planning			environment and heat exposure in San Antonio, Texas	
Apr 2023	Urban Affairs Association Conference	Nashville, TN	W. Zhai	Walkable but not walkable? A geospatial relationship between urban environment and heat exposure through the lens of equity in San Antonio, Texas	
Mar 2023	Council of Educators in Landscape Architecture	San Antonio, TX	RJ Lee	A spatial analysis of the heat island effect and green infrastructure: a case study of San Antonio, Texas	
Jan 2020	TRB	Washington, DC	K. Brown	Monetized Health Benefits of Regional Emissions Changes Due to Scenarios of Vehicle Automation	
Oct 2019	USAEE	Denver, CO	K. Brown	How External Factors Influence Policy Goals using the Example of Renewable Energy Standards	
Oct 2019	CMAS	Chapel Hill, NC	K. Brown	Comparing Projected and Modeled Health Benefits of Alternative Energy Futures	
June 2019	Energy and Society in Transition	Tempe, AZ	K. Brown	Plausible Energy Scenarios for use in robust decision making	
Jan 2019	TRB	Washington, DC	K. Brown	Energy and Emissions Implications of Automated Vehicles in the US Energy System	
				(Research was selected for presentation, but due to a partial government shutdown was not presented.)	
Oct 2017	CMAS	Chapel Hill, NC	K. Brown	Plausible Energy Scenarios for use in robust decision making	
Oct 2015	USAEE	Houston, TX	K. Brown	Sensitivity of Solar Fossil Hybrid Electricity Technology Penetration to Price and Efficiency Projections	
Oct 2015	CMAS	Chapel Hill, NC	K. Brown	Air Quality Impacts of Damage Based Emissions Fees	
Oct 2014	CMAS	Chapel Hill, NC	K. Brown	The Effect of Criteria Pollutant and Greenhouse Gas Damage Based Fees on Emissions from the US Energy System	

Date	Venue*	Location	Presenter	Title	Oral, Continued
June 2014	GEIA Conference	Boulder, CO	K. Brown	The Effect of Damage Based Emissions Fees on Future US Emissions	
May 2012	World Renewable Energy Forum	Denver, CO	K. Brown	Incorporating Climate and Air Quality Externalities in the US Electricity System	
Mar 2011	American Chemical Society	Denver, CO	K. Brown	The Effect of Incorporating Air Quality and Climate Externalities in Future US Electricity Scenarios	
Nov 2006	American Physical Society	Dallas, TX	K. Brown	Characterizing Deuteron Breakup on Thin Targets at 20 MeV	

*Poster Presentations - Not Peer-Reviewed*

Date	Venue*	Location	Presenter	Title
Jan 2024	TRB	Washington, DC	F. Ellis	Best Management Practices Maintenance Requirements to Ensure Protection of Edwards Aquifer Water Quality
Sept 2023	ASPIRE research center	Boulder, CO	A. Zuniga Herrera	Technologies Needed for CO <sub>2</sub> Reductions based on Least Cost Optimization using TIMES modeling
Jun 2023	AEESP	Boston, MA	F. Ellis	Maintenance of Structural BMPs and Water Quality
Jan 2023	TRB	Washington, DC	C. Kastely	Implementing a sensor network to capture current and changing concentrations of PM <sub>2.5</sub> as the Bexar County transportation system evolves
Oct 2022	SACNAS NDiSTEM	San Juan, PR	A. Arcos	Quantifying Inequitable Exposure to Air Pollution in Bexar County, TX
Oct 2022	ASPIRE research center	Logan, UT	A. Zuniga Herrera	Emissions Outlook of Different Degrees of Adoption of Light Duty Electric Vehicles Using Energy Information Administration's Priorities
Aug 2022	CIMA LSAMP	San Antonio, TX	A. Arcos	Quantifying Inequitable Exposure to Air Pollution in Bexar County, TX
Dec 2019	AGU	San Francisco, CA	K. Brown	Increasing the Use of Near-zero Emission Energy Technologies Depends on Social, Technological, and Policy Factors

Date	Venue*	Location	Presenter	Title	Poster, continued
May 2019	Climate Change and Resilience Symposium	Chapel Hill, NC	K. Brown	Energy and Emissions Implications of Automated Vehicles	
April 2013	Energy Frontiers Conference	Boulder, CO	K. Brown	The Effect of Damage Based Fees on Future US Electricity Generation	
April 2011	Energy Frontiers Conference	Boulder, CO	K. Brown	The Effect of Accounting for Costs of Air Quality and Climate Impacts on the Future US Electricity Mix. Awarded 1st Place Energy Policy poster	
Dec 2008	AGU	San Francisco, CA	K. Brown	Dispersive Ion Injection Signatures Observed at FAST Altitudes during Times of Northward IMF: Characteristics and Origins	

\*Abbreviations for conferences

- AEESP: American Academy of Environmental Engineers and Scientists
- AGU: American Geophysical Union
- CMAS: Community Modeling and Analysis System
- SACNAS NDiSTEM: Society for Advancement of Chicanos/Hispanics & Native Americans in Science National Diversity in STEM conference
- TRB: Transportation Research Board
- USAEE: United States Association of Energy Economics

### Granting Activities

Agency	Submit date	Title	Project dates	Role Effort	*	Request Amount	Award
Funded							
City of San Antonio	09/26/2023	Enabling Informed Site Selection for Heat Mitigation	12/21/2023 to 12/31/2024	PI 20%	R	\$50k	\$50k
CPS Energy	06/30/2023	Optimize EV Charging Infrastructure for Grid Management	09/01/2023 to 08/31/2025	PI 50%	R	\$500k	\$500k
FTI Consulting	03/24/2023	Texas 2036	04/01/2023 to 08/31/2023	PI 100%	R	\$5k	\$10k
City of San Antonio	12/7/2022	How Can We Direct City Resources Toward the Areas Most Impacted by Extreme Heat?	03/01/2023 To 12/31/2023	PI 25%	R	\$25k	\$35k



Agency	Submit date	Title	Project dates	Role Effort	*	Request Amount	Award
UTSA VPR University of Texas San Antonio	3/24/2021	Changing Environment in the Glacial Watershed of the Cordillera Blanca, Peru under the Warming Climate: Understanding the shifting local dynamics of water availability, agriculture, and energy product	10/01/2021 To 07/31/2022	Co-I 33%	R	\$20k	\$20k
SARA San Antonio River Authority	11/23/2020	Best Management Practice (BMP) Maintenance Requirements to Ensure Protection of Edwards Aquifer Water Quality	5/1/2021 To 4/30/2024	Co-I 10%	R	\$619k	\$619k
Pending							
MSRDC MSI STEM Research & Development Consortium	11/28/2023	Hispanic Alliance for Clean Energy Education and Research (HACEER)	02/01/2024 to 01/31/2027	Co-I 5%	T	\$650k	
NSF National Science Foundation	11/17/2023	DISES: The Local Dynamics of Climate Change, Food Production, and Water Management in a Tropical Glacier System: a 6,000-year perspective on Andean human-environment relationships	08/01/2024 to 07/31/2028	Co-I 27%	R	\$1.8M	
US EPA Environmental Protection Agency	08/30/2023	Cumulative Environmental Health Impact as a Function of Community Resilience and Presence of Threats	07/01/2024 to 06/30/2027	PI 40%	R	\$2M	
Unfunded							
US Dept of Housing & Urban Development	06/01/2023	Housing Research Center for Advancement of Sustainability & Affordability	07/03/2023 to 07/03/2026	Co-I 10%	R	\$2.5M	
National Academies of Sciences Engineering and Medicine	05/03/2023	Environmental Protection in the Gulf	09/01/2023 to 08/31/2025	PI 100%	R	\$76k	

Agency	Submit date	Title	Project dates	Role Effort	*	Request Amount	Award
UTSA VPR University of Texas San Antonio	04/19/2023	Heat exposure during non-motorized travel: Implications for transportation policy of San Antonio	09/01/2023 to 08/31/2024	Co-I 25%	R	\$25k	
UTSA VPR University of Texas San Antonio	03/22/2023	Unifying climatological measurements across spatial and temporal scales and heights	09/01/2023 to 08/31/2024	PI 40%	R	\$50k	
US Dept of Agriculture	12/14/2022	Cultivating Future Workforce for Agriculture 4.0 through Informing, Engaging, and Incentivizing STEM Students	08/01/2023 To 07/31/2027	Co-I 20%	I	\$4.9M	
NASA (via SwRI)	11/22/2022	Urban heat island modeling and socioeconomic outcome modeling: The case of San Antonio, TX	03/01/2023 To 03/03/2025	Co-I 15%	R	\$645k	
US DOT Department of Transportation	8/25/2022	C-CLEAN IT – Center for CLimate and Environmental Abatement kNowledge for Infrastructure and Transportation	11/15/2022 To 11/14/2023	Co-I 20%	R	\$3M	
NSF National Science Foundation	7/26/2022	CAREER: Planning for a Sustainable, Healthy, Energy Rich Future	9/1/2022 To 8/31/2027	PI 100%	R	\$780k	
US DOE Department of Energy	6/16/2022	Urban Integrated Field Laboratory for Climate Research and Environmental Justice in the South Central US	09/01/2022 To 08/31/2027	Co-I 12.5 %	R	\$12.4 M	
NSF National Science Foundation	5/5/2022	Civic-PG Track A: Equitable measures to improve heat wave resilience in San Antonio TX	10/10/2022 To 3/31/2023	Co-I 14%	R	\$50k	
CPS Energy	11/22/2021	Interaction Between Vehicle Electrification, Emissions, and Capacity Expansion	1/1/2022 To 1/31/2023	PI 100%	R	\$288k	

Agency	Submit date	Title	Project dates	Role Effort	*	Request Amount	Award
TX DOT Texas Dept of Transportation	3/10/2021	Quantify the Real Impact of Transportation Activity on Regional Ozone and Near-Road PM Concentrations	09/01/2021 To 08/31/2023	PI 70%	R	\$384k	
NSF (via SMU) National Science Foundation	1/7/2021	SRS RN: Next-Generation Regional Transportation Systems: Sustainability-Driven Framework for Infrastructure Engineering and Social Welfare Optimization	06/01/2021 To 05/31/2022	PI 100%	R	\$4k	

\*R = Research, I = Instructional, S = Public service

## Teaching Activities

### Courses Taught

Course Number	Semester(s) Taught		Course Title	Instructor Rating	Enrollment
CE 1301	Spring 2024		Intro to Civil Engineering	IP	57 undergraduates
	Fall 2023	▪		4.43/5	93 undergraduates
CE 2633	Spring 2024		Environmental Engineering	IP	56 undergraduates
	Spring 2023			4.20/5	56 undergraduates
	Spring 2022	▪ ■		4.11/5	49 undergraduates
CE 4633	Spring 2023	x	Water & Wastewater Treatment	3.35/5	44 undergraduates
CE 5613	Fall 2022		Environmental Chemistry	3.75/5	8 graduate students
	Spring 2021	▪		5/5	7 graduate students
CE 5733	Fall 2023		Air Pollution Control	4.17/5	10 graduate students
	Fall 2021	*		5/5	6 graduate students
CE 6953	Summer 2022	*	Life Cycle Analysis	NA	Independent Study
CE 5991					4 graduate students
CE 6991	Spring 2024		Graduate Seminar	IP	7 graduate students
ES 5981/ CE6621					20 graduate students

\*Newly developed course, not previously taught at UTSA

▪New preparation of course previously taught by another instructor

■Peer observation report available

x co-taught course

## Students mentored

Student	Dates		
<b>Students Advised Directly</b>			
<b>Graduate Research Assistants</b>		<b>Program</b>	
Christina Kastely	Jan 2022-present	ESE PhD	
Bradley W. Abbott	Jan 2024-present	MS Urban and Regional Planning	
Abhishek Tiwari	Oct 2023-Dec 2023	MS Computer Science	
Fariha Afnan	Jan 2021-May 2021	ESE PhD	
<b>Graduate Teaching Assistants</b>		<b>Course</b>	
Sina Vedadi Moghadam	Mar 2023-May 2023	CE 4633 Water and Wastewater Treatment	
Arash Jafarzadeh	Jan 2023-May 2023	CE 2633 Environmental Engineering	
Arash Jafarzadeh	Jan 2022-May 2022	CE 2633 Environmental Engineering	
<b>Undergraduate Research Assistants</b>		<b>Affiliation</b>	
Nicholas Williams	Jan 2024-present	BS Chemical Engineering	
Alyssa Arcos	June 2022-August 2023	CIMA-LSAMP, BS Civil UTSA	
Stanley Ngo	Jan 2021-May 2023	BS Mechanical Engineering UTSA	
<b>Committee Member</b>			
<b>Examinations</b>		<b>Exam</b>	<b>Degree</b>
Aimee Steinbrecher	April 2023	Qualifying Exam	ESE PhD
Christina Kastely	Dec 2022	Qualifying Exam	ESE PhD
Felicia Ellis	April 2022	Qualifying Exam	ESE PhD
Arash Jafarzadeh	Sept 2021	Qualifying Exam	CE PhD
Sandra Montalbo	Mar 2021	Qualifying Exam	CE PhD
<b>Thesis Committee</b>		<b>Title</b>	<b>Degree</b>
Karmann Kessler	Jan 2024-present	Bioenergetic Modeling of Fish Species	ESE PhD
Aimee Steinbrecher	Jan 2024-present	Anthropogenic Impact on Stream Health	ESE PhD
Hazem Mahmoud	April 2022-present	Integrating Historical Declassified Imagery, National Aerial Photos and Modern Archive Data for Improving Andean Geodetic Glacier Mass Balance Computation Since the Mid-20th Century	ESE PhD
Fahmida Akter	Fall 2021	Ambient Air Quality Data Analysis for the City of San Antonio	MS CE
Arash Jafarzadeh	Fall 2022-present	Evaluation of Stormwater Detention Basins and Swales in Edwards Aquifer Recharge Zone for the Removal of Micropollutants	CE PhD

		including Heavy Metals, PAHs, and Oil & Grease	
Sandra Montalbo	Feb 2021-present	A Comprehensive Framework to Model, Assess and Enhance Operable Window Integration	CE PhD
<b>Academic Advising</b>			
<b>Who</b>	<b>Date</b>	<b>Program</b>	<b>Hours</b>
14 CE Undergraduates	Jan 2021 – present	CIVITAS advising	12
3 Incoming CE undergraduates	Aug 2022	Summer Bridge Program	3

\*ESE = Environmental Science and Engineering; CE = Civil Engineering

## Professional Development

Activity	Description	Dates	Hours
Faculty Success Alumni Program	Weekly accountability group meetings, daily writing progress check ins	August 2023-present	5
Faculty Success Program	Weekly accountability group meetings, daily writing progress check ins, weekly development activities	May -August 2023	36
Tenure Track Networking Club	Quarterly meetings via Teams with tips from tenured faculty at UTSA	Aug 2020 - present	10
New Faculty Workshops	Attended a series of webinars from Academic Innovation regarding available resources	Aug 2020 – May 2021	15
ACADEME workshop	Met with new engineering faculty from around the country in Alexandria, VA to exchange ideas and make connections	May 17-18, 2022	15
New Faculty Peer Mentor Group	Met weekly with other new faculty via Zoom to discuss insights and challenges of the new position	Aug 2020-May 2021	15

## Professional Affiliations

Organization		Member Since
<b>AEESP</b>	Association of Environmental Engineering and Science Professors	2022
<b>ESWN</b>	Earth Science Women’s Network	2015
<b>TRB</b>	Transportation Research Board	2019
<b>United Way</b>	United Way Emerging Leaders and Women United	2023
<b>USAAE</b>	US Association of Energy Economics	2017

## Service Activities

Activity	Role	Dates	Hours
Department School of Civil and Environmental Engineering and Construction Management			
Recommendation Letters	Writer	Spring 2023-present	4
Mentorship Committee	Member	Spring 2022-present	6
Summer Bridge Program	Lunch with Students	August 2023	1
Department Environmental Science and Engineering Program			
Committee of Graduate Studies (COGS) for the ESE PhD program	COGS member	Spring 2023-present	10
College Klesse College of Engineering and Integrated Design			
College Diversity and Inclusivity Committee	Member	Fall 2022-Spring 2023	5
New Faculty Academy	Panelist	Aug 10, 2022	2
Proposal review for Incorporating In-Demand Technical and Professional Skills into CEID's Curriculum	Peer Reviewer	2021	15
College Laptop Requirement Task Force	Departmental Liaison	Spring 2021	10
Lunch with prospective students	Faculty Representative	June 15, 2022	2
Engineering BBQ Cookoff	Judge	Oct 29, 2022	3
University University of Texas San Antonio			
New Faculty Academy	Panelist	Summer 2023	2
Commencement	Attendee	Spring 2023	4
Seed grant reviewer	Reviewer	Spring 2023	2
Commencement	Banner Marshall	Fall 2022	6
Commencement	Attendee	Fall 2021	4
INTRA seed grant reviewer for REDKE	Reviewer	Spring 2022	8
Professional			
Peer review of journal articles	Peer Reviewer	2020-present	54
Powerhouse Texas	Information Share	2023-present	2
Postdoctoral Program Improvement	Interviewee	August 2, 2021	1
Air Quality, Climate and Energy session at the CMAS conference	Session Co-chair	Oct 2018	--