

**Sinan Sousan, Ph.D.**  
**Assistant Professor**  
**East Carolina University Department of Public Health**  
**Brody School of Medicine/**  
**North Carolina Agromedicine Institute**  
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**Education**

Postdoctoral Student Scholar, Occupational and Environmental Health, College of Public Health, The University of Iowa, Iowa City, IA, *July 2018*

Doctor of Philosophy, Chemical and Biochemical Engineering, The University of Iowa, Iowa City, IA, *July 2012*

Master of Science, Chemical Engineering, The University of Baghdad, Baghdad, Iraq, *June 2000*

Bachelor of Science, Chemical Engineering, The University of Baghdad, Baghdad, Iraq, *June 1997*

**Positions and Employment**

2018-            Assistant Professor, East Carolina University, Department of Public Health, Greenville, NC

2018-            Research Faculty, North Carolina Agromedicine Institute, Greenville, NC

2021-            Adjunct Faculty, East Carolina University, Health Education and Promotion, Greenville, NC

2014-2018      Postdoctoral Research Scholar, The University of Iowa, Iowa City, IA

2012-2014      Scientific Programmer, Carnegie Institution for Science, Stanford, CA

2007-2012      Graduate Research Assistant, The University of Iowa, Iowa City, IA

2007-2008      Teaching Assistant, The University of Iowa, Iowa City, IA

2000-2007      Assistant Professor, The University of Baghdad, Baghdad, Iraq

2000-2003      Lecturer, The University of Technology, Iraq, Baghdad, Iraq

**Awards**

2016 American Industrial Hygiene Association Poster Award

2009 The American Association for Aerosol Research Annual Conference Student Poster Winner

2007 Fulbright Scholarship Award, T.A./ Research Assistant, Master's in Chemical Engineering

**Teaching**

**East Carolina University**

**Courses Taught**

- PUBH 8005 Advanced Control of Occupational Hazards
- PUBH 8003 Issues and Case Studies in Occupational Medicine
- PUBH 8684 Field Practicum
- MPH 6010 Fundamentals of Environmental Health
- MPH 6991 Professional Paper
- MPH 6992 Professional Paper
- EHST 3600 Air Pollution
- EHST 3060 Environmental Issues in Construction
- EHST 2110 Introduction to Environmental Health Science
- EHST 6210 Topics in Environmental Health and Safety
- EHST 6220 Topics in Environmental Health and Safety
- EHST 6990 Directed Graduate Research Project
- EHST 3501 Problems in Environmental Health

- EHST 7000 MSEH Thesis Option
- EHST 6990 Environmental Health Professional Paper
- HLTH 4500 Seniors Honors Independent Study – Project II
- HLTH 4501 Seniors Honors Independent Study – Project III
- HNRS 4550 Signature Honors Project II

#### **Guest Lecturer**

- PUBH 8110 Emerging Issues in Environmental and Occupational Health
- ENVE 3303 Air Quality Engineering

#### **The University of Iowa**

##### **Teaching Assistant**

- Thermodynamics for Engineers
- Fluid Flow for Chemical Engineers

#### **The University of Baghdad**

##### **Courses Taught**

- Computer Programming for Chemical Engineers
- Thermodynamics for Chemical Engineers
- Mass Transfer Operations
- Unit Operations

#### **The University of Technology**

##### **Courses Taught**

- Computer Programming for Chemical Engineers
- Unit Operations
- Fluid Flow

#### **Scholarship**

#### **Peer-Review Publications**

##### **2023**

- Sousan S, Wu Q, Park YM, et al. 2023. Laboratory Determination of Gravimetric Correction Factors for Real-time Area Measurements of Electronic Cigarette Aerosols: Part 2. Journal of Aerosol Science and Technology. <https://doi.org/10.1080/02786826.2022.2047152>

##### **2022**

- Sousan S, Streuber D, Park YM, Coombs V, Pender JE, Soule EK. (2022). Evaluation of low-cost aerosol and gas sensors for real-time measurements of electronic cigarette exposure. Aerosol Science and Technology. 2023;57:153-164. <https://doi.org/10.1080/02786826.2022.2154192>
- Park YM, Chavez D, Sousan S, Figueroa-Bernal N, Alvarez JR, Rocha-Peralta J. 2022. Personal Exposure Monitoring Using GPS-Enabled Portable Air Pollution Sensors: A Strategy to Promote Citizen Awareness and Behavioral Changes Regarding Indoor and Outdoor Air Pollution. Journal of Exposure Science and Environmental Epidemiology. <https://doi.org/10.1038/s41370-022-00515-9>
- Chaaban O, Balanay JAG, Sousan S. 2022. Assessment of best-selling respirators and masks: Do we have acceptable respiratory protection for the next pandemic? American Journal of Infection Control. 2022:1-8. <https://doi.org/10.1016/j.ajic.2022.06.024>

- Streuber D, Park YM, Sousan S. 2002. Laboratory and Field Evaluations of the GeoAir2 Air Quality Monitor for Use in Indoor Environments. *Aerosol and Air Quality Research*. 2022;22:220119. <https://doi.org/10.4209/aaqr.220119>
- Soule, E.K., Sousan, S., Streuber, D., Fresquez, S.E., Mooring, R., Salman, R., Talih, S., Pender, J. (2022). Increased JUUL Emissions from Initial Puffs after Removing and Reinserting Pod. *Chemical Research in Toxicology*. <https://doi.org/10.1021/acs.chemrestox.2c00017>
- Sousan, S., Pender, J., Streuber, D., Haley, M., Shingleton, W., Soule, E. (2022). Laboratory Determination of Gravimetric Correction Factors for Real-time Area Measurements of Electronic Cigarette Aerosols. *Aerosol Science and Technology*, 1-17. <https://doi.org/10.1080/02786826.2022.2047152>

## 2021

- Sousan, S., Fan, M., Outlaw, K., Williams, S., Roper, R.L. (2022). SARS-CoV-2 Detection in air samples from inside heating, ventilation, and air conditioning (HVAC) systems- COVID surveillance in student dorms. *American Journal of Infection Control* 50, 330-335. <https://doi.org/https://doi.org/10.1016/j.ajic.2021.10.009>
- Sousan, S., G. Iverson, C. Humphrey, A. Lewis, D. Streuber and L. Richardson (2021). "High-frequency assessment of air and water quality at a concentration animal feeding operation during wastewater application to spray fields." *Environ Pollut* 288: 117801.
- Sousan, S., S. Regmi and Y. M. Park (2021). "Laboratory Evaluation of Low-Cost Optical Particle Counters for Environmental and Occupational Exposures." *Sensors* 21(12): 4146.
- Park, Y. M., S. Sousan, D. Streuber and K. Zhao (2021). "GeoAir—A Novel Portable, GPS-Enabled, Low-Cost Air-Pollution Sensor: Design Strategies to Facilitate Citizen Science Research and Geospatial Assessments of Personal Exposure." *Sensors* 21(11): 3761.
- Olegario JM, Regmi S, Sousan S. Evaluation of Low-Cost Optical Particle Counters for Agricultural Exposure Measurements. *Applied Engineering in Agriculture*. 2021;37(1):113-122. doi:<https://doi.org/10.13031/aea.14091>
- Sousan S, Garcia N, White A, Balanay JA. Filtration efficiency of surgical sterilization fabric for respiratory protection during COVID-19 pandemic. *American Journal of Infection Control*. 2021;49(1):1-7. doi:10.1016/j.ajic.2020.11.005

## 2020

- Zuidema C, Stebounova LV, Sousan S, et al. Estimating personal exposures from a multi-hazard sensor network. *Journal of Exposure Science & Environmental Epidemiology*. 2020/11/01 2020;30(6):1013-1022. doi:10.1038/s41370-019-0146-1

## 2019

- Zuidema C, Sousan S, Stebounova LV, et al. Mapping occupational hazards with a multi-sensor network in a heavy-vehicle manufacturing facility. *Annals of work exposures and health*. 2019;63(3):280-293
- Zuidema C, Stebounova LV, Sousan S, Thomas G, Koehler K, Peters TM. Sources of error and variability in particulate matter sensor network measurements. *Journal of Occupational and Environmental Hygiene*. 2019/08/03 2019;16(8):564-574. doi:10.1080/15459624.2019.1628965

## 2018

- Sousan S, Gray A, Zuidema C, et al. Sensor Selection to Improve Estimates of Particulate Matter Concentration from a Low-Cost Network. *Sensors*. 2018;18(9):3008.
- Afshar-Mohajer N, Zuidema C, Sousan S, et al. Evaluation of low-cost electro-chemical sensors for environmental monitoring of ozone, nitrogen dioxide, and carbon monoxide.

Journal of Occupational and Environmental Hygiene. 2018/02/01 2018;15(2):87-98.  
doi:10.1080/15459624.2017.1388918

- Hallett L, Tatum M, Thomas G, Sousan S, Koehler K, Peters T. An inexpensive sensor for noise. Journal of Occupational and Environmental Hygiene. 2018:0-0.  
doi:10.1080/15459624.2018.1438614
- Thomas GW, Sousan S, Tatum M, et al. Low-Cost, Distributed Environmental Monitors for Factory Worker Health. Sensors (Basel). 2018;18(5):1411. doi:10.3390/s18051411

## 2017

- Sousan S, Koehler K, Hallett L, Peters TM. Evaluation of consumer monitors to measure particulate matter. Journal of Aerosol Science. 2017/05/01/ 2017;107(Supplement C):123-133.  
doi:https://doi.org/10.1016/j.jaerosci.2017.02.013
- Halterman A, Sousan S, Peters TM. Comparison of Respirable Mass Concentrations Measured by a Personal Dust Monitor and a Personal DataRAM to Gravimetric Measurements. Annals of Work Exposures and Health. 2017;62(1):62-71.  
doi:10.1093/annweh/wxx083
- Peters TM, O'Shaughnessy PT, Grant R, et al. Community airborne particulate matter from mining for sand used as hydraulic fracturing proppant. Sci Total Environ. 2017;609:1475-1482.  
doi:10.1016/j.scitotenv.2017.08.006

## 2016

- Jones S, Anthony TR, Sousan S, Altmaier R, Park JH, Peters TM. Evaluation of a Low-Cost Aerosol Sensor to Assess Dust Concentrations in a Swine Building. The Annals of occupational hygiene. 03/04 2016;60(5):597-607. doi:10.1093/annhyg/mew009
- Sousan S, Koehler K, Hallett L, Peters TM. Evaluation of the Alphasense optical particle counter (OPC-N2) and the Grimm portable aerosol spectrometer (PAS-1.108). Aerosol Science and Technology. 2016/12/01 2016;50(12):1352-1365.  
doi:10.1080/02786826.2016.1232859
- Asner GP, Sousan S, Knapp DE, et al. Rapid forest carbon assessments of oceanic islands: a case study of the Hawaiian archipelago. journal article. Carbon Balance and Management. January 08 2016;11(1):1. doi:10.1186/s13021-015-0043-4
- Sousan S, Koehler K, Thomas G, et al. Inter-comparison of low-cost sensors for measuring the mass concentration of occupational aerosols. Aerosol Science and Technology. 2016/05/03 2016;50(5):462-473. doi:10.1080/02786826.2016.1162901

## 2012

- Stanier C, Singh A, Adamski W, Sousan S et al. Overview of the LADCO winter nitrate study: hourly ammonia, nitric acid and PM<sub>2.5</sub> composition at an urban and rural site pair during PM<sub>2.5</sub> episodes in the US Great Lakes region. Atmos Chem Phys. 2012;12(22):11037-11056.

## Book Chapter

### 2017

- Selmants PC, Giardina CP, Sousan S, et al. Baseline carbon storage and carbon fluxes in terrestrial ecosystems of Hawai'i. Baseline and projected future carbon storage and carbon fluxes in ecosystems of Hawai'i US Geological Survey Professional Paper 1834 Reston, VA: US Department of the Interior, US Geological Survey: 75-87 Chapter 6. 2017;1834:75-87.

## Reports

## **2004**

- The High-Resolution Carbon Geography of Peru Carnegie Airborne Observatory and The Ministry of Environment of Perú. Asner, Greg; Roberta, E. Martin; Raul Tupayachi; Christopher B. Anderson; Joseph Mascaro; Sinan Sousan; Mark Higgins; William Farfan; Miles R. Silman; William Augusto Llactayo León; Adrian Fernando Neyra Palomino. A Collaborative Report of the Carnegie Airborne Observatory and the Ministry of Environment of Perú, 2014.

## **2009**

- Episodic Air Pollution in Wisconsin (LADCO Winter Nitrate Study) and Georgia (SEARCH Network) During Jan.-Mar., 2009. Report Prepared for the Lake Michigan Air Directors Consortium. Baek, J.; Carmichael, G.; Lee, S.; Oleson, J.; Riemer, N.; Rohlf, T.; Sousan, S.; Spak, S.; Stanier, C., Lake Michigan Air Directors Consortium, 2009, 15
- Understanding Episodes of High Airborne Particulate Matter in Iowa. Bender, A., Carmichael, G., Beranek-Collins, A., Brown, M., Holloway, T., Jamroensan, A., Lee, S.-R., Marrapu, P., Pettibone, A., Sousan, S., Spak, S., Stanier, C., A report commissioned by the Bi-State Regional Commission, 2009

## **Ongoing Funding Support**

### **Student assessment of PM2.5 concentration at ECU Transit bus stops using a low-cost aerosol monitor**

Grantor: ECU Undergraduate Research & Creative Activity (URCA) Award  
Amount: \$2,211  
Role: Mentor

### **Spring semester evaluation and calibration of low-cost aerosol sensors**

Grantor: ECU Undergraduate Research & Creative Activity (URCA) Award  
Amount: \$1,768  
Role: Mentor

### **Insecticide resistance in NC mosquitoes 2022-2023 (Richards), 10/22-07/23**

Grantor: North Carolina Department of Health and Human Services  
Amount: \$30,000  
Role: Co-Investigator

### **Electronic cigarette use inside of vehicles and associated secondhand and thirdhand exposures (Soule), 8/20-8/23**

Grantor: National Institute of Environmental Health Sciences  
Amount: \$439,844  
Role: Co-Investigator

## **Previous Funding Support**

### **A user-friendly and low-cost portable air pollution sensor for community-engaged research on environmental health disparities (Park), 8/20-8/21**

Grantor: NCSU Center for Human Health and the Environment  
Amount: \$31,000  
Role: Co-Principal Investigator

**Detecting SARS-CoV-2 in Occupational Settings**

Grantor: ECU Undergraduate Research & Creative Activity (URCA) Award

Amount: \$2,500

Role: Co-Mentor

**WBGT Heat Stress Risk App (Balanay), Spring 2021**

Grantor: ECU Office of Technology Transfer - NSF-funded

Amount: \$3,000

Role: Co-Principal Investigator

**HVAC Sampling and detection of COVID-19 (Sousan), Spring 2021**

Grantor: CARES Act Funding

Amount: \$29,877

Role: Principal Investigator

**Team Science to Support Sustainable Animal Agriculture in North Carolina (Iverson), 8/19-5/21**

Grantor: UNC System Interdisciplinary Project Grant program

Amount: \$55,000

Role: Co-Investigator

**PPE Innovation N95 Project, (Sousan), 3/20-12/20**

Grantor: CARES Act Funding

Amount: \$202,200

Role: Principal Investigator

**Nex-CaFi (Sousan), Fall 2018**

Grantor: ECU Office of Technology Transfer - NSF-funded

Amount: \$3,000

Role: Principal Investigator

**Low-cost Sensors in Agricultural Settings (Sousan), 8/18-8/21**

Grantor: Start-up proposal for new faculty funded by ECU

Amount: \$141,067

Role: Principal Investigator

**Air Quality Improvements in Livestock Production Buildings (Nonnenmann), 9/17-8/18**

Grantor: CDC/NIOSH Grant U54 OH007548

Amount: \$1,372,500

Role: Researcher

**An Inexpensive Monitoring Network to Assess Workplace Exposure (Koehler), 8/14-12/17**

Grantor: US DHHS/CDC/NIOSH (R01 OH010533)

Amount: \$1,111,000

Role: Researcher

**A low-Cost Aerosol Sensing Estimator for Assessing Aerosol Exposure (Sousan), 7/15-6/16**

Grantor: CHEE Seed Grant, (18018211)

Amount: \$30,000 (2015.07.01-2016.06.30)

Role: Principal Investigator

## Conferences- International/ National:

### 2023

- Neha Joseph, Joanna Mathew, Sinan Sousan. April 2023. Spring Evaluation of Low-Cost Aerosol Instruments. North Carolina academy of science conference. Greenville, NC.
- Will Murray, Jo Anne Balanay, Sinan Sousan. April 2023. Student Assessment of PM2.5 Concentration at ECU Transit Bus Stops Using a Low-Cost Aerosol Monitor. North Carolina academy of science conference. Greenville, NC.
- Neha Joseph, Joanna Mathew, Sinan Sousan. April 2023. Spring Evaluation of Low-Cost Aerosol Instruments. ECU Research and Creative Achievement Week. Greenville, NC.
- Will Murray, Jo Anne Balanay, Sinan Sousan. April 2023. Student Assessment of PM2.5 Concentration at ECU Transit Bus Stops Using a Low-Cost Aerosol Monitor. ECU Research and Creative Achievement Week. Greenville, NC.
- Eric K. Soule, Sinan Sousan, Jack Pender, Emily Gold, Luke Thomas, Anish Gogineni, Alex Tiet, Sarah Fresquez, Ronald Mooring, Vivien Coombs. February (2023). Secondhand electronic cigarette aerosol in vehicles impacts indoor air quality. Society for Research on Nicotine and Tobacco Annual Meeting, San Antonio, TX.

### 2022

- Sinan Sousan, Dillon Streuber, Yoo Min Park, Vivien Coombs, Jack Pender, Eric Soule. October 2022. Evaluation of Low-cost Aerosol and Gas Sensors for Real-time Measurements of Electronic Cigarette Exposure. Annual Meeting of American Association for Aerosol Research. Raleigh, NC.
- Dillon Streuber, Yoo Min Park, Sinan Sousan. Laboratory and Field Evaluations of the GeoAir2 Air Quality Monitor for use in Indoor Environments. October 2022. Annual Meeting of American Association for Aerosol Research. Raleigh, NC. Presented by Sinan Sousan.
- Sinan Sousan, Ming Fan, Kathryn Outlaw, Sydney Williams, and Rachel Roper. October 2022. SARS-CoV-2 Detection in Air Samples from Inside Heating, Ventilation, and Air Conditioning (HVAC) Systems-COVID Surveillance in Student Dorms. Annual Meeting of American Association for Aerosol Research. Raleigh, NC
- Omar Chaaban, Jo Anne Balanay, Sinan Sousan. October 2022. Filtration Efficiency of Top 10 Best-Selling Adult Masks Compared to the N95 Respirator. Annual Meeting of American Association for Aerosol Research. Raleigh, NC. Presented by Sinan Sousan
- Sousan, S., Pender, J., Streuber, D., Haley, M. Shingleton, W., Soule, E. October 2022. Laboratory quantification of gravimetric correction factors for real-time measurements of electronic cigarette aerosol exposure. Annual Meeting of American Association for Aerosol Research. Raleigh, NC
- Eric K. Soule, Sinan Sousan, Dillon Streuber, Sarah Fresquez, Trey Mooring, Rola Salman, Soha Talih, Jack Pender. October 2022. Increased JUUL emissions from initial puffs after device activation. Annual Meeting of American Association for Aerosol Research. Raleigh, NC. Presented by Sinan Sousan.
- R. Roper, S Sousan, M Fan, K Outlaw, S Williams, L Johansen, and M Boatman. SARS-CoV-2 Detection in Air Samples from Inside Heating, Ventilation, and Air Conditioning (HVAC) Systems-COVID Surveillance in Student Dorms. American Society for Microbiology Conference, Washington, DC
- Nanaobaayaa Owusu, Sinan Sousan, Stephanie Richards, Jo Anne Balanay. April 2022. Solar Ultraviolet (UV) Radiation Exposure in Outdoor Working Environment During Cold Months. ECU Research and Creative Achievement Week. Greenville, NC.

- Lauren Johansen, Marina Boatman, Sinan Sousan, Ming Fan, Rachel Roper; Detection of SARS-CoV-2 in Dorms Through HVAC System. April 2022; Research & Creative Achievement Week, ECU. Greenville, NC.
- Omar Chaaban, Jo Anne Balanay, Sinan Sousan; Filtration Efficiency of Top 10 Best-Selling Adult Masks Compared to the N95 Respirator. April 2022; Research & Creative Achievement Week, ECU. Greenville, NC
- Eric K. Soule, Sinan Sousan, Dillon Streuber, Sarah Fresquez, Trey Mooring, Rola Salman, Soha Talih, Jack Pender. Increased JUUL emissions from initial puffs after device activation. April 2022; Research & Creative Achievement Week, ECU. Greenville, NC.
- Sousan, S., Pender, J., Streuber, D., Haley, M. Shingleton, W., Soule, E. (2022). Laboratory quantification of gravimetric correction factors for real-time measurements of electronic cigarette aerosol exposure. Society for Research on Nicotine and Tobacco Annual Meeting, Baltimore, MD.
- Tiet, A., Gogineni, A., Gold, E., Sousan, S., Pender, J., & Soule, E. (2022). Associations between electronic cigarette use behaviors inside of vehicles, age, and harm perceptions. Society for Research on Nicotine and Tobacco Annual Meeting, Baltimore, MD.
- Gogineni, A., Tiet, A., Gold, E., Sousan, S., Pender, J., & Soule, E. (2022). Electronic cigarette users' harm perceptions of secondhand exposure and electronic cigarette use in vehicles with adults and children. Society for Research on Nicotine and Tobacco Annual Meeting, Baltimore, MD.
- Soule, E., Sousan, S., Pender, J., Patel, N., Thomas, A. (2022). Electronic cigarette use and combustible tobacco use behaviors inside of vehicles. Research on Nicotine and Tobacco Annual Meeting, Baltimore, MD.
- Soule, E. Sousan, S., Streuber, D., Salman, R., Talih, S., Pender, J. (2022). "Real-world" JUUL emissions likely exceed laboratory generated emissions. Society for Research on Nicotine and Tobacco Annual Meeting, Baltimore, MD.
- Park, Y.M. Sousan, S., Chavez, D. Streuber, D., Zhao, K., Figueroa-Bernal, N., & Alvarez, J. A novel portable, GPS-enabled, low-cost air-pollution sensor to facilitate citizen science research and geospatial assessments of personal exposure. February 2022; American Association of Geographers Annual Meeting, New York, NY.
- Marina Boatman, Lauren Johansen, Ming Fan, Sinan Sousan, and Rachel Roper. Detection of SARS-CoV-2 in Dorm HVAC Systems. February 2022; ECU School of Dental Medicine 7th Annual Celebration of Research and Scholarship. Greenville, NC
- Eric K. Soule, Sinan Sousan, Dillon Streuber, Sarah Fresquez, Trey Mooring, Rola Salman, Soha Talih, Jack Pender. Increased JUUL emissions from initial puffs after device activation. February 2022; ECU School of Dental Medicine 7th Annual Celebration of Research and Scholarship. Greenville, NC.
- Sousan S, Regmi S, Park YM. Laboratory Evaluation of Low-cost Optical Particle Counters for Environmental and Occupational Exposures. October 2021; Annual Meeting of American Association for Aerosol Research. Albuquerque NM.

## 2021

- Sousan S, Regmi S, Park YM. Laboratory Evaluation of Low-cost Optical Particle Counters for Environmental and Occupational Exposures/ 2021. Annual Meeting of American Association for Aerosol Research. Albuquerque NM.
- Sousan S, Iverson G, Humphrey C, Lewis A, Streuber D, Richardson L. Environmental Assessment of Air and Water Quality at a Swine Farm using a Capped Lagoon. 2021; International Society for Agricultural Safety and Health Annual Conference, Virtual.
- Balanay J, Sousan S. Mobile App to Assess WBGT-Heat Stress Risk of Outdoor Workers. 2021; Research & Creative Achievement Week, ECU, Virtual.



- Streuber D, Sousan S, Park YM. Calibration and Correction of the SPS30 Low Cost Optical Particle Counter as Part of the GeoAir 2 Platform for Measuring Personal Exposure. 2021; Research & Creative Achievement Week, ECU, Virtual.

## 2020

- Olegario J, Regmi S, Sousan S. Evaluation of Low-Cost Optical Particle Counters for Agricultural Exposure Measurements. 2020; Research & Creative Achievement Week, ECU, Virtual.
- Regmi S, Sousan S. Evaluation of low-cost optical particle counters for environmental and occupational exposure 2020; Research & Creative Achievement Week, ECU, Virtual.
- Unanka C, Sousan S, Balanay JA. Determination of Breakthrough Time for Combination Respirator Filter/Cartridges with Dimethoate Pesticide: A Methodology Study. 2020; Research & Creative Achievement Week, ECU, Virtual.
- Olegario J, Regmi S, Sousan S. Evaluation of Low-Cost Optical Particle Counters for Agricultural Exposure Measurements. 2020; International Society for Agricultural Safety and Health Annual Conference, Virtual.
- Olegario J, Regmi S, Sousan S. Evaluation of Low-Cost Optical Particle Counters for Agricultural Exposure Measurements. 2020; Annual Meeting of American Association for Aerosol Research, Virtual.
- Olegario J, Regmi S, Sousan S. Evaluation of Low-Cost Optical Particle Counters for Agricultural Exposure Measurements. 2020; MPH Poster Presentation, Virtual.

## 2019

- Constantine Unanka, Sinan Sousan, Jo Anne Balanay. Determination of Breakthrough Time for Combination Respirator Filter/Cartridges w/ Dimethoate Pesticide: A Methodology Study 2019. MPH Poster Presentation.
- Sousan S, Hallett L, Koehler K, Peters TM. Evaluation of Consumer-based Photometers for Measuring Environmental and Occupational Aerosols. 2016; American Industrial Hygiene Conference & Exposition, Baltimore, MD.
- Nonnenmann M, Anthony T, Sousan S, Altmaier R, Gibbs J, Ramirez A. Air Quality in Livestock Production Buildings: Evaluating a Prototype Aerosol Control Technology to Reduce Dust Concentrations in Commercial Swine Farrowing. 2019; International Society for Agricultural Safety and Health Annual Conference, Des Moines, IA.
- Sousan S. Advancements in Exposure Measurements and Low-cost Sensors in Agriculture. 2019; North Carolina Agromedicine Institute - Agricultural Health and Safety Symposium, Raleigh, NC.

## 2017

- Hallett L, Sousan S, Tatum M, Thomas GW, Peters TM. Laboratory Evaluation of a Noise Sensor for use in an Inexpensive Sensor Network. 2017; Occupational and Environmental Health Research Week, Iowa City, IA.

## 2016

- Sousan S, Koehler K, Hallett L, Peters TM. Evaluation of the Alphasense Optical Particle Counter (OPC-N2) and the Grimm Portable Aerosol Spectrometer (PAS-1.108). 2016; Annual Meeting of American Association for Aerosol Research, Portland, OR.

## 2015

- Sousan S, Koehler K, Thomas G, Park JH, Hillman M, Peters TM. Evaluation of a low-cost direct reading instrument for fine and coarse aerosol particles 2015; Annual Meeting of American Association for Aerosol Research; Minneapolis, MN.

## **2011**

- Sousan S, Baek J, Spak S, et al. Optimizing Data Assimilation Parameters for Improved CMAQ PM2.5 Estimates Over the United States to Inform Epidemiological Studies. presented at: American Geophysical Union; 2011; San Francisco, CA.
- Sousan S, Baek J, Spak S, et al. Optimizing Data Assimilation Parameters for Improved CMAQ PM2.5 Estimates Over the United States to Inform Epidemiological Studies 2011; Annual Meeting of American Association for Aerosol Research; Orland, FL.
- Sousan S, Baek J, Spak S, et al. Optimizing Data Assimilation Parameters for Improved CMAQ PM2.5 Estimates Over the United States to Inform Epidemiological Studies 2011; American Institute of Chemical Engineers; Minneapolis, MN.

## **2010**

- Sousan S, Baek J, Kumar N, et al. Use of Surface Measurements and MODIS Aerosol Optical Depth for Improved Model Based PM2.5 Prediction in the United States. 2010; Community Modeling and Analysis System, Raleigh, NC.
- Sousan S, Baek J, Kumar N, et al. Use of Surface Measurements and MODIS Aerosol Optical Depth for Improved Model Based PM2.5 Prediction in the United States. 2010; American Institute of Chemical Engineers, Salt Lake City, UT.

## **2009**

- Sousan S, Kumar N, Spak S, Beranek-Collins A, Carmichael G, Stanier C. Use of Surface Measurements and Modis Aerosol Optical Depth for Improved Model Based PM2.5 Prediction in the United States. 2009; American Institute of Chemical Engineers, Nashville, TN.
- Stanier C, Bender A, Carmichael G, et al. Understanding Episodes of High Airborne Particulate Matter in the Upper Midwest. 2009; Annual Meeting of American Association for Aerosol Research; Minneapolis, MN.
- Sousan S, Kumar N, Spak S, Beranek-Collins A, Carmichael G, Stanier C. Use of Surface Measurements and Modis Aerosol Optical Depth for Improved Model Based PM2.5 Prediction in the United States. 2009; Annual Meeting of American Association for Aerosol Research, Minneapolis, MN.

## **Committee Service**

Fall 2018- Doctor of Public Health-Environmental and Occupational Health Committee, ECU  
Fall 2018- North Carolina Agromedicine Institute Board of Partners  
Fall 2018- Vice-Chairs of Diversity and Inclusion Committee, Brody School of Medicine ECU  
Spring 2021- Graduate Council Member at ECU

## **Service to the University**

2021 HVAC Sampling and detection of COVID-19  
2020 PPE Innovation N95 Project

## **Other Institutional Service Activities:**

Spring 2023 Department of Public Health Workload Policy  
Spring 2019 Environmental Health Hiring Committee, ECU

## **Honors and Awards**

2022 Outstanding Faculty Mentor Award, ECU Honors College  
2021 Friends of Laupus Library for the 2021 Health Sciences Author Recognition Award, ECU  
2016 Best Poster Award, American Industrial Hygiene Conference & Exposition (AIHce)  
2009 Student Poster Winner, The American Association for Aerosol Research (AAAR)  
2007 Fulbright Scholarship Award, Fulbright Student Program

## **Professional Membership**

- Center for IOT Engineering and Innovation
- Water Resource Center (WRC)
- Center for Human Health and the Environment (CHHE)
- American Association for Aerosol Research (AAAR)
- International Society for Agricultural Safety and Health (ISASH)
- North Carolina Public Health Association (NCPHA)

## **Service to Profession**

- Guest Editor of a Special Issue of the Journal Atmosphere
- MDPI Journal of Sensors Reviewer Board
- Journal manuscripts reviewed

<b>Journal</b>	<b>No. of Reviews</b>
○ Aerosol and Air Quality Research	20
○ Sensor	8
○ Aerosol Science & Technology	8
○ Applied Sciences	6
○ Remote Sensing	2
○ Journal of Occupational & Environmental Hygiene	6
○ Environmental Science & Technology Letters	2
○ Tobacco Prevention and Cessation	2
○ Annals of Occupational Hygiene	2
○ International Journal of Environmental Research and Public Health	3
○ Atmospheric Environment	2
○ Sustainable Cities and Society	1
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