
CURRICULUM VITAE

Sinan Sousan, Ph.D.
Assistant Professor
Department of Public Health
Brody School of Medicine/East Carolina University
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252.328.2947

Education

- Postdoctoral 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*
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Positions and Employment

2023- *Co-lead Climate Change and Airborne Contaminants RIG, Center for Human Health and the Environment, North Carolina State University, Raleigh NC*

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

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

2018- *Assistant Professor, North Carolina Agromedicine Institute, 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

2023 Friends of ECU Laupus Library for the 2022 Health Sciences Author Recognition Award

2022 Friends of ECU Laupus Library for the 2021 Health Sciences Author Recognition Award

2022 ECU Honors College Faculty Mentor Award

2021 Friends of ECU Laupus Library for the 2020 Health Sciences Author Recognition Award

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

Instructional Courses Taught at ECU (Instructor)

| Semester | Course Prefix | Course Number | Section | Credit Hours | Course Title | No. of Students |
|-------------|---------------|---------------|---------|--------------|--|-----------------|
| Spring 2019 | EHST | 2110 | 002 | 3 | Intro Environmental Health Science | 59 |
| Spring 2019 | EHST | 3060 | 001 | 4 | Environmental Issues in Construction | 5 |
| Fall 2019 | EHST | 3600 | 001 | 3 | Air Pollution | 8 |
| Fall 2019 | PUBH | 8005 | 001 | 3 | Advanced Control of Occupational Hazards | 1 |
| Fall 2019 | PUBH | 8005 | 601 | 3 | Advanced Control of Occupational Hazards | 2 |
| Spring 2020 | EHST | 2110 | 002 | 3 | Intro Environmental Health Science | 56 |
| Spring 2020 | EHST | 3060 | 001 | 4 | Environmental Issues in Construction | 7 |
| Summer 2020 | MPH | 6010 | 601 | 3 | Fundamentals of Environmental Health | 23 |
| Fall 2020 | EHST | 3600 | 001 | 3 | Air Pollution | 8 |
| Spring 2021 | PUBH | 8003 | 601 | 3 | Issues and Case Studies in Occupational Medicine | 7 |
| Spring 2021 | EHST | 2110 | 604 | 3 | Intro Environmental Health Science | 58 |
| Spring 2021 | EHST | 3060 | 001 | 4 | Environmental Issues in Construction | 5 |
| Fall 2021 | PUBH | 8005 | 001 | 3 | Advanced Control of Occupational Hazards | 1 |
| Fall 2021 | PUBH | 8005 | 601 | 3 | Advanced Control of Occupational Hazards | 5 |

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|-------------|------|------|------|---|--|----|
| Spring 2022 | PUBH | 8003 | 601 | 3 | Issues and Case Studies in Occupational Medicine | 5 |
| Summer 2022 | MPH | 6010 | 601C | 3 | Fund of Environmental Health | 19 |
| Fall 2022 | PUBH | 8005 | 601 | 3 | Advanced Control of Occupational Hazards | 4 |
| Spring 2023 | PUBH | 8003 | 601 | 3 | Issues and Case Studies in Occupational Medicine | 4 |
| Spring 2023 | MPH | 6010 | 601 | 3 | Fund of Environmental Health | 15 |
| Fall 2023 | PUBH | 8005 | 601 | 3 | Advanced Control of Occupational Hazards | 1 |
| Fall 2023 | EHST | 2110 | 005 | 3 | Intro Environmental Hlth Scie | 40 |
| Spring 2024 | PUBH | 8003 | 601 | 3 | Issues and Case Studies in Occupational Medicine | 1 |
| Spring 2024 | MPH | 6010 | 601 | 3 | Fund of Environmental Health | 18 |

Non-Instructional (Mentorship) Courses Taught at ECU (Instructor)

| Semester | Course Prefix | Course Number | Section | Credit Hours | Course Title | No. of Students |
|-------------|---------------|---------------|---------|--------------|---|-----------------|
| Spring 2019 | EHST | 6210 | 602 | 1 | Topics in Environmental Health and Safety | 1 |
| Spring 2019 | MPH | 6992 | 011 | 1 | MPH Professional Paper | 1 |
| Fall 2019 | EHST | 6220 | 602 | 2 | Topics in Environmental Health and Safety | 1 |
| Fall 2019 | EHST | 6210 | 001 | 1 | Topics in Environmental Health and Safety | 1 |

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|-------------|------|------|------|---|---|---|
| Fall 2019 | MPH | 6991 | 611 | 1 | MPH Professional Paper | 1 |
| Spring 2020 | MPH | 6992 | 011 | 1 | MPH Professional Paper | 1 |
| Spring 2020 | EHST | 6990 | 600 | 3 | Directed Graduate Research Project | 1 |
| Spring 2020 | EHST | 6220 | 0020 | 2 | Topics in Environmental Health and Safety | 1 |
| Fall 2020 | MPH | 6991 | 002 | 1 | MPH Professional Paper | 1 |
| Fall 2020 | EHST | 7000 | 001 | 3 | Thesis | 1 |
| Fall 2020 | EHST | 6210 | 001 | 1 | Topics in Environmental Health and Safety | 1 |
| Spring 2021 | PUBH | 8684 | 605 | 5 | Field Practicum | 2 |
| Spring 2021 | MPH | 6992 | 611 | 1 | MPH Professional Paper | 1 |
| Spring 2021 | EHST | 6220 | 606 | 2 | Topics in Environmental Health and Safety | 2 |
| Spring 2021 | EHST | 6210 | 606 | 1 | Topics in Environmental Health and Safety | 1 |
| Spring 2021 | EHST | 3501 | 001 | 2 | Problems in Environmental Health | 1 |
| Fall 2021 | EHST | 6210 | 604 | 1 | Topics in Environmental Health and Safe | 1 |
| Fall 2021 | EHST | 6220 | 604 | 2 | Environ Health and Safety | 1 |
| Fall 2021 | EHST | 7000 | 002 | 3 | Thesis | 1 |
| Fall 2021 | HLTH | 4500 | 006 | 1 | Independent Study | 3 |
| Fall 2021 | HLTH | 4501 | 006 | 2 | Independent Study | 3 |
| Fall 2021 | HNRS | 4500 | 019 | 3 | Senior Honors Project I | 1 |

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|-------------|------|------|------|----|----------------------------------|----|
| Fall 2021 | HNRS | 4500 | 020 | 3 | Senior Honors Project I | 1 |
| Spring 2022 | EHST | 6990 | 602 | 3 | Directed Graduate Res Project | 1 |
| Spring 2022 | HNRS | 4550 | 001 | 3 | Senior Honors Project II | 2 |
| Spring 2022 | HNRS | 4550 | 022 | 3 | Senior Honors Project II | 1 |
| Spring 2022 | HNRS | 4550 | 023 | 3 | Senior Honors Project II | 1 |
| Spring 2022 | HNRS | 4550 | 024 | 3 | Senior Honors Project II | 1 |
| Summer 2022 | PUBH | 8684 | 602C | 5 | Field Practicum | 1 |
| Summer 2022 | MPH | 6991 | 608C | 2 | MPH Professional Paper | 1 |
| Summer 2022 | MPH | 6010 | 601C | 3 | Fund of Environmental Health MPH | 19 |
| Fall 2022 | MPH | 6992 | 611 | 1 | Professional Paper | 2 |
| Fall 2022 | HNRS | 4500 | 020 | 3 | Senior Honors Project I MPH | 2 |
| Spring 2023 | MPH | 6991 | 608 | 2 | Professional Paper | 1 |
| Spring 2023 | PUBH | 9000 | 607 | 5 | Dissertation Research | 1 |
| Summer 2023 | HNRS | 4103 | 001A | 3 | Independent Study MPH | 1 |
| Summer 2023 | MPH | 6992 | 611 | 1 | Professional Paper | 1 |
| Summer 2023 | MPH | 6991 | 611 | 2 | Professional Paper | 2 |
| Summer 2023 | PUBH | 9000 | 606C | 12 | Dissertation Research | 1 |
| Fall 2023 | MPH | 6992 | 611 | 1 | Professional Paper | 1 |
| Fall 2023 | DrPH | 9000 | 604 | 12 | Dissertation Research | 2 |
| Spring 2024 | HNRS | 4500 | 022 | 3 | Senior Honors Project I | 3 |
| Spring 2024 | HNRS | 4550 | 005 | 3 | Senior Honors Project II | 2 |
| Spring 2024 | HNRS | 4550 | 024 | 3 | Senior Honors Project II | 1 |

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|-------------|------|------|-----|----|-----------------------|---|
| Spring 2024 | DrPH | 9000 | 607 | 12 | Dissertation Research | 2 |
| Spring 2024 | MPH | 6991 | 608 | 2 | Professional Paper | 1 |

Guest Lecturer

| Semester | Course Prefix | Course Number | Course Title |
|-------------|---------------|---------------|--|
| Fall 2020 | ENVE | 3303 | Air Quality Engineering |
| Fall 2021 | ENVE | 3303 | Air Quality Engineering |
| Fall 2022 | ENVE | 3303 | Air Quality Engineering |
| Spring 2020 | PUBH | 8110 | Emerging Issues in Environmental and Occupational Health Class |

Course Creation

- PUBH 8003 - Issues and Case Studies in Occupational Medicine, Spring 2021
- PUBH 8005 - Advanced Control of Occupational Hazards, Fall 2019

Courses Taught Before ECU

| Semester | Role | Course Prefix | Course Number | Section |
|---------------------------|--------------------|--------------------------|---|---------|
| Fall 2000- Spring 2001 | Instructor | University of Baghdad | Unit Operations Laboratory | 150 |
| Fall 2000- Spring 2001 | Instructor | University of Technology | Unit Operations Laboratory | 100 |
| Fall 2000- Spring 2001 | Instructor | University of Technology | Fluid Flow Laboratory | 100 |
| Fall 2001- Spring 2002 | Teaching Assistant | University of Baghdad | Mass Transfer Operations | 150 |
| Fall 2001- Spring 2002 | Instructor | University of Baghdad | Programming for Chemical Engineers Laboratory | 150 |
| Fall 2001- Spring 2002 | Instructor | University of Technology | Unit Operations Laboratory | 100 |
| Fall 2001- Spring 2002 | Instructor | University of Technology | Fluid Flow Laboratory | 100 |
| Fall 2002- Spring 2003 | Teaching Assistant | University of Baghdad | Thermodynamics for Chemical Engineers | 150 |
| Fall 2002- Spring 2003 | Instructor | University of Baghdad | Programming for Chemical Engineers Laboratory | 150 |

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|------------------------------|-----------------------|--------------------------|--|-----|
| Fall 2002- Spring 2003 | Instructor | University of Technology | Programming for Chemical Engineers | 100 |
| Fall 2002- Spring 2003 | Instructor | University of Technology | Unit Operations Laboratory | 100 |
| Fall 2002- Spring 2003 | Instructor | University of Technology | Fluid Flow Laboratory | 100 |
| Fall 2003- Spring 2004 | Instructor | University of Baghdad | Programming for Chemical Engineers | 150 |
| Fall 2003- Spring 2004 | Instructor | University of Baghdad | Programming for Chemical Engineers Laboratory | 150 |
| Fall 2004- Spring 2005 | Instructor | University of Baghdad | Programming for Chemical Engineers | 150 |
| Fall 2004- Spring 2005 | Instructor | University of Baghdad | Programming for Chemical Engineers Laboratory | 150 |
| Fall 2005- Spring 2006 | Instructor | University of Baghdad | Programming for Chemical Engineers | 150 |
| Fall 2005- Spring 2006 | Instructor | University of Baghdad | Programming for Chemical Engineers Laboratory | 150 |
| Fall 2006- Spring 2007 | Instructor | University of Baghdad | Programming for Chemical Engineers | 150 |
| Fall 2006- Spring 2007 | Instructor | University of Baghdad | Programming for Chemical Engineers Laboratory | 150 |
| Fall 2007 | Teaching Assistant | University of Iowa | Thermodynamics for Engineers | 200 |
| Fall 2008 | Teaching Assistant | University of Iowa | Fluid Flow for Chemical Engineers | 50 |

Guest Lecturer Before ECU

| Semester | Course Prefix | Course Number |
|-----------------|----------------------|----------------------|
| Fall 2014 | University of Iowa | Aerosol Technology |
| Fall 2016 | University of Iowa | Aerosol Technology |

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Student Advising and Mentoring (Role in-between parentheses)

Graduate Students

DrPH Dissertation

1. Aaliysha Brown (Fall 2023 – Current, Advisor): Annual Evaluation and Machine Learning Calibration of Low-cost Sensors and Monitors.
2. Dekoda Murphy (Spring 2023 - Current, Advisor): Effects of Lockdown on the Air Quality of the Three Most Populated Cities in North Carolina During Covid-19 Pandemic.

MPH ProPaper

1. Andrew Urbanyi (Fall 2024 – Summer 2024, Advisor): Electronic Cigarette Secondhand Aerosol Effects on Children: A Literature Review.
2. Nicole Bertges (Summer 2023 – Fall 2023, Advisor): Examination of Factors that Impact Respirator Purchase and Usage.
3. Jane Blackerby (Spring 2023 – Summer 2023, Advisor): Evaluation of the MiniWRAS spectrometer compared to the reference SMPS and APS aerosol monitors.
4. Austin Close (Fall 2022 – Spring 2023, Advisor): Effects of E-Cigarette Liquid Ratios on the Gravimetric Filter Correction Factors and Real-Time Measurements.
5. Ashley Lewis (Fall 2022 – Spring 2023, Advisor): Benefits and Economical Impacts of Swine Lagoon Covers.
6. Justine Olegario (Fall 2019 – Spring 2020, Advisor): Evaluation of Low-Cost Optical Particle Counters for Agricultural Exposure Measurements.
7. Constantine Unanka (Fall 2019 – Fall 2020, Advisor): Determination of Breakthrough Time for Combination Respirator Filter/Cartridges with Dimethoate Pesticide: A Methodology Study.

Master's Thesis

1. Will Murray (Spring 2024- Current, Committee Co-Chair): Efficacy of Water- and Oil-Based Mosquito Control Formulated Products Evaluated Against Mosquitoes in a Novel Compact Wind Tunnel.
2. Abdulahi Opejin (Spring 2023- Current, Committee Co-Chair): Assessing Bias in Personal Exposure Levels When Indoor Air Quality and Human Mobility are Ignored: A Case Study of Eastern North Carolina
3. Bridget Angol (Fall 2022- Spring 2024, Committee Co-Chair): Comparison between WBGT App Prototype and WBGT Monitor to Assess Heat Stress Risk in Groundskeeping in an Eastern North Carolina University Setting.
4. Dillon Streuber (Fall 2020 – Fall 2021, Advisor, Chair): A user-friendly and low-cost portable air pollution sensor for community-engaged research on environmental health disparities.
5. Nana Owusu (Fall 2020- Spring 2022, Committee Co-Chair): Solar Ultraviolet (UV) Radiation Exposure in an Eastern North Carolina Outdoor Working Environment During Cold Months.
6. Swastika Regmi (Spring 2020- Fall 2020, Advisor, Chair): Evaluation of low-cost optical particle counters for environmental and occupational exposures.

Master's ProPaper

1. Ryan Mohansingh (Fall 2023- Current, Committee Co-Advisor)
2. Justin Kerbow (Spring 2021 – Fall 2021, Advisor): Industrial lead air pollution and its effects on child development.

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3. Constantine Unanka (Spring 2019 – sPRING 2020, Co-Advisor): Assessment of Breakthrough Occurrence in Respirator Filter Cartridge using Dimethoate.

Graduate Assistant

1. Crystal Daily (Fall 2022 – Spring 2023): Evaluation of the MiniWRAS spectrometer compared to the reference SMPS and APS aerosol monitors.
2. Trisha Sadashiva Shetty (Fall 2018 – Spring 2019, Mentor): Development of an operational low-cost sensor using a microcomputer.
3. Neil Henry (Fall 2018, Mentor): Evaluating environmental exposure for underground fuel storage tanks.

Undergraduate Students

Signature Honors Project Thesis

1. Gabriela Perez and Emma Piner (Fall 2023 - Spring 2024, Thesis Advisor): The Effects of Power Settings and Liquid Flavors on the Gravimetric Filter Correction Factors and Real-Time Measurements
2. Daniel Walker and Amelia Tart (Fall 2023 - Spring 2024, Thesis Advisor): The Effects of Commercial Grade E-Cigarette Chemical Ratios and Nicotine Strength on the Gravimetric Filter Correction Factors and Real-Time Measurements
3. Michael Brannin (Fall 2023 - Spring 2024, Thesis Advisor): Spring Evaluation and Calibration of Low-Cost Aerosol Sensors.
4. Will Murray (Spring 2023, Thesis Advisor): Student Assessment of PM2.5 Concentration at ECU Transit Bus Stops Using a Low-Cost Aerosol Monitor.
5. Neha Joseph and Joanna Mathew (Fall 2022- Spring 2023, Thesis Advisor): Spring Evaluation and Calibration of Low-Cost Aerosol Sensors.
6. Trey Mooring and Sarah Fresquez (Fall 2021- Spring 2022, Thesis Advisor): Electronic cigarette use inside of vehicles and associated secondhand and thirdhand exposures.
7. Marina Boatman and Lauren Johansen (Fall 2021- Spring 2022, Thesis Advisor): Fall HVAC Sampling and Detection of COVID-19.
8. Omar Chaaban (Fall 2021- Spring 2022, Thesis Advisor): Measuring the Filtration Efficiency of the Best-Selling Alternative Masks on Amazon.com.

Engineering Capstone Project

1. Jacob Sanders, David Massey, Shane Rouse, Matthew Stengrim (Fall 2022-Spring 2023, Mentor) RGB Based Aerosol Monitor

Research Assistant

1. Karrington O'Rourke (Summer 2023, Mentor): Summer Evaluation and Calibration of Low-Cost Aerosol Sensors.
2. Sarah Fresquez and Nathaniel Batts (Summer 2022, Mentor) Electronic cigarette use inside of vehicles and associated secondhand and thirdhand exposures.
3. Vivien Coombs (Spring 2022, Mentor): Electronic cigarette use inside of vehicles and associated secondhand and thirdhand exposures.
4. Will Shingleton and Meaghan Haley (Fall 2020- Spring 2021, Mentor): Electronic cigarette use inside of vehicles and associated secondhand and thirdhand exposures.
5. Kathryn Outlaw and Sydney Williams (Fall 2020- Spring 2021, Mentor): Spring HVAC Sampling and Detection of COVID-19.
6. Jessica McKoy (Fall 2020- Spring 2021, Mentor): Evaluating low-cost sensors in environmental settings.

Patents, Peer-Review Publications, Book Chapters and Reports

Patents and Intellectual Property (IP)

2023

1. Stephanie Richards and **Sinan Sousan**, Wind Tunnel for Assessment of Insecticides. Fall 2023. Provisional Patent US Application 63/588137.
2. Jo Anne Balanay and **Sinan Sousan**, "Temper": A WBGT-based heat stress assessment web app prototype. Summer 2023. IP2402 and technology ID TT2402.

Peer-Review Publications (Published at ECU = 24) (*Student led publication-senior author, total at ECU = 4)

2024

1. Richards, S. L., **Sousan, S.**, Murray, W., White, A., Peyton, K., & Slade, R. Development of novel compact wind tunnel for testing efficacy of insecticide formulated products in mosquitoes. *Pest Management Science*, 2024. <https://doi.org/https://doi.org/10.1002/ps.8018>.
2. **Sousan, S.**, Boatman, M., Johansen, L., Fan, M., & Roper, R. L. (2024). Comparing and validating air sampling methods for SARS-CoV-2 detection in HVAC ducts of student dorms. *Environmental Pollution*, 343, 123164. <https://doi.org/https://doi.org/10.1016/j.envpol.2023.123164>

2023

3. Owusu, N.-O., S. **Sousan, S.** L. Richards, J. A. G. Balanay. Occupational exposure to solar ultraviolet radiation in an eastern North Carolina university outdoor setting during the four seasons. *Journal of Occupational and Environmental Hygiene*:1-9. doi: 10.1080/15459624.2023.2264331
4. **Sousan, S.**, Mooring, R., Fresquez, S., Park, Y. M., Coombs, V., Bertges, N., Soule, E. K. (2023). Use of real-time monitors to evaluate the potential exposure of secondhand electronic cigarette particulate matter inside vehicles. *Environmental Pollution*, 122480. doi:<https://doi.org/10.1016/j.envpol.2023.122480>
5. **Sousan S**, Anthony TR, Altmaier R, Gibbs J, Nonnenmann M. Use of prototype side stream filtration system to control dust levels in a commercial swine farrowing building. *Journal of Occupational and Environmental Hygiene*. 2023 Aug 15:1-16. <https://doi: 10.1080/15459624.2023.2247457>
6. *Close, A., Blackerby, J., Tunnell, H., Pender, J., Soule, E., & **Sousan, S.** (2023). Effects of E-Cigarette Liquid Ratios on the Gravimetric Filter Correction Factors and Real-Time Measurements. *Aerosol and Air Quality Research*, 23, 230011. <https://doi.org/10.4209/aaqr.230011>
7. Soule, E. K., **Sousan, S.**, Pender, J., Thomas, A., & Patel, N. (2023). Electronic cigarette use and cigarette smoking in vehicles among adults who use electronic cigarettes and cigarettes in the USA. *Tobacco Control*. <http://dx.doi.org/10.1136/tc-2022-057898>
8. Soule EK, **Sousan S**, Pender J, Thomas L, Gold E, Fresquez S, et al. Secondhand electronic cigarette aerosol in vehicles impacts indoor air quality. *Drug and Alcohol Dependence*. 2023:110889. <https://doi.org/10.1016/j.drugalcdep.2023.110889>.
9. **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>
10. **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>

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11. 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>
12. *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>

2022

13. *Streuber D, Park YM, **Sousan S**. 2022. 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>
14. 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>
15. **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>
16. **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>

2021

17. **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. <https://doi.org/10.1016/j.envpol.2021.117801>
18. **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. <https://doi.org/10.3390/s21124146>
19. Park, Y. M., **Sousan S**, 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. <https://doi.org/10.3390/s21113761>
20. *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>
21. **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

22. 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

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2019

23. 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. doi:10.1093/annweh/wxy111
24. 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

25. **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. <https://doi.org/10.3390/s18093008>

Before ECU

26. 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
27. 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
28. 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

29. **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>
30. 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
31. Peters TM, O'Shaughnessy PT, Grant R, **Sousan S** 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

32. 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
33. **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
34. 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
35. **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

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2012

36. Stanier C, Singh A, Adamski W, **Sousan S** et al. Overview of the LADCO winter nitrate study: hourly ammonia, nitric acid and PM2.5 composition at an urban and rural site pair during PM2.5 episodes in the US Great Lakes region. Atmos Chem Phys. 2012;12(22):11037-11056.

Book Chapter

2017

1. 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

1. 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

2. 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
3. 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

Research Funding

Ongoing Funding Support (total = 6)

1. **Establishing Airborne Contaminant Exposure Laboratory at Brody School of Medicine, Fall 2023-Current**

Grantor: Brody School of Medicine, ECU

Amount: **\$321,151**

Role: PI

2. **Development of a novel compact wind tunnel for testing formulated products against mosquitoes and other insects, Spring 2024-Current**

Grantor: North Carolina Biotechnology Center

Amount: **\$27,500**

Role: Co-PI

Sinan Sousan (Spring 2024)

3. Wind tunnel development for pesticide applications, Fall 2023-Current

Grantor: ECU Office of Technology Transfer - NSF-funded

Amount: **\$5,000**

Role: Co-PI

4. WBGT-based Heat Stress Assessment Mobile Application, Fall 2023-Current

Grantor: The American Industrial Hygiene Association

Amount: **\$26,834**

Role: Co-PI

5. The Effects of Power Settings and Liquid Flavors on the Gravimetric Filter Correction Factors and Real-Time Measurements, Fall 2023-Current

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

Amount: **\$1,724**

Role: Mentor

6. The Effects of Commercial Grade E-Cigarette Chemical Ratios and Nicotine Strength on the Gravimetric Filter Correction Factors and Real-Time Measurements, Fall 2023-Current

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

Amount: **\$1,954**

Role: Mentor

Pending (total = 4)

1. Renewal for Center for Human Health and the Environment at North Carolina University, Spring 2024

Grantor: National Institute of Environmental Health Sciences (P30), Sub-Award from North Carolina State University

Amount: **\$67,220**

Role: PI

2. Insecticide Resistance Testing of Formulated Products in North Carolina Mosquitoes 2024-2025, Spring 2024

Grantor: North Carolina Department of Health and Human Services

Amount: **\$156,000**

Role: Co-I

3. Low-cost, disaster-resilient, self-deployable, networked solution for community monitoring of air quality, Spring 2023

Grantor: National Institute of Environmental Health Sciences (R21)

Amount: **\$275,000**

Role: PI

4. Track 1 Acquisition of a Raman Spectroscopy System to Advance Frontier, Multidisciplinary Basic and Applied Research, Teaching, and Training in STEM, Fall 2023

Grantor: National Science Foundation - MRI

Amount: **\$1,033,245**

Role: Co-PI

Previous Funding Support (total = 12)

1. Insecticide resistance in NC mosquitoes, Fall 2022 -Summer 2023

Grantor: North Carolina Department of Health and Human Services

Amount: **\$30,000**

Sinan Sousan (Spring 2024)

Role: Co-I

- 2. Environmental Assessment of PM_{2.5} Concentration at ECU Transit Bus Stops using a Low-Cost Aerosol Monitor, Spring 2023**
Grantor: ECU Undergraduate Research & Creative Activity (URCA) Award
Amount: **\$1,768**
Role: Mentor
- 3. Environmental Evaluation and Calibration of Low-Cost Aerosol Sensors, Fall 2022-Spring 2023**
Grantor: ECU Undergraduate Research & Creative Activity (URCA) Award
Amount: **\$2,111**
Role: Mentor
- 4. Detecting SARS-CoV-2 in Occupational Settings, Fall 2021-Spring 2022**
Grantor: ECU Undergraduate Research & Creative Activity (URCA) Award
Amount: **\$2,500**
Role: Co-Mentor
- 5. Electronic cigarette use inside of vehicles and associated secondhand and thirdhand exposures (Soule), 8/20-8/23**
Grantor: National Institute of Environmental Health Sciences (R15)
Amount: **\$439,844**
Role: Co-I
- 6. 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-I
- 7. WBGT Heat Stress Risk App (Balanay), Spring 2021**
Grantor: ECU Office of Technology Transfer - NSF-funded
Amount: **\$3,000**
Role: Co-PI
- 8. HVAC Sampling and detection of COVID-19 (Sousan), Spring 2021**
Grantor: CARES Act Funding
Amount: **\$29,877**
Role: PI
- 9. 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
- 10. PPE Innovation N95 Project, (Sousan), 3/20-12/20**
Grantor: CARES Act Funding
Amount: **\$202,200**
Role: PI
- 11. Nex-CaFi (Sousan), Fall 2018**
Grantor: ECU Office of Technology Transfer - NSF-funded

Sinan Sousan (Spring 2024)

Amount: **\$3,000**

Role: PI

12. 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: PI

Before ECU

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

Grantor: CDC/NIOSH Grant U54 OH007548

Amount: **\$1,372,500**

Role: Researcher

14. 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

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

Grantor: CHEEC Seed Grant, (18018211)

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

Role: PI

Projects Not Funded (total = 21)

1. Comparison of bottle bioassay, wind tunnel, and field trial for assessment of insecticide efficacy against mosquitoes, Spring 2024

Grantor: North Carolina Pesticide Environmental Trust Fund

Amount: **\$30,590**

Role: Co-I

2. AI-enhanced low-cost sensor networks to monitor environmental effects of an open hog waste lagoon in rural communities and quantify effects of mitigation strategies, Summer 2023

Grantor: North Carolina Attorney General's Environmental Enhancement Grant

Amount: **\$500,000**

Role: PI

3. Comparison of bottle bioassay and novel compact wind tunnel device exposure methods for assessment of insecticide resistance in mosquitoes, Spring 2023

Grantor: The American Mosquito Control Association Research

Amount: **\$978,053**

Role: Co-I

4. Estimating core body temperature using physiological and environmental factors with a random forest regression model, Spring 2023

Grantor: National Institutes of Health (R15)

Amount: **\$275,000**

Role: PI

Sinan Sousan (Spring 2024)

- 5. Low-cost, disaster-resilient, self-deployable, networked solution for community monitoring of air quality, Fall 2022**
Grantor: NCSU Center for Human Health and the Environment
Amount: **\$25,000**
Role: PI
- 6. The Effects of Changing the Power on Electronic Cigarettes, Spring 2022**
Grantor: ECU Undergraduate Research & Creative Activity (URCA) Award
Amount: **\$1,750**
Role: Mentor
- 7. N-95 Surrogate Respirators, Spring 2022**
Grantor: ECU Undergraduate Research & Creative Activity (URCA) Award
Amount: **\$1,217**
Role: Mentor
- 8. Interdisciplinary Analysis of a Next Generation Prosthetic Socket for Lower-Leg Amputees made with a Bio-Resin and Hemp Fiber Composite (Bio-H), Fall 2020**
Grantor: National Institutes of Health (R03)
Amount: **\$499,999**
Role: Co-I
- 9. A Pilot Study to Evaluate the Real-World Applicability and Efficacy of Wearable Sensors in Patients with Severe Allergic Asthma, Fall 2020**
Grantor: NCSU Center for Human Health and the Environment
Amount: **\$25,000**
Role: PI
- 10. Evaluating the Environmental and Social Benefits of Alternative Swine Waste Management: A Demonstration Project, Fall 2020**
Grantor: North Carolina Department of Justice
Amount: **\$180,557**
Role: Co-I
- 11. Environmental Education on Hurricane Preparedness and Response for Community Stakeholders in Eastern NC, Fall 2020**
Grantor: Environmental Protection Agency
Amount: **\$99,999**
Role: Co-I
- 12. AI-powered Precision Agriculture (AIPA) for Horticulture Crops, Summer 2020**
Grantor: National Science Foundation
Amount: **\$499,999**
Role: Co-I
- 13. Determination of End-of-Service Lives of Respirator Cartridges and Filters for Pesticides Used in Agricultural Settings for Different Environmental Conditions, Spring 2020**
Grantor: National Institutes of Health (R03)
Amount: **\$100,000**
Role: PI

Sinan Sousan (Spring 2024)

14. Real-Time Medical Asthma Predictor (RTMAP), Spring 2020

Grantor: Brody Brothers Endowment Fund
Amount: **\$54,670**
Role: PI

15. Developing an E-Cigarette Portable Sensing System (ECPSS) for Detecting Levels of Toxic Airborne Exposure, Spring 2020

Grantor: NCSU Center for Human Health and the Environment
Amount: **\$25,000**
Role: Co-I

16. Determination of End-of-Service Lives of Respirator Cartridges and Filters for Pesticides Used in Agricultural Setting at Different Environmental Conditions, Spring 2019

Grantor: NCSU Center for Human Health and the Environment
Amount: **\$25,000**
Role: PI

17. Outdoor Exposure Alert Monitor, Fall 2019

Grantor: Sustainable Nano-Pyrethroid for Zika Control
Amount: **\$25,000**
Role: Co-I

18. Outdoor Exposure Alert Monitor, Fall 2019

Grantor: ORAU Ralph E. Powe
Amount: **\$10,000**
Role: PI

19. Personal Medical Alert System, Summer 2019

Grantor: North Carolina Biotechnology Center
Amount: **\$25,000**
Role: PI

20. Nanotechnology-enabled innovative respirator filter/cartridges with extended service life indicator, Spring 2019

Grantor: North Carolina Biotechnology Center
Amount: **\$23,969**
Role: PI

21. Exposure Chamber for Testing Lifetime Service for Respirators and Cartridges, Fall 2018

Grantor: UNC-CH NC Occupational Safety and Health Education and Research Center
Amount: **\$23,969**
Role: PI

Conferences- Local/National:

Invited Speaker (total at ECU = 3)

2024

1. Stephanie Richards and **Sinan Sousan**, Novel Compact Wind Tunnel for Assessment of Insecticides in Mosquito Control. April 2024. Blue Economy Pitch Program, Washington, NC.
2. **Sinan Sousan**, T. Renée Anthony, Ralph Altmaier, Jenna Gibbs, Matthew Nonnenmann. Use of prototype side stream filtration system to control dust levels in a commercial swine farrowing building. March 2024. North Carolina Agricultural Health and Safety Symposium, Greensboro, NC.
3. **Sinan Sousan**, The Rise of Real-Time Low-cost Sensors for Air Quality Monitoring, Feb 2024. Fifth Annual Love Data Week 2024. Greenville, NC.

Participated Conferences (total at ECU = 59) (*Student led presentation-senior author, total at ECU = 26)

2024

1. *Gabriela Perez, Emma Piner, **Sinan Sousan**. The Effects of Power Settings and Liquid Flavors on the Gravimetric Filter Correction Factors and Real-Time Measurements. April 2024. ECU Research and Creative Achievement Week. Greenville, NC.
2. *Daniel Walker, Amelia Tart, **Sinan Sousan**. The Effects of Commercial Grade E-Cigarette Chemical Ratios and Nicotine Strength on the Gravimetric Filter Correction Factors and Real-Time Measurements. April 2024. ECU Research and Creative Achievement Week. Greenville, NC.
3. *Michael Brannin, Sarah Fresquez, Colby Sawyer, Ciprian Popoviciu, and **Sinan Sousan**. Spring Evaluation and Calibration of Low-Cost Aerosol Sensors. April 2024. ECU Research and Creative Achievement Week. Greenville, NC.
4. Will Murray, Sinan Sousan, Avian White, Kaya Peyton, Raven Slade, and Stephanie Richards. Development of novel compact wind tunnel for testing efficacy of insecticide formulated products in mosquitoes. April 2023. ECU Research & Creative Achievement Week. Greenville, NC. Greenville, NC.
5. *Gabriela Perez, Emma Piner, **Sinan Sousan**. The Effects of Power Settings and Liquid Flavors on the Gravimetric Filter Correction Factors and Real-Time Measurements. March 2024. Annual TriBeta Research Symposium. Greenville, NC.
6. *Daniel Walker, Amelia Tart, **Sinan Sousan**. The Effects of Commercial Grade E-Cigarette Chemical Ratios and Nicotine Strength on the Gravimetric Filter Correction Factors and Real-Time Measurements. March 2024. Annual TriBeta Research Symposium. Greenville, NC.
7. *Michael Brannin, Sarah Fresquez, Colby Sawyer, Ciprian Popoviciu, and **Sinan Sousan**. Spring Evaluation and Calibration of Low-Cost Aerosol Sensors. March 2024. Annual TriBeta Research Symposium. Greenville, NC.
8. Kaya Peyton, Avian White, **Sinan Sousan**, Will Murray, Stephanie Richards. Evaluation of wind tunnel for exposure of Aedes albopictus and Culex pipiens/quinqnefasciatus mosquitoes to Biomist. March 2024. Emerging Researchers National Conference in STEM, Washington, D.C.
9. Will Murray, **Sinan Sousan**, Avian White, Kaya Peyton, Raven Slade, and Stephanie Richards. Development of novel compact wind tunnel for testing efficacy of insecticide formulated products in mosquitoes. February 2024. Center for Human Health and the Environment 8th Annual Symposium. Raleigh, NC.
10. **Sinan Sousan**, Marina Boatman, Lauren Johansen, Ming Fan and Rachel L Roper, Validation of SARS-CoV-2 detection and air sampling methods inside the Heating, Ventilation, and Air Conditioning

Sinan Sousan (Spring 2024)

(HVAC) duct in student dorms. Feb 2024, Center for Human Health and the Environment 8th Annual Symposium. Raleigh, NC.

11. **Sinan Sousan**, Ronald Mooring, Sarah Fresquez, Yoo Min Park, Vivien Coombs, Nicole Bertges, Luke Thomas, Emily Gold, Anish Gogineni, Alex Tiet, Jack Pender, Eric K. Soule. Use of Real-Time Monitors to Evaluate the Potential Exposure of Secondhand Electronic Cigarette Particulate Matter Inside Vehicles. Feb 2024, Center for Human Health and the Environment 8th Annual Symposium. Raleigh, NC.
12. Eric K. Soule, Jack Pender, **Sinan Sousan**, Heather Tunnell, Luke Thomas, Emily Gold, Alex Tiet, Anish Gogineni, Sarah Fresquez, Ronald Mooring, Vivien Coombs. Chemical depositions associated with electronic cigarette use in vehicles. Feb 2024; Society for Research on Nicotine and Tobacco Annual Meeting, Edinburg, Scotland.

2023

13. Will Murray, Stephanie Richards, **Sinan Sousan**, Avian White, Kaya Peyton, Raven Slade. Compact wind tunnel for testing formulated products against mosquitoes. November 2023. 58th Annual North Carolina Mosquito and Vector Control Association. Carolina Beach, NC.
14. **Sinan Sousan**, Ronald Mooring, Sarah Fresquez, Yoo Min Park, Vivien Coombs, Nicole Bertges, Luke Thomas, Emily Gold, Anish Gogineni, Alex Tiet, Jack Pender, Eric K. Soule. Use of Real-Time Monitors to Evaluate the Potential Exposure of Secondhand Electronic Cigarette Particulate Matter Inside Vehicles. October 2023. Annual Meeting of American Association for Aerosol Research. Portland, OR.
15. *Austin Close, Jane Blackerby, Heather Tunnell, Jack Pender, Eric Soule, and **Sinan Sousan**. Effects of E-Cigarette Liquid Ratios on the Gravimetric Filter Correction Factors and Real-Time Measurements. October 2023. Annual Meeting of American Association for Aerosol Research. Portland, OR.
16. *Will Murray, Jo Anne G. Balanay and **Sinan Sousan**, Student assessment of PM2.5 concentration at ECU Transit bus stops using a low-cost aerosol monitor. October 2023. Annual Meeting of American Association for Aerosol Research. Portland, OR.
17. Eric K. Soule, **Sinan Sousan**, Jack Pender, Emily Gold, Luke Thomas, Anish Gogineni, Alex Tiet, Sarah Fresquez, Ronald Mooring, Vivien Coombs. Secondhand electronic cigarette aerosol in vehicles impacts indoor air quality. October 2023. Annual Meeting of American Association for Aerosol Research. Portland, OR.
18. **Sinan Sousan**, Marina Boatman, Lauren Johansen, Ming Fan and Rachel L Roper, Validation of SARS-CoV-2 detection and air sampling methods inside the Heating, Ventilation, and Air Conditioning (HVAC) duct in student dorms. October 2023. Annual Meeting of American Association for Aerosol Research. Portland, OR.
19. Kaya Peyton, Avian White, **Sinan Sousan**, Will Murray, Stephanie Richards. Evaluation of wind tunnel for exposure of *Aedes albopictus* and *Culex pipiens/quinqüefasciatus* mosquitoes to Biomist®. August 2023. North Carolina GlaxoSmithKline Foundation STEM Research Program Undergraduate Research Poster Symposium, Greenville, NC.
20. *Will Murray, Jo Anne G. Balanay, and **Sinan Sousan**, Student assessment of PM2.5 concentration at ECU Transit bus stops using a low-cost aerosol monitor. April (2023), CHHE Pulmonary Research Interest Group Mini-Symposium. April 2023. Raleigh, NC.
21. *Neha Joseph, Joanna Mathew, Colby Sawyer, Ciprian Popoviciu, and **Sinan Sousan**, Spring evaluation and calibration of low-cost aerosol sensors. April 2023. North Carolina Academy of Science Conference. Greenville, NC.
22. *Will Murray, Jo Anne G. Balanay, and **Sinan Sousan**, Student assessment of PM2.5 concentration at ECU Transit bus stops using a low-cost aerosol monitor. April 2023, North Carolina Academy of Science Conference. Greenville, NC.
23. *Neha Joseph, Joanna Mathew, Colby Sawyer, Ciprian Popoviciu, and **Sinan Sousan**, Spring evaluation and calibration of low-cost aerosol sensors. April 2023, ECU Research and Creative Achievement Week. Greenville, NC.

Sinan Sousan (Spring 2024)

24. *Will Murray, Jo Anne G. Balanay, and **Sinan Sousan**, Student assessment of PM2.5 concentration at ECU Transit bus stops using a low-cost aerosol monitor. April 2023, ECU Research and Creative Achievement Week. Greenville, NC.
25. 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

26. **Sinan Sousan**, Dillon Streuber, Yoo Min Park, Vivien Coombs, Jack Pender, Eric Soule. Evaluation of Low-cost Aerosol and Gas Sensors for Real-time Measurements of Electronic Cigarette Exposure. October 2022; Annual Meeting of American Association for Aerosol Research. Raleigh, NC.
27. *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
28. **Sinan Sousan**, Ming Fan, Kathryn Outlaw, Sydney Williams, and Rachel Roper. SARS-CoV-2 Detection in Air Samples from Inside Heating, Ventilation, and Air Conditioning (HVAC) Systems- COVID Surveillance in Student Dorms. October 2022; Annual Meeting of American Association for Aerosol Research. Raleigh, NC
29. *Omar Chaaban, Jo Anne Balanay, **Sinan Sousan**; Filtration Efficiency of Top 10 Best-Selling Adult Masks Compared to the N95 Respirator. October 2022; Annual Meeting of American Association for Aerosol Research. Raleigh, NC. Presented by Sinan Sousan
30. **Sinan Sousan**, 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. October 2022; Annual Meeting of American Association for Aerosol Research. Raleigh, NC
31. 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. October 2022; Annual Meeting of American Association for Aerosol Research. Raleigh, NC. Presented by Sinan Sousan.
32. R. Roper, **Sinan 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. June 2022; American Society for Microbiology Conference, Washington, DC
33. 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.
34. *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.
35. *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
36. 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.
37. **Sinan Sousan**, 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.

Sinan Sousan (Spring 2024)

38. Tiet, A., Gogineni, A., Gold, E., **Sinan Sousan**, 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.
39. Gogineni, A., Tiet, A., Gold, E., **Sinan Sousan**, 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.
40. Soule, E., **Sinan Sousan**, 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.
41. Soule, E. **Sinan Sousan**, 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.
42. Park, Y.M. **Sinan Sousan**, 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.
43. *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
44. 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.
45. **Sinan Sousan**, 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

46. **Sinan Sousan**, 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.
47. **Sinan Sousan**, 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.
48. Balanay J, **Sinan Sousan**. Mobile App to Assess WBGT-Heat Stress Risk of Outdoor Workers. 2021; Research & Creative Achievement Week, ECU, Virtual.
49. *Streuber D, **Sinan Sousan**, 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

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

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54. *Olegario J, Regmi S, **Sinan Sousan**. Evaluation of Low-Cost Optical Particle Counters for Agricultural Exposure Measurements. 2020; Annual Meeting of American Association for Aerosol Research, Virtual.
55. *Olegario J, Regmi S, **Sinan Sousan**. Evaluation of Low-Cost Optical Particle Counters for Agricultural Exposure Measurements. 2020; MPH Poster Presentation, Virtual.

2019

56. *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.
57. **Sinan Sousan**, 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.
58. Nonnenmann M, Anthony T, **Sinan Sousan**, 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.
59. **Sinan Sousan**. Advancements in Exposure Measurements and Low-cost Sensors in Agriculture. 2019; North Carolina Agromedicine Institute - Agricultural Health and Safety Symposium, Raleigh, NC.

Before ECU

2017

60. Hallett L, **Sinan Sousan**, 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

61. **Sinan Sousan**, 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

62. **Sinan Sousan**, 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

63. **Sinan Sousan**, 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.
64. **Sinan Sousan**, 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.
65. **Sinan Sousan**, 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.

Sinan Sousan (Spring 2024)

2010

66. **Sinan Sousan**, 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.
67. **Sinan Sousan**, 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

68. **Sinan Sousan**, 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.
69. Stanier C, Bender A, Carmichael G, **Sinan Sousan** et al. Understanding Episodes of High Airborne Particulate Matter in the Upper Midwest. 2009; Annual Meeting of American Association for Aerosol Research; Minneapolis, MN.
70. **Sinan Sousan**, 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.

Service

Committee Service

Fall 2023- DPH Personnel Committee
Spring 2021- Graduate Council Member at ECU
Fall 2018- Doctor of Public Health-Environmental and Occupational Health Committee, ECU
Fall 2018- North Carolina Agromedicine Institute Board of Partners
Fall 2018- Spring 2023 Vice-Chairs of Diversity and Inclusion Committee, Brody School of Medicine ECU

Other Institutional Service Activities:

Fall 2021-present: Manage DPH Social Media Accounts (Facebook, Instagram, Twitter, LinkedIn)
Administrator
Fall 2019 – present: Provided Recommendations for Undergraduate and Graduate Student
Fall 2018 – present: Doctorate in Public Health Admissions Reviewer
Fall 2018 – Fall 2020: Master of Science in Environmental Health Admissions Reviewer
Judge Fall 2020: Judged Student Poster Competition at AAAR Conference
Spring 2019 Environmental Health Hiring Committee, ECU

Professional Membership

January 2023- Ongoing: Water Resource Center
January 2022- Ongoing: Center for Human Health and the Environment
January 2022- Ongoing: Center for IoT Engineering and Innovation
Spring 2020- Ongoing: North Carolina Public Health Association
Spring 2019 – Ongoing: International Society for Agricultural Safety and Health (ISASH)
Fall 2008 – Ongoing: American Association for Aerosol Research (AAAR)

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Service to Profession

- JOEH Journal of Occupational and Environmental Hygiene Reviewer Board
- Guest Editor of a Special Issue of the Journal Atmosphere
- MDPI Journal of Sensors Reviewer Board

Journal manuscripts reviewed (2016-2024):

| Journal | No. of Reviews |
|---|-----------------------|
| ○ Aerosol and Air Quality Research | 19 |
| ○ Journal of Occupational & Environmental Hygiene | 14 |
| ○ MDPI Sensors | 9 |
| ○ Aerosol Science & Technology | 8 |
| ○ Applied Sciences | 6 |
| ○ International Journal of Environmental Research and Public Health | 3 |
| ○ International Journal of Mining Science and Technology | 3 |
| ○ Remote Sensing | 2 |
| ○ Environmental Science & Technology Letters | 2 |
| ○ Tobacco Prevention and Cessation | 2 |
| ○ Annals of Occupational Hygiene | 2 |
| ○ Occupational and Environmental Hygiene | 2 |
| ○ PLOS ONE | 3 |
| ○ Environmental Science & Technology - Air | 2 |
| ○ Atmospheric Environment | 1 |
| ○ Sustainable Cities and Society | 1 |
| ○ Environmental Engineering | 1 |
| ○ Science of the Total Environment | 1 |
| ○ Environmental Research | 1 |
| ○ Aerosol Science | 1 |
| ○ Environmental Science & Technology | 1 |
| ○ Atmosphere | 1 |
| ○ Environmental Management | 1 |

Recognitions and Media Coverage

1. I was mentioned and quoted in Dr. Jo Anne Balanay's College of Health and Human Performance News and Events: Balanay furthering options for heat stress tools on Feb 28, 2024:
<https://hhp.ecu.edu/hhp-news/2024/02/28/balanay-furthering-options-for-heat-stress-tools/>
2. My paper was mentioned in the Provost First Monday in March 2024:
<https://new.express.adobe.com/webpage/tmYdE5Dw4QHKT>
3. My paper was mentioned in Global Virus Network in Feb 2024
<https://mailchi.mp/gvn.org/gvn-weekly-guide-to-virus-news-and-publications-20240220?e=815c55f89f>
4. My paper was mentioned in the Provost First Monday in Sep 2023:

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<https://new.express.adobe.com/webpage/Si5EWJPUQXnTj>

5. I was mentioned in Dr. Eric Soule's College of Health and Human Performance News and Events: Soule: Huge amount of student involvement in published research on Aug 21, 2023:
<https://hhp.ecu.edu/hhp-news/2023/08/21/soule-huge-amount-of-student-involvement-in-published-research/>
6. Environmental Evaluation and Calibration of Low-Cost Aerosol Sensors:
Two of my Honors students were awarded the Undergraduate Research and Creative Activity Award. The research aims to evaluate a low-cost air quality monitor in environmental settings compared to a reference instrument. The award was highlighted in the Office of Faculty and Leadership Development Newsletter Q4-2022:
<https://express.adobe.com/page/7Z7y1cEgJxXza/?fbclid=IwAR2zeNwaY5S7Iz6hUAeMrfdeiH955rBKqOTI XnvISorKZE36Mmv0ygHjrKc>
7. The effectiveness of the Best-Selling Respirators and Masks on Amazon.com
A paper titled "Assessment of best-selling respirators and masks: Do we have acceptable respiratory protection for the next pandemic?" was published in the American Journal of Infection Control. This work was performed in collaboration with Dr. Jo Anne Balanay (Environmental Health Sciences Program) and ECU Public Health, and Honors College graduate Omar Chaaban (lead author). The work evaluates the ten best-selling respirators by the largest online retailer, Amazon.com. The paper introduces grading factors that could interest buyers and influence their decision to purchase respirators, including protection, comfort, and affordability. The following is a list of media coverage:
 - My paper was mentioned in First Monday: An update from the Provost (October 2022):
<https://express.adobe.com/page/l3GnO0jMfctx3/>
 - We had an audio interview with Talk Like a Pirate ECU program and the podcast was made available in season 3, Episode 1: Best Masks for a Pandemic (September 12, 2022): <https://news.ecu.edu/talk-like-a-pirate/>
 - The paper was covered by ECU news: (September 7, 2022): <https://news.ecu.edu/2022/09/07/mask-breathing-easy/>
8. COVID-19 Airborne Detection Research:
During Spring 2021, my interdisciplinary project with Dr. Rachel Roper from the department of Microbiology & Immunology was published in the American Journal of Infection Control. Our project was the first to show the possibility of SARS-COV-2 detection by sampling from the HVAC system inside student dorms. The publication was featured in several local and international media outlets. Interviews were conducted and broadcasted over television and radio media outlets. In addition to our very own ECU news outlet. The following is a list of media coverage:
 - The Air Conditioning Heating and Refrigeration (ACHR) News (February 26, 2022)
 - <https://www.achrnews.com/articles/146213-university-study-shows-coronavirus-can-be-detected-in-hvac-systems>
 - The East Carolinian news (February 22, 2022)
http://www.piratemedial.com/theeastcarolinian/article_33442f94-9456-11ec-9e94-57ea37e4a5f0.html
 - PBSNC.org channel (February 11, 2022): https://www.pbsnc.org/blogs/science/hvac-systems-could-be-the-future-of-detecting-covid19-indoors/?utm_source=wordfly&utm_medium=email&utm_campaign=SciNC_Feb18_2022&utm_content=Blog%3AHVAC%26COVID_version_A&sourceNumber=
 - Publicradioeast.org Public Radio East (November 12, 2021): <https://www.publicradioeast.org/post/ecu-researchers-discover-new-way-detect-coronavirus-through-ventilation-systems>

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- PHL17 Philadelphia, Pennsylvania news. (November 11, 2021): <https://phl17.com/national-news/online-originals-ecu-researchers-discover-new-way-to-detect-coronavirus-through-building-ventilation-systems/>
 - WRIC 8 local news (November 10, 2021): <https://www.wric.com/health/coronavirus/researchers-discover-new-way-to-detect-coronavirus-through-building-ventilation-systems/>
 - Wavy.com news (November 10, 2021): <https://www.wavy.com/news/north-carolina/east-carolina-university-researchers-discover-new-way-to-detect-coronavirus-through-building-ventilation-systems/>
 - ScienceDaily national news website (November 10, 2021): <https://www.sciencedaily.com/releases/2021/11/211110131659.htm>
 - The Daily Reflector local news website (November 10, 2021): https://www.reflector.com/news/local/breath-of-fresh-air-ecu-research-finds-way-to-detect-covid-19-in-ventilation-systems/article_5190cf2a-b640-57e4-942b-5019fe9efe03.html
 - Eurekalert.org website operated by the American Association for the Advancement of Science (November 10, 2021): <https://www.eurekalert.org/news-releases/934450>
 - Scienmag website located in the United Kingdom (November 10, 2021): <https://scienmag.com/airborne-detection/>
 - ECU News (November 9, 2021): <https://news.ecu.edu/2021/11/09/airborne-detection/>
 - WNCT 9 local news (November 9, 2021): <https://www.wnct.com/health/coronavirus/ecu-researchers-discover-new-way-to-detect-coronavirus-through-building-ventilation-systems/>
 - WITN local news (November 9, 2021): <https://www.witn.com/2021/11/10/ecu-researchers-discover-new-way-detect-coronavirus-through-building-ventilation-systems/>
 - WUNC 91.5 (November 1, 2021): <https://www.wunc.org/science-technology/2021-11-01/testing-covid-19-hvac-future-surveillance-testing-east-carolina-ecu>
 - Blue Ridge Public Radio (November 1, 2021): <https://www.bpr.org/post/testing-covid-19-hvac-could-be-future-surveillance-testing#stream/0>
 - WCNC Charlotte local news (October 28, 2021): <https://www.wcnc.com/article/news/health/coronavirus/ecu-researchers-hvac-systems-detect-presence-covid-dorms/275-ed7c8239-0d53-4a48-9076-37ecff0c9747>
 - WRAL local news (October 27, 2021): https://www.wral.com/new-research-could-help-detect-covid-19-in-closed-indoor-settings/19948005/?ref_id=19947893
9. E-Cigarette Exposure (September 17, 2020):
In 2020, our NIH R03 proposal was funded with the objective of measuring secondhand and thirdhand electronic cigarettes exposure inside vehicles. The proposal was covered by ECU news: <https://news.ecu.edu/2020/09/17/e-cigarette-exposure/>
10. N95 Surrogate Research (September 03, 2020):
In 2020, ECU funded several COVID-19 projects through the CARES Act. My project was one of the funded projects with the objective of testing the efficacy of respirators and filters used in the market for respiratory protection. The project was featured by ECU news: <https://news.ecu.edu/2020/09/03/funding-covid-19-research/>