

Lupita D. Montoya

I. Personal Information

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II. Education

B.S. Engineering (Applied Mechanics), California State University at Northridge, 1989

M.S. Mechanical Engineering (Thermosciences), Stanford University, 1991 (Advisor: Godfrey Mungal)

Ph.D. Civil and Environmental Engineering, Stanford University, 1999 (Advisor: Lynn Hildemann)

Post Doctorate: State of New York University at Albany, School of Public Health, Environmental Health & Toxicology, 1998-2000 (Advisor: David O. Carpenter)

Harvard School of Public Health, Environmental Science & Engineering Program, 2000-2003 (Advisors: Petros Koutrakis and Joseph Brain)

III. Academic and Professional Background

Research Associate Civil, Environmental and Architectural Engineering, University of Colorado, Boulder, 2018-present

Assistant Professor Civil, Environmental and Architectural Engineering, University of Colorado, Boulder, 2010-2018

Affiliate Faculty Mortenson Center in Engineering for Developing Communities, University of Colorado, Boulder, 2010-Present

Affiliate Faculty Environmental and Occupational Health Department, Colorado School of Public Health, 2010-Present

Assistant Professor Mechanical, Aerospace and Nuclear Engineering, Rensselaer Polytechnic Institute, 2008-2009

Affiliate Faculty Center for Architecture Science and Ecology, Rensselaer Polytechnic Institute, 2007-2012

IV. Publications

Peer reviewed: Accepted, in-press, published ([#]Corresponding author; ⁺ postdoc, ^{*}graduate student, ^{**}undergraduate student)

1. Li N., Champion W.M.*, Imam J.**, Sidhu D.**, Salazar J.R.*, Majestic B.J., Montoya L.D.[#] (2018). "Evaluation of cellular effects of fine particulate matter from combustion of solid fuels used for indoor heating on the Navajo Nation using a stratified oxidative stress response model", *Atmospheric Environment*, 182:87-96. Doi: 10.1016/j.atmosenv.2018.03.031
2. Jorquera H.[#], Barraza F.*, Heyer J., Valdivia G., Schiaccappase L.N., Montoya L.D. (2018). "Indoor PM_{2.5} in an urban zone with heavy wood smoke pollution: the case of Temuco, Chile", *Environmental Pollution*, 236C: 477-487. <https://doi.org/10.1016/j.envpol.2018.01.085>
3. Heichelheim E.W.*, Montoya L.D., Hubler H.[#] (2017). "Aerosol Generation in Compressive Concrete Fragmentation", *Construction and Building Materials*, 155: 1039-1049.
4. Bielefeldt A.R.[#], Montoya L., Rulifson G. (2017). "Methods Matter: Contrasting Undergraduate Research Experience Outcomes based on Surveys and Interview Methods", Proceedings of *Frontiers in Education*. (10.1109/FIE.2017.8190647).
5. Champion W.M.*, Connors L.**, Montoya L.D.[#] (2017). "Emission Factors of PM_{2.5}, Organic and Elemental Carbon, CO, and CO₂ for Four Solid Fuels Commonly Used in the Navajo Nation for Residential Heating", *Journal of the Air and Waste Management Association*, 67(9): 1020-1035. <http://dx.doi.org/10.1080/10962247.2017.1334717>
6. Montoya L.D.[#], Mauney D.*, Srubar W. (2017). "Investigation of efficient air pollutant removal using active flow control", *Building and Environment*, 122:134-144. (doi: 10.1016/j.buildenv.2017.06.012)
7. Abarr M.*, Mauney D.*, Hertzberg J. and Montoya L.D.[#] (2017). "Characterization of a Commercial Synthetic Jet Actuator for Air Quality Applications", *Journal of Engineering Fluids*, 139(7):071103-071103-7. (doi:10.1115/1.4035948)
8. Champion W.M.*, Charley P.H., Stewart K., Klein B., Solomon P.A., Montoya L.D.[#] (2017). "Perception, culture, and science: A framework to identify in-home heating options to improve indoor air quality in the Navajo Nation", *Science of the Total*

- Environment*, 580:297-306.
<http://dx.doi.org.colorado.idm.oclc.org/10.1016/j.scitotenv.2016.11.053>
9. Abarr M.*[#], Geels B., J. Hertzberg, Montoya L.D. (2017). “Pumped thermal energy storage and bottoming system part A: Concept and model”, *Energy*, 120: 320-331.
<http://dx.doi.org.colorado.idm.oclc.org/10.1016/j.energy.2016.11.089>
 10. Abarr M.*[#], J. Hertzberg, Montoya L.D. (2017). “Pumped Thermal Energy Storage and Bottoming System Part B: Sensitivity analysis and baseline performance”, *Energy*, 119: 601-611.
<http://dx.doi.org.colorado.idm.oclc.org/10.1016/j.energy.2016.11.028>
 11. Wang X.R.*[#], Zhao Y., Ding G.J., Montoya L.D., (2016). " Effects of growth regulators and fertilizers on Flowering and Nutrient element of *Jatropha curcas L.*", *Bangladesh Journal of Botany*, 45(4): 873-880.
 12. Barraza F.* , Jorquera H.*[#] , Heyer J., Palma W., Edwards A.M., Muñoz M., Valdivia G., Montoya L.D (2016). “Short-term dynamics of indoor and outdoor endotoxin exposure: Case of Santiago, Chile, 2012”, *Environment International*, 92-93:97-105.
<http://dx.doi.org.colorado.idm.oclc.org/10.1016/j.envint.2016.03.039>
 13. Ward, B.J.* , Yacob T.W., Montoya L.D.*[#] (2014). “Evaluation of Solid Fuel Char Briquettes from Human Waste”, *Environmental Science and Technology*, 48 (16):9852–9858.
 14. Barraza F.* , Jorquera H.*[#] , Valdivia G., Montoya L.D. (2014). “Indoor PM2.5 in Santiago, Chile, spring 2012: Source apportionment and outdoor contributions”, *Atmospheric Environment*, 94:692-700.
<http://dx.doi.org/10.1016/j.atmosenv.2014.06.014>
 15. Escobedo L. E.** , Champion W.* , Li N., Montoya L. D.*[#] (2014). “Indoor Air Quality in Latino Homes in Boulder, Colorado”, *Atmospheric Environment*, 92:69-75.
 16. McQuillan B.* , Hertzberg J. and Montoya L.D.*[#] (2014). “Flow Visualization Study of Synthetic Flow Control in the Indoor Environment”, *Building and Environment*, 73:239-248.
 17. Wei Z.* , Chen L.* , Thompson D. and Montoya L.D.*[#] (2014). “Effect of Size on In Vitro Cytotoxicity of Titania and Alumina Nanoparticles”, *Journal of Experimental Nanoscience*, 9(6):625-638. doi:10.1080/17458080.2012.683534
 18. Lennox E.* , Kreisberg N. and Montoya L.D.*[#] (2013). “Design and Characterization of a New Area Aerosol Sampler Based on Microtrap Collection Technology”, *Aerosol Science and Technology*, 47(6):626-633. doi: 1080/02786826.2013.778385
 19. Aydogan A.* and Montoya L.D.*[#] (2011). “Formaldehyde Removal by Common Indoor Plant Species and Various Growing Media”, *Atmospheric Environment* 45:2675-2682.

20. Wei Z.*, Rosario R.** and Montoya L.D. # (2010). “Collection efficiency of a midjet impinger for nanoparticles in the range of 3-100 nm”, *Atmospheric Environment*, 44:872-876.
21. Montoya L.D. #, Jackson J.L.*, and Amitay M. (2010). “Control of Aerosol Dispersion and Removal in a Room Using Synthetic Jet Actuators”, *Building and Environment*, 45: 165–175.
22. Fernheimer J.#, Nieuwma D., Chi L., Montoya L., Kujala T.*, La Padula A.** (2009). “Collaborative Convergences in Research and Pedagogy: An Interdisciplinary Approach to Teaching Writing with Wikis”, *Computers and Composition Online*, June.
23. Surdu S.*, Montoya L.D., Tarbell A. and Carpenter D.O. # (2006). “Childhood Asthma and Indoor Allergens in Native Americans in New York.” *Environmental Health: A Global Access Science Source*, 5:22.
24. Montoya L.D. # and Hildemann L.M. (2005). “Size Distributions and Height Variations of Airborne Particulate Matter and Cat Allergen Immediately Following Dust-disturbing Activities”, *Journal of Aerosol Science*, 36:735-749.
25. Montoya L.D. #, Lawrence J., Gazula K., Sarnat J., Godlesk J. and Koutrakis P. (2004). “Continuous Measurements of Ambient Particle Deposition in Human Subjects”, *Aerosol Science and Technology*, 38:980-990.
26. Montoya L.D. # and Hildemann L.M. (2001). “Evolution of the Mass Distributions of Resuspended Cat Allergen (*Fel d 1*) Indoors Following a Disturbance”, *Atmospheric Environment*, 35(5):859-866.
27. Montoya L.D. and Hildemann L.M. # (1997). “Size-Resolved Quantification of Non-Viable Indoor Aeroallergens: A Review”, *Journal of Environmental Engineering*, 123(10):965-973.

Book Chapters

1. Jorquera H., Montoya L.D. and Rojas N. (2018) Urban Air Pollution, in *Urban Climate in Latin American Cities*, edited by Cristian Henriquez and Hugo Romero, in press, Springer Nature. DOI: 10.1007/978-3-319-97013-4.
2. Kesavan J., Montoya L.D., Laube B.L. (2016). Aerosol Physics for Bioaerosols. In H. Salem and S.A. Katz (Eds.) *Aerobiology: The Toxicology of Airborne Pathogens and Toxins*, (pp. 345-370). Cambridge UK, The Royal Society of Chemistry. (Peer reviewed).
3. Paths to Discovery: Chicanas in Mathematics, Science and Engineering, (2008). Second and updated edition of book originally titled *Flor y Ciencia: Chicanas in Mathematics, Science and Engineering*. New edition sponsored by the Chicano Research Center at the

University of California, Los Angeles. Book promotes STEM careers in academia for Latina students from middle to graduate school levels.

4. Flor y Ciencia: Chicanas in Mathematics, Science and Engineering, (2006). Edited by Dr. Norma Cantú and published by the American Association for the Advancement of Science. Contributing author to edited compilation. This book seeks to promote STEM careers in academia among Chicana and Latina students. Target audiences are female students from middle school to college.
5. Ay, Mija! Why do you want to be an engineer? (2005). Edited and published by Edna Campos Gravenhorst. Featured engineer and contributor to edited compilation. This book promotes STEM careers among children, particularly, girls. Target audience is K-8 Chicana and Latina students.

In-revision or Submitted (#Corresponding author; *graduate student, **undergraduate student)

1. Aguilar-Dodier L.C. *, Castillo J.E., Quintana P.J.E., Montoya L.D., Rodríguez-Ventura J.G., “Spatial and temporal evaluation of H₂S, SO₂ and NH₃ concentrations near the geothermal field at Cerro Prieto, Mexico” submitted to *Science of the Total Environment*.
2. Lamplugh A. *, Harries M., Xiang F.**, Trinh J.**, Hecobian A., Montoya L.D. # “VOC Exposure and Occupational Health Outcomes in Colorado Nail Salons”, under revision at *Environmental Pollution*.
3. Montoya L.D. #, Gadde H.K. *, Champion W.M. *, Li N., Hubler M., “Inflammatory Effects of Aerosols Generated from Rapid Concrete Failure”, under revision at *Atmospheric Environment*.

Conference Proceedings (peer reviewed) (#Corresponding author; +postdoc, *graduate student, **undergraduate student)

1. Lamplugh A.*#, Montoya L.D., “Volatile Organic Compound Exposure in Colorado Nail Salons”, *Indoor Air 2018 International Conference*, Philadelphia PA, July 23, 2018.
2. Montoya L.D. #, Champion W.M., “A Culturally-Appropriate Household Heating Energy Transition for the Navajo Nation”, *Indoor Air 2018 International Conference*, Philadelphia PA, July 25, 2018.
3. Montoya L.D., Champion W.M.#, “Emission Factors of Fine Particulate Matter, Organic and Elemental Carbon, Carbon Monoxide and Carbon Dioxide from Briquettes Made from Human Waste”, *Indoor Air 2018 International Conference*, Philadelphia PA, July 25, 2018.

4. Price M.** , Champion W.* , Ward B., Cartledge B.* , Majestic B.J. # , Montoya L. “Trace metal emissions from the combustion of fecal char briquettes and a comparison to other solid fuels”, Abstract of Papers of the *American Chemical Society*, Amer. Chemical Soc. 249: 1 page. 22 Mar **2015**.
5. Champion W.M.*# , Barraza F.* , Jorquera J., Montoya L.D., “Comparison of Indoor and Outdoor Air Quality in Latino Communities in Peru, Chile, and USA”, *Healthy Buildings 2015 America*, Boulder CO, July 20, **2015**.
6. Montoya L.D.# , Wrobetz A.* , Matteazzi M.** , “Formaldehyde Sorption to Porous Media for Air Quality Applications”, *Healthy Buildings 2015 America*, Boulder CO, July 20, **2015**.
7. Mauney D.* , Suwongso C.** , Abarr M.* , Srubar W.W., Montoya L.D.# , “Experimental Study of Active Flows and Passive Materials for Indoor Air Quality Control”, *Healthy Buildings 2015 America*, Boulder CO, July 20, **2015**.
8. Aydogan Akseli A.# , Dyson A., Montoya L.D., “From a Lab Scale to the Building Scale: Formaldehyde Removal by a Plant Module”, *Healthy Buildings 2015 America*, Boulder CO, July 21, **2015**.
9. Montoya L.D.# , Sandekian R. and Knight D. (**2013**). “Integrating Engineering for Developing Communities into Engineering Education: A Case Study”, *Proceedings of the 2013 ASEE Annual Conference and Exposition*.
10. Aydogan A.* , and Montoya L.D.# (**2011**). “Formaldehyde Removal by Four Indoor Plant Species” *Proceedings of the Indoor Air 2011 International Congress*.
11. Gomez O.M.* , Handorean A., Brandt E.L.** (**2011**). Lopez A.A.** , Hernandez M. and Montoya L.D.# , “Indoor Air Pollution in an Indigenous Highlands Community in Peru”, *Proceedings of the Indoor Air 2011 International Congress*.
12. Montoya L.D.# and Harman U. (**2009**). “Sustainable Visions and Affordable Ecological Home for the Andes in Peru”, *Proceedings of the 2009 National Collegiate Inventors and Innovators Alliance (NCIIA) Annual Conference*.
13. Montoya L.D.# , Ziegler J.* , Auquilla E.** and Amitay M. (**2008**). “Synthetic-jet-based Active Control of Particle Dispersion in a Room”, *Proceedings of the Indoor Air 2008 Congress*.
14. Montoya L.D.# and Martinez C. (**2008**). “Paths to Discovery: Chicanas in Mathematics, Science, and Engineering”, *Proceedings of the 2008 ASEE Annual Conference and Exposition*.
15. Montoya L.D.# and Moore C. (**2007**). “Use of a Course Management System in Environmental Engineering for the Education of the Global Citizen”, *Proceedings of the 2007 ASEE Annual Conference and Exposition*.

16. Montoya L.D. # and Komisar S. (2006). “Introduction to Engineering Design Through Environmental Engineering Projects”, *Proceedings of the 2006 ASEE Annual Conference and Exposition*.

Conference Abstracts (peer reviewed) (#Corresponding author; *graduate student, **undergraduate student)

1. Jorquera H., Montoya L.D.#, Rojas N., “Air Pollution in Latin American Cities”, *International Aerosols Conference*, St. Louis MO, September 7, **2018**.
2. Montoya L.D.#, Gadde H. Champion W., Li N., Hubler M., “Inflammatory Effects of Fine Aerosols Generated from Rapid Concrete Failure”, *International Aerosols Conference*, St. Louis MO, September 6, **2018**.
3. Montoya L.D.#, Champion W., Solomon P.A., Stewart K., Charley P., “Indoor Aerosols from Home Heating in the Navajo Nation: Sources, Health Effects, and Control”, *International Aerosols Conference*, St. Louis MO, September 3, **2018**.
4. Jorquera H.#, Montoya L.D., Barraza F., “Indoor PM2.5 in an Urban Zone with Heavy Wood Smoke Pollution: The Case of Temuco, Chile”, *International Aerosols Conference*, St. Louis MO, September 3, **2018**.
5. Lamplugh A.##, Montoya L.D., “Volatile Organic Compound Exposure in Colorado Nail Salons”, Joint Meeting of the *International Society of Exposure Science and the International Society for Environmental Epidemiology (ISES-ISEE)*, Ottawa Canada, August 27, **2018**.
6. Montoya L.D.#, Champion W. “A Culturally-Appropriate Household Heating Energy Transition for the Navajo Nation”, *Indoor Air 2018 International Conference*, Philadelphia PA, July 25, **2018**.
7. Montoya L.#, Champion W. “Emission Factors of Fine Particulate Matter, Organic and Elemental Carbon, Carbon Monoxide and Carbon Dioxide from Briquettes Made from Human Waste”, *Indoor Air 2018 International Conference*, Philadelphia PA, July 25, **2018**.
8. Lamplugh A.##, Montoya L.D. “Volatile Organic Compound Exposure in Colorado Nail Salons”, *Indoor Air 2018 International Conference*, Philadelphia PA, July 23, **2018**.
9. Champion W.*, Connors L.**, Montoya L.D.#, “Emission Factors of Fine Particulate Matter, Organic and Elemental Carbon, Carbon Monoxide, and Carbon Dioxide for Solid Fuels Commonly Used for Heating Navajo Homes”, *Annual Conference of the American Association for Aerosol Research*, Raleigh NC, October 17, **2017**.
10. Lamplugh A.##, Xiang F.**, Trinh J.**, Ly E.**, Montoya L.D., “Investigation of VOC Exposure from Nail Salon Products”, *Annual Conference of the American Association for Aerosol Research*, Raleigh NC, October 18, **2017**.

11. Champion W.*, Montoya L.D.# “PM_{2.5}, OC, EC, CO and CO₂ Emissions from Briquettes Made with Human Waste”, *Annual Conference of the American Association for Aerosol Research*, Raleigh NC, October 17, **2017**.
12. Montoya L.D.#, Champion W.M.*, “Emission factors of fine particulate matter, organic and elemental carbon, carbon monoxide, and carbon dioxide for four solid fuels commonly used in residential heating by the Navajo Nation”, *First Annual Native Health Research Training Conference*, Denver CO, September 18, **2017**.
13. Montoya L.D.#, Champion W.M.*, Charley P., Stewart K., “A Navajo Framework: integration of perception, culture, and science to identify in-home heating options to improve indoor air quality in the Navajo Nation”, *First Annual Native Health Research Training Conference*, Denver CO, September 19, **2017**.
14. Badonie M.I.#**, Lee F.J.**, Roy J.**, Randall C.**, Montoya L.D., "Reclaiming Navajo Burn Practices", *First Annual Native Health Research Training Conference, Denver CO*, September 18, **2017**.
15. Champion W.M.*, Connors L.**, Montoya L.#, “Characterization of Emissions from the Combustion of Solid Fuels Used for Heating in the Navajo Nation”, *Annual Conference of the American Association for Aerosol Research*, Portland OR, October 17-21, **2016**.
16. Heichelheim E.*, Hubler M., Montoya L.#, “Aerosol Generation from Rapid Concrete Failure”, *Annual Conference of the American Association for Aerosol Research*, Portland OR, October 17-21, **2016**.
17. Lamplugh A.*, Ravichandran S.*, Miller S., Montoya L.#, “Evaluation of Low-Cost Materials for VOC Removal in Nail Salons”, *Annual Conference of the American Association for Aerosol Research*, Portland OR, October 17-21, **2016**.
18. Zurita Frias R.M.#, Rodriguez Ventura J.G., Castillo Quiñonez J.E., Toledo Arangure D.S.*, Montoya L.D. “Evaluation and Characterization of PM_{2.5} in the East Zone of Tijuana B.C.N., Mexico”, *XV International Congress and XXI National Congress of Environmental Sciences*, Oaxaca, Mexico, June 15-17, **2016**.
19. Price M.**, Majestic B.#, Champion W.*, Schenandoah J.**, Montoya L.D., Gordon J.*, Cartledge B.*, Hannigan M., “Crustal and Toxic Metal Emissions from Fuel Sources Used on the Navajo Nation”, *Annual Conference of the American Association for Aerosol Research*, October 13, **2015**.
20. Montoya L.D.#, Wrobetz A.*, Aydogan Akseli A., “Physical and Biological Characterization of Porous Media for Indoor Air Quality Control”, *Annual Conference of the American Association for Aerosol Research*, October 13, **2015**.
21. Mauney D.*, Suwongso C.**, Srubar W. and Montoya L.D.#, “Experimental Study of Active Flow and Photocatalytic Materials for Indoor Air Quality Applications”, *Annual Conference of the American Association for Aerosol Research*, October 14, **2015**.

22. Champion W.*#, Charley P., Klein B., Denny A.*, McKenzie J.*, Stewart K., Solomon P.A., Montoya L.D., “Perception, Cultural, and Technical Assessment of Heating Alternatives to Improve Indoor Air Quality on the Navajo Nation”, *Annual Conference of the American Association for Aerosol Research*, October 15, **2015**.
23. Abarr M.*, Mauney D.*, Hertzberg J. and Montoya L.D.#, “Characterization of a Commercial Synthetic Jet Actuator for Air Quality Applications”, *Annual Conference of the American Association for Aerosol Research*, October 13, **2015**.
24. Champion W.M.*#, Barraza F.*, Jorquera J., Montoya L.D., “Comparison Of Indoor And Outdoor Air Quality In Latino Communities In Peru, Chile, And USA”, *Healthy Buildings USA Conference*, Boulder CO, July 20, **2015**.
25. Montoya L.D.#, Wrobetz A.*, Matteazzi M.**, “Formaldehyde Sorption to Porous Media for Air Quality Applications”, *Healthy Buildings USA Conference*, Boulder CO, July 20, **2015**.
26. Aydogan Akseli A., Dyson A., Montoya L.D., “From a Lab Scale to the Building Scale: Formaldehyde Removal by a Plant Module”, *Healthy Buildings USA Conference*, Boulder CO, July 21, **2015**.
27. Montoya L.D., “Guided Note-taking and Active Learning: Implementation in Two Engineering Courses”, *ASEE Rocky Mountain 2015 Conference*, Denver CO, April 10, **2015**.
28. Jorquera H.#, Barraza F.*, Valdivia G., Montoya L. D., “Indoor and Outdoor Endotoxins at Santiago, Chile: Spring 2012 Results”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
29. Montoya L. D.#, Barraza F.*, Jorquera H., “Indoor PM2.5 at Santiago, Chile: Source Apportionment and Outdoor Contributions”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
30. Champion W.*, Klein B., Charley P., Denny A.*, McKenzie J.*, Stewart K., Solomon P.A., Montoya L.D.#, “Assessment of Alternatives to Indoor Stove Use on the Navajo Nation”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
31. Champion W.*#, Barraza F.*, Jorquera H., Montoya L. D., “Comparison of Indoor and Outdoor Air Quality in Latino Communities in Peru, Chile and USA”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
32. Escobedo L.E.**, Champion W.*, Li N. and Montoya L.D.#, “Indoor Air Quality in Latino Homes in Boulder Colorado”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.

33. Ward B.J.*#, Yacob T.W., Linden K. and Montoya L.D., “Fecal Sludge Treatment and Valorization: Evaluation of Char Briquettes from Human Feces as a Solid Fuel”, *2014 Water and Health Conference*, University of North Carolina, October 13-17, **2014**.
34. Champion, W.M.*#, Klein, B., Charley, P., Denny, A.*, McKenzie, J.*, Stewart K., Solomon P.A., and Montoya, L.D., “Assessment of Alternatives to Indoor Stove Use on the Navajo Nation”, *Specialty AWMA Conference: Strategies to Reduce Residential Wood Smoke*, Missoula MT, August 7-8, **2014**.
35. James C.**, Champion W.*, Montoya L.D.#, Garcia-Fine S.**, Ward B.J., “Composition of Emissions from the Combustion of Solid Fuels Used on the Navajo Nation”, *Specialty AWMA Conference: Strategies to Reduce Residential Wood Smoke*, Missoula MT, August 7-8, **2014**.
36. Wrobetz A.*, Matteazzi M.**, Bielefeldt A.#, Montoya L.D., “Degradation of formaldehyde sorbed onto porous hydroponic growing media” *Annual Rocky Mountain Section of the American Water Works Association Conference*, Fort Collins CO, May 22, **2014**.
37. Champion W.*, Barraza F.*, Jorquera H., Montoya L. D.#, “Comparison of Indoor/Outdoor Air Quality in Peru, Chile and USA”. *Workshop on Air Quality and Oil and Gas Development in the Rocky Mountain Region*, Boulder, CO on October 21–22, **2013**.
38. Escobedo L.E.**, Li N. and Montoya L.D.#, “Biological Components in PM2.5 in Boulder, Colorado Latino Homes”, *Annual Conference of the American Association for Aerosol Research*, Portland OR, September 30 – October 4, **2013**.
39. McQuillan B.*, Hertzberg J. and Montoya L.D.#, “On the Development of Indoor Air Quality Control Using Synthetic Jets”, *Annual Conference of the American Association for Aerosol Research*, Portland OR, September 30 – October 4, **2013**.
40. Lennox E.R.*, Kreisberg N.M., Montoya L.D.#, “Design and Characterization of a New Coarse Particle Collector Based on Microtrap Impactor Technology”, *Annual Conference of the American Association for Aerosol Research*, Portland OR, September 30 – October 4, **2013**.
41. Escobedo L.E.** and Montoya L.D.#, “Indoor and Outdoor Air Quality in a Latino Community in Boulder, Colorado”, *2013 Conference of the Society for the Advancement of Chicanos and Native Americans in Sciences*, San Antonio, TX, October **2013**.
42. Montoya L.D.# and Escobedo L.E.**, “Indoor Air Quality in Latino Homes in Boulder, Colorado”, *2013 Association of Environmental Engineering and Science Professors Education and Research Conference*, Golden CO, July 14-16, **2013**.
43. Teske S.S., Detweiler C. and Montoya L.D.#, “Metal Oxide Nanoparticles Induce Nitric Oxide Production in Cell Culture Macrophages”, *2013 Association of Environmental*

Engineering and Science Professors Education and Research Conference, Golden CO, July 14-16, 2013.

44. Ward B.J.* and Montoya L.D.#, “Investigating Energy Sources from Solar Biochar Toilet”, *2013 Association of Environmental Engineering and Science Professors Education and Research Conference, Golden CO, July 14-16, 2013.*
45. Montoya L.D.#, Gomez O.M.*, “Combustion and Biogenic Aerosols and Health Outcomes in Developing Communities”, *2011 Annual Conference of the American Association for Aerosol Research, Orlando FL, October 3-7, 2011.*
46. Wei Z. *, and Montoya L.D.#, “Effects of Particle Size and Surface Area on the Cytotoxicity of Alumina and Titania Nanoparticles”, *2011 Annual Conference of the American Association for Aerosol Research, Orlando FL, October 3-7, 2011.*
47. Montoya L.D., Sandekian R.#, “Who Determines Intellectual Merit?”, *Pedagogy of Privilege Conference, Denver CO, August 15-16, 2011.*
48. Montoya L.D.# and Harman U.* “Integrating Research, Education and Entrepreneurship in a Rural Peruvian Community”, *2011 Association of Environmental Engineering and Science Professors Education and Research Conference, Tampa FL, July 11-12, 2011.*
49. Wei Z. *, and Montoya L.D.#, “Cytotoxicity and Immune Effects of Metal Oxide Nanoparticles”, *2010 Annual Conference of the American Association for Aerosol Research, Portland OR, October 25-29, 2010.*
50. Montoya L.D.#, Gomez O.M.*, Handorean A., Hernandez M., and Canales R.A. “Profiles of Indoor Bioaerosols and Airborne Combustion Products Typical in Rural Peruvian Andean Communities”, *2010 Annual Conference of the American Association for Aerosol Research, Portland OR, October 25-29, 2010.*
51. Montoya L.D.#, Gomez O.M.*, Harman U.*, Canales R.A. “Indoor Air Quality and Health Outcomes in Langui, Peru: A Pilot Study”, *2010 AAAR International Specialty Conference on Air Pollution and Health, San Diego CA, March 22-26, 2010.*
52. Wei Z. *, and Montoya L.D.#, “Study of the Effects of Nanoparticles in the Antigen-Presentation Mechanism”, *2010 AAAR International Specialty Conference on Air Pollution and Health, San Diego CA, March 22-26, 2010.*

Manuscripts in Preparation (#Corresponding author; *graduate student, **undergraduate student)

1. Lamplugh A., Montoya L.D. “VOC Emissions from Nail Salon Products and Effective Removal Using Affordable Adsorbents and Synthetic Jets”.
2. Champion W.M.*, Montoya L.D., “Emission Factors of PM_{2.5}, OC, EC, CO, and CO₂ from cooking fuel derived from human waste”.

3. Aydogan Akseli A., Lamplugh A.*, Wrobetz A.*, Montoya L.D.# “Physical and Biological Characterization of Porous Media for Indoor Air Quality Control”.
4. Montoya L.D.#, Jorquera H., Rojas N., “Indoor Air Quality in Latin America: A Review”.

V. Research Funding

Current and Past Funded Grants

1. Impact of Stove Replacement on Air Quality in the Navajo Nation

Principal Investigator: Lupita D. Montoya

Funding Agency: US EPA

Total Award: \$60,000

Award Duration: **2018-2019**

2. Air-Cleaning Ceramic Artwork for Volatile Organic Compound Removal in Nail Salons

Research Advisor: Lupita D. Montoya

Graduate Student: Aaron Lamplugh

Funding Agency: CU NEST Graduate Student Summer Fellowship, University of Colorado

Total Award: ~\$11,000

Award Duration: **2018**

3. Volatile Organic Compounds (VOC) Exposure Interventions in Denver Area Nail Salons

Research Advisor: Lupita D. Montoya

Graduate Student: Aaron Lamplugh

Funding Agency: CU Engage Community-Based Research Graduate Fellowship, University of Colorado

Total Award: ~\$24,000

Award Duration: **2017-2018**

4. Evaluation of VOC in Nail Salons in Colorado

Principal Investigator: Lupita D. Montoya

Funding Agency: University of Colorado

Total Award: \$3,000 (100% LDM)

Award Duration: **2017-2018**

5. Evaluation of low-cost materials for VOC removal in nail salons

Principal Investigator: Lupita D. Montoya

Funding Agency: Mountain and Plains Education and Research Center –

(MAP ERC); CDC/NIOSH
Total Award: \$15,000 (100% LDM)
Award Duration: **2016-2018**

6. Entrepreneurship Seed Grant: Design and Entrepreneurship for Sustainable Communities

Principal Investigator: Lupita D. Montoya
Funding Agency: University of Colorado
Total Award: \$19,276 (100% LDM)
Award Duration: **2015-2016**

7. Cement Particle Toxicity during the Lifetime and Collapse of Civil Infrastructure

Principal Investigator: Mija Hubler
Co-Principal Investigator: Lupita Montoya
Funding Agency: University of Colorado – Innovative Seed Grant Program
Total Award: \$29,960 (30% LDM)
Award Duration: **2015-2016**

8. Energy Audit Training for the Navajo People

Principal Investigators: Lupita D. Montoya
Funding Agency: CU Engineering Excellence Fund
Total Award: \$3000
Award Duration: **2015-2016**

9. IMPART: Bridging the Gap Between Research and Social Impact in the Native Nations

Principal Investigator: Lupita D. Montoya
Funding Agency: University of Colorado
Total Award: \$4000 (100% LDM)
Award Duration: **2014-2015**

10. Fulbright Specialist grant in Environmental Health at the LaSalle University in Bogota, Colombia

Principal Investigator: Lupita D. Montoya
Funding Agency: U.S. Department of State
Total Award: ~\$6000 (100% LDM)
Award Duration: **2013-2014**

11. Innovative Applications of Flow Control to Improve Indoor Air Quality

Principal Investigator: Lupita D. Montoya
Co-Principal Investigator: Jean Hertzberg
Funding Agency: University of Colorado – Innovative Seed Grant Program

Total Award: \$49,000 (100% LDM)
Award Duration: **2013-2015**

12. REU Site: Environmental Sustainability

Principal Investigator: Lupita D. Montoya
Co-Principal Investigator: Angela Bielefeldt
Funding Agency: National Science Foundation
Total Award: \$299,959 (%100 LDM)
Award Duration: **2013-2016**

13. Indoor PM2.5 at Santiago, Chile: composition, source contributions, exposure and its association to health effects

Principal Investigator: Hector Jorquera (Pontifical Catholic University of Chile)
Foreign Collaborator: Lupita D. Montoya
Funding Agency: FONDECYT (Chilean National Commission for Scientific and Technological Research)
Total Award: \$360,000
Award Duration: **2012-2016**

Note: This proposal was developed with the collaboration of Dr. Montoya during the Fulbright grant. Chilean sponsor does not allow foreign co-PIs; Dr. Montoya appears as the only foreign collaborator on this grant. Grant produced 2 publications in peer-reviewed journals so far and one more is in review.

14. Fulbright Specialist grant in Environmental Science at the Pontifical Catholic University of Chile

Principal Investigator: Lupita D. Montoya
Funding Agency: U.S. Department of State
Total Award: \$5262 (100% LDM)
Award Duration: **2011-2012**

15. GK-12: Graduate Teaching Fellows in Community Situated Research: The Triple Helix of University, K-12, and Community Knowledge Production

Principal Investigator: Ron Eglash (Rensselaer Polytechnic Institute)
Co-Principal Investigator: Lupita D. Montoya
Funding Agency: National Science Foundation
Total Award: \$2,850,762 (\$111,376 for LDM)
Award Duration: **2010-2014**

16. Investigating Energy Sources from Solar-Biochar Toilet Byproducts: Student Workshop and Masters Project

Student Investigator: Barbara J. Ward
Co-Principal Investigators: Lupita D. Montoya (MS Advisor) and Karl Linden
Funding Agency: CU Engineering Excellence Fund

Total Award: \$1983
Award Duration: **2012-2013**

17. The Macrophage Response to Nanoparticles

Student Investigator: Natalie Hull
Advisor: Lupita D. Montoya
Funding Agency: Beverly Sears Graduate Student Research Grant
Total Award: \$1000
Award Duration: **2012-2013**

17. Freshman Engineering Projects: Addressing the Needs of the Developing World While Building Engineering Identity

Principal Investigator: Lupita D. Montoya
Co-Principal Investigators: Robyn Sandekian and Daniel Knight
Funding Agency: CU Engineering Excellence Fund
Total Award: \$12,915
Award Duration: **2011-2012**

18. Dairy Pasteurization for Rural Peru

Principal Investigator: Lupita D. Montoya
Funding Agency: National Collegiate Inventors and Innovators Alliance
Total Award: \$16,000
Award Duration: **2010-2012**

19. A Miniature Monitor for Time-Resolved Airborne Particle Chemistry

Principal Investigator: Susanne Hering (Aerosol Dynamics Inc.)
Contractor: Lupita D. Montoya
Funding Agency: National Institutes of Health
Total Award: \$721,500 (\$13,801 for LDM)
Award Duration: **2010-2011**

20. Use of Incomplete Notes and Desire to Learn (D2L) in a Thermodynamics Course

Principal Investigator: Lupita D. Montoya
Funding Agency: CU President's Teaching and Learning Collaborative
Total Award: \$1550
Award Duration: **2010-2011**

21. Rensselaer and Grupo de Apoyo al Sector Rural for a Sustainable Peru

Principal Investigator: Lupita D. Montoya
Funding Agency: NCIIA
Total Award: \$50,000
Award Duration: **2007-2009**

22. Health Effects of Nanoparticles Based on their Physico-Chemical Properties.

Principal Investigator: Lupita D. Montoya
Co-Principal Investigator: Jan Stegeman

Funding Agency: National Science Foundation
Total Award: \$100,000 (95% for LDM)
Award Duration: **2007-2009**

Travel Grants & Professional Development

1. Academic Mobility for Visiting Professors Grant, Universidad Autónoma de Baja California (México), Tijuana campus (UABC-T), August 20-26, **2017**. Grant covered expenses for one week academic visit to UABC-T to teach a short course in Indoor Air Quality, give a seminar and meet with faculty and students to coordinate research and academic projects.
2. Advanced Health Disparities Summer Institute, from Programs to Increase Diversity Among Individuals Engaged in Health-Related Research (PRIDE-AHD) held at the University of Arizona. The PRIDE-AHD Program is a competitive all-expenses paid 1.5-year-long program funded by the National Institutes of Health. The Summer Institutes (June 4-17, **2017** and summer **2018**) provide scholars with an intensive training and mentoring experience in health disparities research, which was further developed throughout the program. Additional support was provided on grant writing.
3. UC San Diego Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES) Conference, January 20-22, **2017**. INCLUDES is a comprehensive national initiative designed to enhance US leadership in science, technology, engineering and mathematics (STEM) discoveries and innovations focused on NSF's commitment to diversity, inclusion, and broadening participation in these fields.
4. Invited participant at the Sustainable Engineering Education Community Workshop, NSF, Arlington VA, Aug. 5-6, **2014**.
5. Integrating Sustainability into Engineering: Design principles and tools to expand your educative capacity. National conference of the Society for the Advancement of Chicanos and Native Americans in Science, University of South Florida, \$1000, October 21, **2010**.
6. Summer Leadership Institute sponsored by the American Association for the Advancement of Science (AAAS) and the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), Washington DC, July 28 – August 1, 2009.
7. Center for Sustainable Engineering Workshop, Austin, TX, July 15 – 18, 2007.
8. QEM/NSF Faculty Early Career (CAREER) Development Proposal Workshop, Las Vegas, NV, February 9-10, 2007.
9. Federation of American Societies for Experimental Biology (FASEB) and the National Institutes of Health (NIH), Grantsmanship Training Program, Bethesda MD, August 28, 2006.

10. NSF Minority Faculty Development Conference, Arlington, VA October 17-19, 2004.
11. ExcEED (Excellence in Engineering Education) Workshop, West Point, NY, July 25-30, 2004.
12. Smithsonian Environmental Leadership course, Smithsonian Institution/Monitoring and Assessment of Biodiversity Program, Front Royal, Virginia, September 10-22, 2000.
13. N.S.F. Engineering Education Scholars Workshop, Carnegie-Mellon University (July 1998).

VI. Presentations

Presentations at national and international meetings (#Corresponding author; +postdoc, *graduate student, **undergraduate student)

1. Jorquera H., Montoya L.D.[#], Rojas N., “Air Pollution in Latin American Cities”, *International Aerosols Conference*, St. Louis MO, September 7, **2018**.
2. Montoya L.D.[#], Gadde H.^{*}, Champion W., Li N., Hubler M., “Inflammatory Effects of Fine Aerosols Generated from Rapid Concrete Failure”, *International Aerosols Conference*, St. Louis MO, September 6, **2018**.
3. Montoya L.D.[#], Champion W., Solomon P.A., Stewart K., Charley P., “Indoor Aerosols from Home Heating in the Navajo Nation: Sources, Health Effects, and Control”, *International Aerosols Conference*, St. Louis MO, September 3, **2018**.
4. Jorquera H.[#], Montoya L.D., Barraza F., “Indoor PM_{2.5} in an Urban Zone with Heavy Wood Smoke Pollution: The Case of Temuco, Chile”, *International Aerosols Conference*, St. Louis MO, September 3, **2018**.
5. Lamplugh A.^{**}, Montoya L.D., “Volatile Organic Compound Exposure in Colorado Nail Salons”, Joint Meeting of the *International Society of Exposure Science and the International Society for Environmental Epidemiology (ISES-ISEE)*, Ottawa Canada, August 27, **2018**.
6. Montoya L.D.[#], Champion W. “A Culturally-Appropriate Household Heating Energy Transition for the Navajo Nation”, *Indoor Air 2018 International Conference*, Philadelphia PA, July 25, **2018**.
7. Montoya L.[#], Champion W. “Emission Factors of Fine Particulate Matter, Organic and Elemental Carbon, Carbon Monoxide and Carbon Dioxide from Briquettes Made from Human Waste”, *Indoor Air 2018 International Conference*, Philadelphia PA, July 25, **2018**.
8. Lamplugh A.^{**}, Montoya L.D. “Volatile Organic Compound Exposure in Colorado Nail Salons”, *Indoor Air 2018 International Conference*, Philadelphia PA, July 23, **2018**.

9. Bielefeldt A., Montoya L.D., Rulifson G., "Methods Matter: Contrasting Undergraduate Research Experience Outcomes based on Surveys and Interview Methods" presented at *Frontiers in Education Conference*, Indianapolis IN, Oct 19, **2017**.
10. Lamplugh A.*#, Xiang F.**, Trinh J.**, Ly E.**, Montoya L. "Investigation of VOC Exposure from Nail Salon Products", 36th Annual Conference of the American Association for Aerosol Research, Raleigh NC, October 18, **2017**.
11. Champion W.*, Connors L.**, Montoya L.D.#, "Emission Factors of Fine Particulate Matter, Organic and Elemental Carbon, Carbon Monoxide, and Carbon Dioxide for Solid Fuels Commonly Used for Heating Navajo Homes", 36th Annual Conference of the American Association for Aerosol Research, Raleigh NC, October 17, **2017**.
12. Champion W., Montoya L. "PM_{2.5}, OC, EC, CO and CO₂ Emissions from Briquettes Made with Human Waste", 36th Annual Conference of the American Association for Aerosol Research, Raleigh NC, October 17, **2017**.
13. Badonie M.I.###, Lee F.J.**, Roy J.**, Randall C.**, Montoya L.D., "Reclaiming Navajo Burn Practices", First *National Native Health Research Training Conference*, Denver CO, September 19, **2017**.
14. Montoya L.D.#, Champion W.M.*, Charley P., Stewart K., "A Navajo Framework: integration of perception, culture, and science to identify in-home heating options to improve indoor air quality in the Navajo Nation", First *National Native Health Research Training Conference*, Denver CO, September 19, **2017**.
15. Champion W.*#, Connors L.**, Montoya L., "Characterization of Emissions from the Combustion of Solid Fuels Used for Heating in the Navajo Nation", presented at *Annual Conference of the American Association for Aerosol Research*, Portland OR, October 19, **2016**.
16. Heichelheim E.*, Hubler M., Montoya L.#, "Aerosol Generation from Rapid Concrete Failure", presented at *Annual Conference of the American Association for Aerosol Research*, Portland OR, October 20, **2016**.
17. Lamplugh A.*, Ravichandran S.*, Miller S., Montoya L.#, "Evaluation of Low-Cost Materials for VOC Removal in Nail Salons", presented at *Annual Conference of the American Association for Aerosol Research*, Portland OR, October 21, **2016**.
18. Zurita Frias R.M.*#, Rodriguez Ventura J.G., Castillo Quiñonez J.E., Toledo Arangure D.S.*, Montoya L.D. "Evaluation and Characterization of PM_{2.5} in the East Zone of Tijuana B.C.N., Mexico", *XV International Congress and XXI National Congress of Environmental Sciences*, Oaxaca, Mexico, June 15-17, **2016**.
19. Price M.**, Majestic B.#, Champion W.*, Schenandoah J.*, Montoya L.D., Gordon J.*, Cartledge B.*, Hannigan M., "Crustal and Toxic Metal Emissions from Fuel Sources Used on the Navajo Nation", *Annual Conference of the American Association for Aerosol Research*, St. Paul MN, October 13, **2015**.

20. Montoya L.D.#, Wrobetz A.*, Aydogan Akseli A., “Physical and Biological Characterization of Porous Media for Indoor Air Quality Control”, *Annual Conference of the American Association for Aerosol Research*, St. Paul MN, October 13, **2015**.
21. Mauney D.*, Suwongso C.**, Srubar W. and Montoya L.D.#, “Experimental Study of Active Flow and Photocatalytic Materials for Indoor Air Quality Applications”, *Annual Conference of the American Association for Aerosol Research*, St. Paul MN, October 14, **2015**.
22. Champion W.*#, Charley P., Klein B., Denny A.*, McKenzie J.*, Stewart K., Solomon P.A., Montoya L.D., “Perception, Cultural, and Technical Assessment of Heating Alternatives to Improve Indoor Air Quality on the Navajo Nation”, *Annual Conference of the American Association for Aerosol Research*, St. Paul MN, October 15, **2015**.
23. Abar M.*, Mauney D.*, Hertzberg J. and Montoya L.D.#, “Characterization of a Commercial Synthetic Jet Actuator for Air Quality Applications”, *Annual Conference of the American Association for Aerosol Research*, St. Paul MN, October 13, **2015**.
24. Champion W.M.*#, Barraza F.*, Jorquera J., Montoya L.D., “Comparison Of Indoor And Outdoor Air Quality In Latino Communities In Peru, Chile, And USA”, *Healthy Buildings USA Conference*, Boulder CO, July 20, **2015**.
25. Montoya L.D.#, Wrobetz A.*, Matteazzi M.**, “Formaldehyde Sorption to Porous Media for Air Quality Applications”, *Healthy Buildings USA Conference*, Boulder CO, July 20, **2015**.
26. Aydogan Akseli A., Dyson A., Montoya L.D., “From a Lab Scale to the Building Scale: Formaldehyde Removal by a Plant Module”, *Healthy Buildings USA Conference*, Boulder CO, July 21, **2015**.
27. Montoya L.D., “Guided Note-taking and Active Learning: Implementation in Two Engineering Courses”, *ASEE Rocky Mountain 2015 Conference*, Denver CO, April 10, **2015**.
28. Price M.**, Champion W.*, Ward B., Cartledge B., Majestic B.J.#, Montoya L.D., “Trace Metal Emissions from the Combustion of Fecal Char Briquettes and a Comparison to Other Solid Fuels”, *249th ACS National Meeting and Exposition*, Denver CO, March 22-26, **2015**.
29. Jorquera H.#, Barraza F.*, Valdivia G., Montoya L. D., “Indoor and Outdoor Endotoxins at Santiago, Chile: Spring 2012 Results”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
30. Montoya L. D.#, Barraza F.*, Jorquera H., “Indoor PM2.5 at Santiago, Chile: Source Apportionment and Outdoor Contributions”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.

31. Champion W.*#, Klein B., Charley P., Denny A.*, McKenzie J.*, Stewart K., Solomon P.A., Montoya L.D., “Assessment of Alternatives to Indoor Stove Use on the Navajo Nation”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
32. Champion W.*#, Barraza F.*, Jorquera H., Montoya L. D., “Comparison of Indoor and Outdoor Air Quality in Latino Communities in Peru, Chile and USA”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
33. James C.**, Garcia-Fine S.**, Ward B.*, Champion W.*, Montoya L. D.#, “Characterization of Emissions from the Combustion of Solid Fuels Used in the Navajo Nation and Others relevant to Developing Communities”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
34. Escobedo L.E.**, Champion W.*, Li N. and Montoya L.D.#, “Indoor Air Quality in Latino Homes in Boulder Colorado”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
35. Pereira de Freitas Leal A.H.** and Montoya L.D.#, “Overview of Air Quality Regulations in South America”, *Annual Conference of the American Association for Aerosol Research*, Orlando FL, October 20 – 24, **2014**.
36. Ward B.J.*#, Yacob T.W., Linden K. and Montoya L.D., “Fecal Sludge Treatment and Valorization: Evaluation of Char Briquettes from Human Feces as a Solid Fuel”, *2014 Water and Health Conference*, University of North Carolina, October 13-17, **2014**.
37. Champion, W.M.*, Klein, B., Charley, P.H., Denny, A. *, McKenzie, J.*, Stewart K., Solomon P.A., and Montoya, L.D.#, “Assessment of Alternatives to Indoor Stove Use on the Navajo Nation”, *Specialty AWMA Conference: Strategies to Reduce Residential Wood Smoke*, Missoula MT, August 7-8, **2014**.
38. James C.**, Champion W. *, Montoya L.D.#, Garcia-Fine S.**, Ward B.J., “Composition of Emissions from the Combustion of Solid Fuels Used on the Navajo Nation”, *Specialty AWMA Conference: Strategies to Reduce Residential Wood Smoke*, Missoula MT, August 7-8, **2014**.
39. Wrobetz A. *, Matteazzi M.**, Bielefeldt A., Montoya L.D.#, “Degradation of formaldehyde sorbed onto porous hydroponic growing media” *Annual Rocky Mountain Section of the American Water Works Association Conference*, Fort Collins CO, May 22, **2014**.
40. Escobedo L.E.**, Li N. and Montoya L.D.#, “Biological Components in PM2.5 in Boulder, Colorado Latino Homes”, *Annual Conference of the American Association for Aerosol Research*, Portland OR, September 30 – October 4, **2013**.

41. McQuillan B.*, Hertzberg J. and Montoya L.D.#, “On the Development of Indoor Air Quality Control Using Synthetic Jets”, Annual Conference of the American Association for Aerosol Research, Portland OR, September 30 – October 4, **2013**.
42. Lennox E.R.*, Kreisberg N.M., Montoya L.D.#, “Design and Characterization of a New Coarse Particle Collector Based on Microtrap Impactor Technology”, Annual Conference of the American Association for Aerosol Research, Portland OR, September 30 – October 4, **2013**.
43. Escobedo L.E.**# and Montoya L.D., “Indoor and Outdoor Air Quality in a Latino Community in Boulder, Colorado”, 2013 Conference of the Society for the Advancement of Chicanos and Native Americans in Sciences, San Antonio, TX, October **2013**.
44. Escobedo L.E.***, Montoya L.D.#, “Indoor Air Quality in Latino Homes in Boulder, Colorado”, 2013 Association of Environmental Engineering and Science Professors Education and Research Conference, Golden CO, July 14-16, **2013**.
45. Teske S.S., Detweiler C. and Montoya L.D.#, “Metal Oxide Nanoparticles Induce Nitric Oxide Production in Cell Culture Macrophages”, 2013 Association of Environmental Engineering and Science Professors Education and Research Conference, Golden CO, July 14-16, **2013**.
46. Ward B.J.* and Montoya L.D.#, “Investigating Energy Sources from Solar Biochar Toilet”, 2013 Association of Environmental Engineering and Science Professors Education and Research Conference, Golden CO, July 14-16, **2013**.
47. Montoya L.D.#, Sandekian R. and Knight D. (**2013**). “Integrating Engineering for Developing Communities into Engineering Education: A Case Study”, Proceedings of the 2013 ASEE Annual Conference and Exposition.
48. Montoya L.D.# and Wei Z*. “Effect of Particle Size and Area on the Cytotoxicity of Alumina and Titania Nanoparticles”, Annual Conference of the American Association for Aerosol Research, Orlando FL, October 3-7, **2011**.
49. Montoya L.D.#, Gomez O.M.*, “Combustion and Biogenic Aerosols and Health Outcomes in Developing Communities”, Annual Conference of the American Association for Aerosol Research, Orlando FL, October 3-7, **2011**.
50. Montoya L.D.# and Harman U.A.*, “Integration of Research, Education and Entrepreneurship in a Rural Peruvian Community”, Biannual Conference of the Association of Environmental Engineering and Science Professors, Tampa FL, July 10-12, **2011**.
51. Aydogan A.* and Montoya L.D.#, “Formaldehyde Removal by Four Indoor Plant Species”, International Congress of Indoor Air, Austin TX, June 5 – 10, **2011**.

52. Gomez O.M.*, Handorean A.M., Brandt E.L.**, Lopez A.A.**, Hernandez M.T. and Montoya L.D.#, “Indoor Air Pollution in an Indigenous Highlands Community in Peru”, International Congress of Indoor Air, Austin TX, June 5 – 10, **2011**.
53. Montoya L.D.# and Sandekian R.E., “Who Determines Intellectual Merit?”, The Pedagogy of Privilege Conference, Denver CO, August 15-16, **2011**.
54. Wei Z. *, and Montoya L.D.#, “Cytotoxicity and Immune Effects of Metal Oxide Nanoparticles”, Annual Conference of the American Association for Aerosol Research, Portland OR, October 28, **2010**.
55. Montoya L.D.#, Gomez O.M.*, Handorean A., Hernandez M., and Canales R.A., “Profiles of Indoor Bioaerosols and Airborne Combustion Products Typical in Rural Peruvian Andean Communities”, Annual Conference of the American Association for Aerosol Research, Portland OR, October 27, **2010**.
56. Montoya L.D., “Promoting Sustainable Development in Indigenous Communities in Andean Peru: Leveraging Culture in Engineering”, presented at the national meeting of the Society for the Advancement of Chicanos and Native Americans in Science, Anaheim CA, October 1, **2010**.
57. Montoya L.D.#, Gomez O.M.*, Harman U.*, Canales R.A., “Indoor Air Quality and Health Outcomes in Langui, Peru: A Pilot Study” presented at the Air Pollution and Health Specialty Conference of the American Association for Aerosol Research, San Diego CA, March 24, **2010**.
58. Wei Z. *, and Montoya L.D.#, “Study of the Effects of Nanoparticles in the Antigen-Presentation Mechanism” presented at the Air Pollution and Health Specialty Conference of the American Association for Aerosol Research, San Diego CA, March 25, **2010**.
59. Allard M.*. and Montoya L.D.#, “Use of Synthetic Jets to Control Aerosol Dispersion in a Room”, Annual Conference of the American Association for Aerosol Research, Minneapolis MN, October 26-30, **2009**.
60. Lennox E. *, Kreisberg N. and Montoya L.D.#, “Characterization of a Microtrap Impactor”, Annual Conference of the American Association for Aerosol Research, Minneapolis MN, October 26-30, **2009**.
61. Wei Z. *, and Montoya L.D.#, “Collection efficiency of a midjet impinger for nanoparticles 3-100 nm in size”, Annual Conference of the American Association for Aerosol Research, Minneapolis MN, October 26-30, **2009**.
62. Wei Z. * and Montoya L.D.#, “Characterization of TiO₂ Nanoparticles for In Vitro Models of Toxicity”, 27th Annual Conference of the American Association for Aerosol Research, Orlando FL, October 21, **2008**.

63. Fritz P.M.*, Hershey D.L. and Montoya L.D.#, “Effect of Protein Loading on Particle Size, Density and Shape”, 26th Annual Conference of the American Association for Aerosol Research, Reno NV, September 25, **2007**.
64. Martin H.M.*, Fritz P.M.*, Hershey D.L. and Montoya L.D.#, “Generation and characterization of allergen-loaded microspheres”, Proceedings of the International Aerosol Conference, St. Paul, MN, September **2006**.
65. Fritz P.*, Hershey D. and Montoya L.D.#, “Polymeric microspheres encapsulating allergen for use in intra-nasal instillation and inhalation regimens in a murine model of allergy”, Proceedings of the 9th Annual Upstate New York Immunology Conference, Bolton Landing, NY, October **2006**.
66. Montoya L.D.#, Molina R.M. and Brain J.D. “Use of a compact cascade impactor to compare the biological activity of size-segregated samples of three occupational aerosols”, Proceedings of the Annual Conference of the American Association for Aerosol Research, Atlanta, GA, October **2004**.
67. Montoya L.D.# and Kreisberg N. “Evaluation of the collection efficiency of a personal micro-trap aeroallergen sampler”, Proceedings of the Annual Conference of the A.A.A.R., Atlanta, GA, October **2004**.
68. Montoya L.D.#, Molina R.M. and Brain J.D. “Comparison of Biological Activity of Size Segregated Aerosol Samples”, Proceedings of the Third Annual Environmental Systems Symposium at Syracuse, Syracuse, NY, October **2003**.
69. Montoya L.D.#, Molina R.M. and Brain J.D. “Development of a protocol for the use of polyurethane foam (PUF) in a new compact cascade impactor for toxicological studies”, Proceedings of the Annual Conference of the A.A.A.R., Anaheim, CA, 1 October **2003**.

Presentations at local meetings (#Corresponding author; *graduate student, **undergraduate student)

1. Lamplugh A.*#, Xiang F.**, Trinh J.**, Montoya L.D. “A Pilot Study of VOC Exposure in Front Range Nail Salons”, *Tenth Symposium of the Mountain & Plains Education and Research Center*, Denver CO, April 5, **2018**.
2. Lamplugh A.*#, Montoya L.D. “An Air Quality Perspective on Health Hazards in the Nail Salon Industry”, *CUSTEMSeminar*, University of Colorado Boulder, Boulder CO, December 14, **2017**.
3. Lamplugh A.#, Montoya L.D., “Evaluation of Low-Cost Materials for VOC Removal in Nail Salons”, presented at the *Ninth Symposium of the Mountain & Plains Education and Research Center*, Denver CO, March 9, **2017**.

4. Champion W.#, Montoya L.D., “Navajo Home Heating Practices, Their Impacts on Indoor Air Quality and Human Health, and a Framework to Identify Sustainable Solutions”, *Environmental Engineering Seminar*, University of Colorado Boulder, Boulder CO, October 21, **2016**.
5. Montoya L.D., “Guided Note-taking and Active Learning: Implementation in Two Engineering Courses”, ASEE Rocky Mountain 2015 Conference, Denver CO, April 10, **2015**.
6. Pereira de Freitas Leal A.H.**#, Montoya L.D., “Overview of Air Quality Regulations in South America”, 11th Annual Interdisciplinary Research Collaborative Undergraduate Student Research Symposium at Rose-Hulman Institute of Technology on October 24th, **2014**.
7. Montoya L.D., “General Overview of Research in the Montoya Research Group”, Collaborative Air Quality Research meeting, Boulder CO, January 16, **2014**.
8. Champion W.*#, Montoya L.D., “Comparison of Indoor and Outdoor Air Quality in Peru, Chile and USA”, Workshop on Air Quality and Oil & Gas Development in the Rocky Mountain Region, Boulder CO, October 21-22, **2013**.
9. Montoya L.D.#, Sandekian R., Knight D., “Motivational effectiveness of engineering for developing communities in an engineering design course”, Fifth Annual Symposium on STEM Education, Boulder CO, September 23, **2013**.
10. Escobedo L.E.**#, Montoya L.D., “Assessment of Indoor Air Quality in a Latino Community” Final REU presentation, Boulder, CO, August 8, **2013**.
11. Oronia P.*, Montoya L.D.#, “Warm Water for Children”, 2012 Diversity Summit, Boulder CO, November 15, **2012**.
12. Escobedo L.E.**#, Montoya L.D., * “Assessment of Indoor Air Quality in Boulder, Colorado”, Final REU presentation, Boulder CO, August 9, **2012**.
13. Hwang N.**#, Mitcham C., Montoya L.D., “The Ethical, Legal and Societal Implications of Nanotechnology”, Final REU presentation, Boulder CO, August 8, **2011**.
14. Archuleta A.**#, Montoya L.D., “Analysis of formaldehyde transport from porous solid-sorbent media to hydroponic growth media”, Final REU presentation, Boulder CO, August 11, **2011**.
15. Guerra A.**#, Gomes O.*, Kearns J., Montoya L.D., “Air and water quality engineering applications of biomass in the developing world from cow dung and biochar”, Final SMART presentation, Summer **2011**.
16. Brandt E.**#, Gomez O.*, Lopez A.**, Montoya L.D., “Indoor air pollution in an indigenous highlands community in Peru”, Discovery Learning Symposium, Boulder CO, April 15, **2011**.

17. Montoya L.D., “Application of CULearn for Teaching and Learning Assessment in an Environmental Engineering Course”, CU President’s Teaching Scholars Program, Denver, CO, May 16, **2011**.
18. Vazquez-Rivera N.**, Gomez O.*, Montoya L.D., “Comparison of black carbon, protein and carbohydrate concentrations in particulate matter from indoor and outdoor environments in Boulder, CO”, final SMART presentation, Boulder CO, Summer **2010**.

Invited Talks

1. “The Complex and Competing Challenges Involved in Controlling Indoor Air Pollution and Improving Health in Underserved and Developing Communities” to be presented at the *16th International Congress on Combustion By-Products and their Health Effects*, University of Michigan, Ann Arbor, July 10-12, **2019**.
2. Asthmatic Issues Associated with Air Quality on the Navajo Nation, *Public Health Seminar*, Diné College, Window Rock AZ, November 20, **2018**.
3. Energy and Environmental Justice in the Navajo Nation: Opportunities and Challenges, *Tribal College and University Summer Program*, Diné College, Farmington NM, June 13, **2018**.
4. Engineering and Environmental Justice: Making the Case for Diversity, *College of Engineering Special Seminar*, San Jose State University, San Jose CA, May 1, **2018**.
5. Indoor Air Pollution from Home Heating in the Navajo Nation: Sources, Health Effects and Control, *Environmental Engineering Seminar*, Stanford University, April 30, **2018**.
6. Energy and Environmental Justice in the Navajo Nation: Opportunities and Challenges, *El Centro Chicano and Latino Special Seminar*, Stanford University, April 30, **2018**.
7. Research and Civic Engagement in Engineering, *Women in Engineering course*, University of Colorado Boulder, Boulder CO, February 16, **2018**.
8. A multi-scale and multi-disciplinary research approach to address human exposure to indoor air pollution, given at *Multidisciplinary Seminar*, Environmental Chemistry Department, Universidad Autónoma de Baja California, Tijuana, México, August 24, **2017**.
9. The Imperative for Diversity in Science, given at *March for Science Denver*, April 22, **2017**. This invited public talk was part of a global movement to celebrate science and the role it plays in everyday lives. I was one of a few speakers, including John Hickenlooper, Governor of Colorado, at the march in Denver. The main goal of these events were to emphasize that science upholds the common good and that it is essential in society. It also called for evidence-based policy that safeguard the best interest of our communities.

10. Culture and Values in Engineering Research, given at Special Topics course *Race, Culture, and Identity in Undergraduate STEM*, University of Colorado Boulder, February 20, **2017**.
11. Navajo Home Heating Practices, Their Impacts on Indoor Air Quality and Human Health, and a Framework to Identify Sustainable Solutions, *University of Colorado Trustees Reception*, Sustainability, Energy and Environment Complex, Boulder CO, November 17, **2016**.
12. Indoor Air Quality and Sustainability Research. *Shiley-Marcos School of Engineering*, University of San Diego, San Diego, CA, March 7, **2016**.
13. Indoor Air Pollution in Developing Communities: Chile and the Navajo Nation as Case Studies. *Soil, Water and Environmental Sciences Seminar*, University of Arizona, Tucson AZ, February 8, **2016**.
14. Indoor Air Pollution in Developing Communities: A Trinity of Challenges. *Environmental Health Sciences Seminar*, Mel and Enid Zuckerman College of Public Health, University of Arizona, Tucson AZ, February 4, **2016**.
15. Indoor Air Pollution in Developing Communities: Characterization, Impacts and Interventions (Plenary talk). *Environmental Sciences Symposium José Guillermo Rodríguez Ventura*, Universidad Autónoma de Baja California, Tijuana, México, August 28, **2015**.
16. Indoor Air Pollution in Developing Communities: Characterization, Impacts and Interventions. *Grupo de Apoyo al Sector Rural*, Pontificia Universidad Católica del Perú, Lima, Peru, August 20, **2015**.
17. Indoor Air Pollution in Developing Communities: Characterization, Impacts and Interventions. *Civil Engineering Seminar*, Escuela Superior Politécnica del Litoral (ESPOL), Guayaquil, Ecuador, August 18, **2015**.
18. Indoor Air Pollution in Developing Communities: Characterization, Impacts and Interventions (Plenary talk). *Colombian Congress and International Conference on Air Quality and Public Health (CASAP)*, Bucaramanga, Colombia, August 14, **2015**.
19. Indoor and Outdoor Air Quality in Latino Communities in Perú, Chile and USA. *Environmental Engineering Seminar Series*, Universidad de los Andes, Bogotá, Colombia, August 11, **2015**.
20. Contaminación Intramural en Comunidades Latinas (Indoor Air Pollution in Latino Communities). *7th Symposium Chemistry in Your World*, Universidad Autónoma de Baja California, Tijuana, México, October 17, **2014**.
21. Contaminación Intramural y sus Efectos de Salud (Indoor Pollution and Its Health Effects), Universidad Popular del Cesar, Valledupar, Colombia, April 3, **2014**.

22. Investigación en Sostenibilidad: Desde Casas de Adobe Hasta Edificios Inteligentes (Sustainability: From Adobe Housing to Smart Buildings), *CLIMA Seminar Series*, La Salle University, Sede Centro, Bogotá, Colombia, March 31, **2014**.
23. Workshop on Specific Cases of Indoor Air Pollution: Online Tools. LaSalle University, Sede Chapinero, Bogotá, Colombia, March 28, **2014**.
24. Experiencia Internacional en Contaminación Intramural (International Experience in Indoor Air Pollution), *Fulbright Forum*, LaSalle University, Sede Chapinero, Bogotá Colombia, March 27, **2014**.
25. Making the Most of Research Experiences for Undergraduates, Grupo Semilleros, La Salle University, Sede Centro, Bogotá, Colombia, March 26, **2014**.
26. Medición de Contaminantes del Aire en Ambiente Intramural (Measurement of Indoor Air Pollutants). LaSalle University, Sede Chapinero, Bogotá, Colombia, March 25, **2014**.
27. Introducción a la Problemática de la Contaminación del Aire Intramural (Introduction to Indoor Air Pollution). LaSalle University, Sede Chapinero, Bogotá, Colombia, March 25, **2014**.
28. Evaluating the Health Effects of Engineered Nanoparticles as Emergent Contaminant. Consortium for Research and Education on Emergent Contaminants, Boulder CO, December 13, **2012**.
29. Indoor Air Pollution from Combustion and Biogenic Sources in Developing Communities. Environmental Engineering Seminar, Stanford University, October 28, **2011**.
30. Indoor Air Quality and Environmental Health: from Dung to Nanotechnology, Environmental Engineering Seminar Series, University of Colorado at Boulder, Boulder CO, November 17, **2010**.
31. Sustainability and Indoor Air Quality: From Adobe Housing to Smart Buildings. Environmental Science and Engineering Seminar Series, Colorado School of Mines, Golden CO, October 14, **2010**.
32. The Darrin (Keynote) Address at Tapping Ceremony, *Phalanx Service and Leadership Honor Society*. Rensselaer Polytechnic Institute Phalanx Senior Honor Society, Troy, NY, April 11, **2010**.
33. Indoor Air Quality and Aerosol Research Activities. Center for Environment, Pontificia Universidad Católica de Chile, Santiago Chile, January 4, **2010**.
34. Aerosol Science, Engineering and Public Health. Environmental Engineering Seminar Series, University of Colorado at Boulder, Boulder CO, September 24, **2009**.

35. Indoor Air Pollution and Sustainable Development in Rural Peru, invited lecture at the *Ecological Economics* course at Rensselaer Polytechnic Institute, March 2, **2009**.
36. Understanding Health Effects of Nanoparticles. Seminar Series for the Department of Civil, Environmental and Architectural Engineering, University of Colorado, Boulder, CO, December 5, **2008**.
37. The Role of Aerosol Science in Nanotechnology. Bard Center for Environmental Policy, Bard College, Annandale-on-Hudson NY, May 4, **2008**.
38. Protecting and Improving Human Health Through Aerosol Science and Engineering Research. Smith College, February 22, **2008**.
39. Aerosol characterization and control from the nano to supermicron ranges for improving indoor air quality. Cornell University, November 8, **2007**.
40. Indoor Air Quality and Nanotechnology. Bard Center for Environmental Policy, Bard College, Annandale-on-Hudson NY, May 7, **2007**.
41. Health Effects of Nanoparticles Based on their Physico-Chemical Properties. NSF-NSEC Annual Site Visit and Review Meeting, Troy NY, May 3, **2007**.
42. Rensselaer and GRUPO-PUCP for a Sustainable Peru. Eleventh Annual Meeting of the *National Collegiate Inventors and Innovators Alliance*, Tampa, FL, March 22, **2007**.
43. Global Warming and Climate Change: Scientific, Political and Social Aspects”, invited talk given to the *Rensselaer County League of Women Voters*, Troy, NY, January 18, **2007**.
44. Aerosol generation and characterization for the study of allergic diseases and asthma. Seminar Series of the *Civil and Environmental Engineering Department* at Clarkson University, NY, April 7, **2006**.
45. Development of a research program to understand human exposure to biological aerosols. Seminar Series of the *Biology Department* at Rensselaer Polytechnic Institute, Troy, NY, November 7, **2005**.
46. Aerosol Science and Engineering as Tools for the Study of Allergic Disease. Seminar Series of the *Center for Immunology and Microbial Disease*, Albany Medical College, Albany, NY, March 7, **2005**.
47. Health Effects of Air Pollutants. Liberal Arts & Sciences Seminar Series, S.U.N.Y. Cobleskill, Cobleskill NY, March 9, **2000**.
48. Size Distribution Characteristics of Airborne Cat Allergen (*Fel d 1*) Following Typical Domestic Activities. Wadsworth Center for Research, New York Department of Health, Albany, NY, May **1999**.

49. Biological Aerosols and Health. School of Public Health, University at Albany, Albany NY, May 6, **1999**.

Outreach Presentations Promoting Diversity in Engineering

1. Study Habits for College Success. *Society of Hispanic Professional Engineers*, CU Student Chapter, General Body Meeting, Boulder CO, September 13, **2018**.
2. Research and Civic Engagement in Engineering. *Science Program*, Mead High School, Longmont CO, March 7 & 8, **2017**.
3. Research and Civic Engagement in Engineering. *Advancement Via Individual Determination (AVID) program* (preparing first-generation college students), Casey Middle School, Boulder CO, September 23, **2016**.
4. Indoor Air Quality and Sustainability Research. Broomfield Heights Middle School's *Summer EdVentures STEM Program*, July 12, **2016**.
5. Faculty Spotlight Speech, *TailGateway to CU Engineering* (for outstanding underrepresented students who have been admitted to the College of Engineering for Fall 2016), BOLD Center, February 28, **2016**.
6. Indoor Air Pollution in Developing Communities: Chile and the Navajo Nation, *American Indian Science and Engineering Society (AISES) and Native American Student Association*, University of Arizona, Tucson AZ, February 8, **2016**.
7. Experiences in Research, Teaching and Service as a Minority Scholar at CU. *Leadership-Excellence-Achievement-Diversity (LEAD) Fall Fest Welcome event*, October 9, **2015**.
8. Science and Engineering Research in Tribal and other Developing Communities. *NSF Summer Tribal Building Program*, Boulder CO, June 10, **2015**.
9. Improving our Communities through Engineering, *Campos EPC EngiNearMe Program*, CU BOLD Center, Boulder CO, June 9, **2015**.
10. Engineering at CU, National Student Leadership Academy, *Mexican American Engineers and Scientists (MAES)*, Boulder CO, February 19, **2015**.
11. Science and Engineering Matters. Faculty Presentation, *CU Diversity Sampler*. This is a day-long recruitment program that gives prospective, undergraduate students who come from diverse or multicultural backgrounds a full introduction to what the college experience is like at CU-Boulder, Boulder CO, January 25, 2015.
12. Research Opportunities in Air Quality for Developing Communities. *SHPE CU Chapter*, December 1, **2014**.

13. Pursuing Research Projects that Improve the Quality of Life of Developing Communities, *Chemistry Department*, Universidad Autónoma de Baja California, Tijuana, México, October 17, **2014**.
14. Indoor Air Pollution and Health in Developing Communities, *NSF (Summer) Research Mentoring Program*, University of Colorado, Boulder, June 17, **2014**.
15. Steps to Writing a Successful Journal Article. Regional Leadership Development Conference (Graduate Track) of the *Society of Hispanic Professional Engineers*, Golden CO, April 12, **2014**.
16. Gender Issues in Engineering, Programa de Ingeniería Ambiental y Sanitaria (*Environmental and Sanitary Engineering Program*), La Salle University, Sede Centro, Bogotá, Colombia, March 25, **2014**.
17. Opportunities for Improving our Communities Through Engineering. *CU Diversity Sampler*, Boulder CO, January 25, **2014**.
18. Engineering: Making a Difference. *AVID program* (Advancement Via Individual Determination school, preparing first-generation college students). Casey Middle School, Boulder CO, January 10, **2014**.
19. Engineering at CU Boulder. *SHPE Science Extravaganza*, Boulder CO, May 14, **2013**.
20. Sustainability: From Adobe Housing to Smart Buildings. Meeting of the *Society of Environmental Professionals*, Boulder CO, March 12, **2013**.
21. Passive Solar Heating for the Navajo Nation. *Diné Environmental Institute*, Diné College, Shiprock NM, January 14, **2013**.
22. Engineering a better life for poor communities. *AVID program*, Casey Middle School, Boulder CO, January 11, **2013**.
23. Exploring synergies between multicultural education, diversity and traveling abroad. *2012 Diversity Summit*, Boulder CO, November 15, **2012**.
24. Reaching out of the classroom and around the world. *CU Diversity Sampler*, Boulder CO, January 28, **2012**.
25. Education: Making a Difference. *Diversity Summer Programs*, University of Colorado Boulder, Boulder, CO, June 28, **2011**.
26. How Can Engineers Help our Communities? *Spring Bridge Program* (mentoring program for English learners), U.S. Grant High School, Van Nuys, CA, March 25, **2011**.
27. Engineering a Healthier Life. *CU Miramontes Arts and Sciences Program (MASP)* Undergraduate Colloquium, Boulder CO, February 15, **2011**.

28. Research in Engineering. *Undergraduate Research Opportunities Program Symposium*, University of Colorado Boulder, January 21, **2011**.
29. Indoor Air Pollution in Langui, Peru. *CU Diversity Sampler Recruitment Program*, University of Colorado Boulder, January 15, **2011**.
30. Promoting Sustainable Development in Indigenous Communities in Andean Peru: Leveraging Culture in Engineering, Annual Meeting of the *Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)*, Anaheim CA, September 30-October 3, **2010**.
31. Research and Teaching at CU: A Latina Faculty Perspective, given at *Latino Preview*, an evening program geared toward recruiting Denver area Latino/a students to the University of Colorado at Boulder, Denver CO, November 16, **2010**.
32. Diversity and Engineering at CU. *CU Leadership, Excellence, Achievement, and Diversity (CU-LEAD) Alliance*, Boulder CO, September 15, **2010**.
33. An Overview of Considerations for Application to Graduate School in the Sciences, Math and Engineering, University of Colorado *Summer Multicultural Access to Research Training (SMART) Program*, July 16, **2010**.
34. Keynote Address at First Annual Gala of the *Society of Hispanic Professional Engineers and Mexican American Engineers and Scientists (SHPE/MAES)* CU Chapter, Boulder CO April 22, **2010**.
35. From Independent Scholar to Socially-Engaged Leader, invited talk at the *Advancing Hispanic Excellence in Technology, Engineering, Math and Science (AHETEMS)* National Institute for Leadership Advancement of the Society of Hispanic Professional Engineers (SHPE), Dallas TX, August 7 **2009**.
36. Women of Color in Engineering: Lessons Learned. Conference of the *National Association of Multicultural Engineering Program Advocates (NAMEPA)*, Los Angeles, CA, February 27, **2009**.
37. Why Study Math? – Engineering: Doing Cool Stuff for a Living. *Ulysses Grant High School*, Van Nuys, CA, February 26, **2009**.
38. Careers in Engineering. UCLA Conference of the *Association of Professionals and Students*, Los Angeles, CA, June 28, **2008**.
39. One Vision on How to Educate the Engineer of the Future. Engineering School, *Smith College*, February 22, **2008**.
40. U.S. Latino Engineers in Academia. Keynote speech at the 24th Annual Awards and Installation Banquet of the *Society of Hispanic Professional Engineers*, California State Polytechnic University, Pomona, San Dimas CA, April 27, **2007**.

41. Aerosol Science and Engineering for the Study and Protection of Human Health. *Adelante Workshop, Annual Conference of Mujeres Activas in Letras y Cambio Social*, Santa Cruz CA, August 4, **2006**.
42. Careers in Engineering for English Learners. *English as a Second Language Program* at Ulysses S. Grant High School, Van Nuys, CA, March 16, **2006**.
43. The Study of Air Pollution and Its Relation to Human Health: A Multidisciplinary Approach, invited talk given at the *Minority Access to Research Careers, Undergraduate Science Training and Research (MARC U*STAR) Program* at California State University, Northridge, Northridge, CA, March 26, **2004**.
44. Balancing Home, Work and Culture: Issues Confronting Minority Scientists, *Society for the Advancement of Chicanos and Native American Scientists (SACNAS) National Conference*, Albuquerque, NM, October 4, **2003**.
45. Graduate School and the GEM Consortium. *SHPE National Leadership Institute*, Phoenix, AZ July 28, **2001**.
46. Choosing the Best M.S. or Ph.D. Program for You. National Technical and Career Conference of the *Society of Hispanic Professional Engineers*, Washington, D.C., January 28, **2000**.

Media appearances

1. Impact of the Government Shutdown on Scientific Work, Science Friday, National Public Radio, January 11, **2019**.
2. Working with Navajo Nation for Cleaner, Healthier Heat. *EPA Science Matters Magazine*, Volume 5, Number 1, August **2014**.
3. Engineering Healthy and Sustainable Solutions, *SACNAS Science Video Podcast: Exploring the lives and research of SACNAS scientists*. February **2014**.
4. Featured in newspaper article in the Boulder Daily Camera, Fall **2012**.

VII. Awards and Honors

1. Fulbright Senior Specialist (Environmental Sciences), U.S. Department of State (2011-2017).
2. David M. Darrin '40 Counseling Award, for “a faculty member who has made unusual contributions to the personal counseling of students”, awarded by the *Phalanx Honor Society* at Rensselaer Polytechnic Institute (2009).

3. Second place, 2009 International Latino Book Award, Best Biography for “Paths to Discovery: Autobiographies from Chicanas with Careers in Science, Mathematics and Engineering”.
4. First prize, (co-PI) third annual ARCHITECT magazine R+D Awards for “Active Phytoremediation Wall System”, August 2009.
5. Rensselaer NSF-RAMP UP (ADVANCE) Career Campaign Award “in recognition of outstanding scholarship and early career achievement” (March 2007).
6. Yerby Postdoctoral Fellowship, Harvard School of Public Health, (first engineer recipient) (7/01- 6/03).
7. Minority Postdoctoral Fellowship, University at Albany, S.U.N.Y. (first engineer recipient) (9/98 –8/99).
8. First Chicana PhD graduate in Environmental Engineering Program at Stanford University, 1999.
9. Carl F. Green Scholarship and Peter Lacey Scholarship (9/94 – 6/95).
10. National Consortium for Graduate Degrees for Minorities in Engineering and Science (GEM) – Ph.D. fellowship (9/91 – 9/92).
11. National Consortium for Graduate Degrees for Minorities in Engineering and Science (GEM) – M.S. fellowship (9/89 – 12/90).
12. C.S.U., Northridge, Educational Equity Program Outstanding Senior Award (Engineering) (8/88 –5/89).
13. C.S.U., Northridge, graduation with Honors (Cum Laude), May 1989.
14. C.S.U., Northridge, Student Government, Vice-President, 1989.
15. C.S.U., Northridge, Student Senate, Senator of the Year Award, 1988.
16. C.S.U., Northridge, Student Senate, Senator (Engineering), 1988.
17. U.S. Ulysses Grant High School, Outstanding Senior Award, Van Nuys, CA, May 1983.
18. U.S. Ulysses Grant High School, (first Hispanic) Valedictorian, Van Nuys, CA, June. 1983.

VIII. Teaching

Teaching at CU

1. AREN 2110: Thermodynamics.
 - a. Fall 2011 (enrollment: 109)

- b. Spring 2013 (enrollment: 35)
 - c. Spring 2014 (enrollment: 30)
 - d. Spring 2015 (enrollment: 54)
 - e. Spring 2016 (enrollment: 54)
 - f. Spring 2017 (enrollment: 55)
 - g. Spring 2018 (enrollment: 70)
2. COEN 1410: Design for Sustainable Communities
 - a. Spring 2015 (enrollment: 11)
 - b. Spring 2016 (enrollment: 5)
 - c. Spring 2017 (enrollment: 8)
 3. GEEN 1400: Freshman Engineering Projects
 - a. Spring 2011 (enrollment: 30)
 - b. Spring 2012 (medical leave)
 - c. Fall 2012 (enrollment: 32)
 - d. Fall 2013 (enrollment: 29)
 4. FYSM 1000: First Year Seminar: Building Sustainable Communities
 - a. Fall 2017 (enrollment 24)
 - b. Fall 2018 (enrollment 19)
 5. FIG FYSM: Focus Interest Group: Building Sustainable Communities and Cultures
 - a. Fall 2017 (enrollment 24)
 6. CVEN 4834/5834: Special Topics: Fundamentals of Air Quality Science and Engineering (new course)
 - a. Fall 2010 (enrollment: 5)
 - b. Fall 2011 (enrollment: 8)
 7. CVEN 4554/5554: Fundamentals of Air Quality Management (new course)
 - a. Fall 2013 (enrollment: 9)
 - b. Fall 2014 (enrollment: 16)
 - c. Fall 2015 (enrollment: 16)
 - d. Fall 2016 (enrollment: 12)

Other Teaching

1. Bilingual Workshop (12 hours): “Calidad del Aire en Intramuros” (Indoor Air Quality), Universidad Autónoma de Baja California, Tijuana, Mexico, August 21-23, **2017**.
2. Lectures on: 1) Introduction to Thermosciences and 2) Home Energy Use and Energy Audits, given at the NSF Tribal Colleges and Universities Program (TCUP) Summer Intern Program, Diné College, Tsaile AZ, May 31, **2017**.
3. Lectures on: 1) Responsible Conduct of Research, 2) Introduction to Thermosciences and 3) Home Energy Use and Energy Audits, given at the NSF (TCUP) Summer Intern Program, Diné College, Tsaile AZ, June 2 and 3, **2016**.

4. Director of Research Experiences for Undergraduates (REU) Site: Environmental Sustainability. Coordinated program, including weekly seminars/workshops for student cohorts. Taught workshops on Responsible Conduct of Research, Professional Skills and Technical Writing, University of Colorado Boulder (Summers of **2013, 2014, 2015**).
5. Indoor Air Quality and Health in the Navajo Nation. Workshop taught at BOLD Center ASPIRE (Achieving Student Performance, Interest and Retention in Engineering) Summer Bridge, University of Colorado Boulder, June 27, **2014**.
6. Bilingual workshop: “Herramientas de Modelaje en Contaminación Intramural (Modeling Tools in Indoor Pollution)” in graduate course *Energy and Environmental Modeling*, Universidad de La Salle, sede Chapinero, Bogotá, Colombia, April 4, **2014**.
7. Bilingual course: “Caracterización y Control de la Contaminación del Aire Intramural” (Characterization and Control of Indoor Air Pollution), Universidad de La Salle, sede Chapinero, Bogotá, Colombia. Individual Workshops:
 - a. Casos Específicos de Contaminación Intramural: Modelaje (Specific Cases of Indoor Air Pollution: Online Tools). March 28, **2014**.
 - b. Mecanismos de Control de Contaminantes del Aire Intramurales (Control Mechanisms of Indoor Air Pollutants), March 27, **2014**.
 - c. Medición de Contaminantes del Aire en Ambiente Intramural (Measurement of Indoor Air Pollutants). March 25, **2014**.
 - d. Introducción a la Problemática de la Contaminación del Aire Intramural (Introduction to Indoor Air Pollution). March 25, **2014**.

Teaching at RPI

1. ENGR 2050: Introduction to Engineering Design
 - a. Spring 2004 (enrollment: 12)
 - b. Spring 2005 (enrollment: 11)
 - c. Spring 2006 (enrollment: 19)
 - d. Spring 2007 (enrollment: 27)
 - e. Spring 2008 (enrollment: 26)
 - f. Spring 2009 (enrollment: 26)
2. ENVE 4330: Introduction to Air Quality Control
 - a. Fall 2005 (Maternity leave)
 - b. Fall 2006 (enrollment: 25)
 - c. Fall 2007 (enrollment: 15)
 - d. Fall 2008 (enrollment: 19)
 - e. Fall 2009 (enrollment: 17)
3. ENVE 4330: Atmospheric Pollution
 - a. Fall 2004 (enrollment: 15)

4. ENVE 6961: Airborne Particles: from Nanomaterials to Health Effects
 - a. Spring 2007 (enrollment: 6)

IX. Student Supervision

A. Undergraduates at CU and Diné College (45)

1. Adam Nguyen (Summer 2018 – UROP; Fall 2017 – Spring 2018, Discovery Learning Apprenticeship, DLA)
2. Jeri Garfield (Summer 2018 – Spring 2019 – TCUP, Diné College)
3. Frederick Lee (Summers 2018, 2017 – TCUP, Diné College)
4. Feng Xiang (Spring 2017, Fall 2017, Spring 2018 – Ind. Study; Sum 2017 – grant)
5. Janice Trinh (Summer 2017 – Spring 2018 – UROP)
6. Jade Foley (Spring 2018)
7. Myra Badonie (Summer – Fall 2017 – TCUP, Diné College)
8. Jalissa Roy (Summer 2017 – TCUP, Diné College)
9. Chad Randall (Summer 2017 – TCUP, Diné College)
10. Carrie Fendrick (Winter 2016 – Spring 2017)
11. Yousef Al-weqayyan (Summer 2016-present)
12. Chantil Kee (Summer 2016 – TCUP, Diné College)
13. Royce Brice (Summer 2016 – TCUP, Diné College; Spring 2016 – CU grant).
14. Jemal Imam (Spring 2016– Independent Study; Summer 2016 – UROP).
15. Nicolás Lozano-Ordoñez (Fall 2015-Spring 2016, DLA)
16. Lea Connors (Fall 2015-Spring 2016, DLA)
17. Frances Marlin (Summer 2015 – REU)
18. Sheree Sam (Summer 2015 – REU, Diné College)
19. Tasha Nez (Summer 2015; Summer 2015 – REU, Diné College)
20. Jesús Alvarez (Spring 2015; Summer 2015 – REU)
21. Germain Alvarez (Spring 2015)
22. Sergio Lemos (Spring 2015)
23. Kimberlee Ott (Spring – Summer 2015; UROP)
24. Charles James (Summer 2014 – REU, Diné College)
25. Jason Schenandoah (Summer 2014 – IMPART; Fall 2014-Sp 2015, DLA)
26. Dylan Warburg (Fall 2014-Spring 2015, UROP)
27. Madison Sankovitz (Fall 2014-Spring 2015 – DLA)
28. Megan Matteazzi (Spring 2014 – Fall 2014)
29. Christella Suwongso (Spring 2014 – Spring 2015)
30. McKenzie Baker (Fall 2013)
31. Basheer Mohamed (Fall 2013)
32. Ashlyn Norberg (Summer 2013-Spring 2014 – Independent Study)
33. Luis E. Escobedo (Summers 2012 and 2013 – REU)
34. John Phipps (Fall/Spring 2011-2012, DLA)
35. Alexander Archuleta (Summer 2011-REU)

36. Nina Hwang (Summer 2011-REU)
37. Aleksandra Guerra (summer 2011, Summer Multicultural Access to Research Training program, SMART)
38. Sam Acerra, (Summer 2011, EEF funding/ Peru trip to implement solar water heater from GEEN1400)
39. Harry McElroy, (Summer 2011, EEF funding/ Peru trip to implement solar water heater from GEEN1400)
40. Jacob Winey (Summer 2011, EEF funding/ Peru trip to implement solar water heater from GEEN1400)
41. Erica Brandt (Fall 2010- Spring 2011, DLA)
42. Bryce Lopez (Spring 2011-UROP)
43. Amalia Lopez (Fall/Spring 2010-2011; Research funding, UROP)
44. Maria Luna (Fall/Spring 2010-2011, Research funding)
45. Natalia Vasquez-Rivera (summer 2010, SMART program)

B. Undergraduate at RPI (20)

1. Ken Nowak
2. Rebecca McMahan
3. Heather Martin
4. Rebecca Moore
5. Rebecca Fogerty
6. Karel Schenebele
7. Brandon Graver
8. Theodore Tablante
9. Tara Clancy, (Peru '07)
10. Erika Auquilla, (Peru '08)
11. Victoria Carley
12. Michael Wade
13. Tim Shattuck
14. Robert Rosario
15. Grant Bouchet, (Peru '08)
16. Xiao Chen (Peru '08)
17. Robert Schmit
18. Sarah Phelan (Peru '08)
19. Santiago Salazar (Peru'09)
20. Phillip Schneider (Peru'09)

C. Masters

1. Naomi Chang (Fall 2017 – present) MS (CU, Env. Engr.)
 - i. Proposed title: Evaluation of Heating Stove Changeout Program in the Navajo Nation: Pilot Studies.

2. Carolina Aguilar-Dodier (01/2017 – 2018) UABC Tijuana Mexico, Chemical Science and Engineering, EDC topic.
 - i. Proposed Title: Evaluación Espacial y Temporal de H₂S, SO₂ y NH₃ de campo geotermal en Cerro Prieto, Mexico. (Space and temporal evaluation of H₂S, SO₂ and NH₃ from geothermal field Cerro Prieto, Mexico.)
3. Sankar Ravichandran (Fall 2015 – Fall 2016) MS (CU, Env. Engr.)
4. Deisy Toledo (Summer 2015–Summer 2016) *MS completed* (UABC Tijuana Mexico, Chemistry)
 - i. Thesis title: Seasonal Evaluation and Characterization of Atmospheric Carbon Compounds in Tijuana, Baja California, Mexico.
5. Denise Mauney (01/2014 – 07/2016) *MS completed* (CU, Architectural Engr./EDC)
 - i. Thesis title: Experimental Study of Active Flow on a Photocatalytic Material for Air Quality Applications.
6. Pere Herrero Palau (Fall 2015 – Spring 2016) *MS completed* (UPC Barcelona Tech, Civil Engineering, EDC topic)
 - i. Project title: Design of Solar Thermal Systems for Developing Communities.
7. Anne Wrobletz (01/2013 – 11/2015), *MS completed* (CU, Env. Engr./EDC)
 - i. Thesis title: Formaldehyde Sorption and Biological Activity in Porous Media.
8. Barbara J. Ward (01/2012 – 12/2013). *MS completed* (CU, Env. Engr./EDC)
 - i. Thesis title: Human Fecal Biochar Briquettes from the Sol-Char Toilet for Use as a Solid Fuel in the Developing World.
9. Natalie Hull (08/201 – 05/2013), *MS completed* (CU, Env. Engr.)
 - i. Project titled: Interactions of Nanoparticles with Blood Proteins and Macrophages.
10. Brett W. McQuillan (08/2010 – 08/2013), *MS completed* (CU, Architectural Engr.)
 - i. Thesis titled: Synthetic Jet Flow Control in the Indoor Environment.
11. Erin Lennox (08/2008 –12/2011), *MS completed* (RPI, ME, EDC topic)
 - i. Thesis titled: Indoor Air Pollution from Solid Cooking Fuels: A Field Study in a Peruvian Highland Community and Characterization of a New Aerosol Impactor.
12. Michael Allard (08/2008 – 08/2011), *MS completed* (RPI, ME)
 - i. Thesis titled: Use of Synthetic Jets to Control Aerosol Dispersion in a Room.
13. Zhicheng Wei (08/2007-12/2010), *MS (non-thesis) completed* (RPI, Env. Engr.)
14. Patricia M. Fritz (2005 – 2008), *MEng (non-thesis) completed* (RPI, Env. Engr.)
15. Jennifer Ziegler (2005-2007), *MS completed* (RPI, ME)
 - i. Thesis titled: Active Control of Air Quality Using Synthetic Jet Actuators

D. Doctoral

1. Aaron Lamplugh (01/2016-08/2019 expected) CU, Mechanical Engr., EDC topic.

- i. Dissertation: Volatile Organic Compounds: Exposure and Mitigation in Colorado Nail Salons.
2. Rita Zurita (08/2017 – 12/2019 expected) UABC Tijuana Mexico, Chemical Science and Engineering, EDC topic.
 - i. Dissertation: Evaluación de Potencial Oxidativo Asociado a PM2.5. en Peatones Durante el Cruce Fronterizon en la Garita Tijuana-San Isidro. (Evaluation of Oxidative Potential Associated with PM2.5 on Pedestrians During the Tijuana Mexico-San Ysidro US Border Crossing).
3. Mariela Juarez Ruiz (08/2017 – 12/2019 expected) UABC Tijuana Mexico, Chemical Science and Engineering, EDC topic.
 - i. Dissertation: Factores de Riezo de Infectocontagiosidad de Bioaerosoles en Empleados de Plantas Tratadoras de Aguas Residuals. (Risk Factors from Infectious and Contagious Bioaerosols for Workers at Wastewater Treatment Plants).
4. Wyatt Champion (06/2013-04/2017). CU, Environmental Engr., EDC topic
PhD completed
 - i. Dissertation: Navajo Home Heating Practices, their Impacts on Indoor Air Quality and Human Health and a Framework to Identify Sustainable Solutions.
5. Miles Abarr (06/2013-07/2016) CU, Mechanical Engr., *PhD completed*
 - i. Dissertation: Characterization and Optimization of a Hybrid Pumped Thermal Energy Storage and Bottoming Cycle.
6. Francisco Barraza (10/2011-07/2015). Pontificia Universidad Católica de Chile, Chem. Engr. and Bioprocesses, EDC topic, *PhD completed*
 - i. Dissertation: Material Particulado Fino: Contribución de Fuentes Intradomiciliarias y Ambientales in Santiago Chile. (Fine Particulate Matter: Contribution from Indoor and Ambient Sources in Santiago, Chile).
7. Ahu Aydogan (8/2008 - 5/2012), RPI, Architecture, *PhD completed*
 - i. Dissertation: Building-Integrated Active Modular Phytoremediation System.
8. Zhicheng Wei (8/2007 – 12/ 2010), RPI, Environmental Engr., *PhD completed*
 - i. Dissertation: An Investigation of Toxicity and Immune Effects of Common Metal Oxide Nanoparticles.
9. Post-doctoral
 - a. Mateo Muñoz, 2016-2017 (CU, Engineering Education)
 - i. Project: Teaching and learning best practices at the intersection of entrepreneurship, sustainability, engineering design, and diversity
 - b. Xiurong Wang, 2014-2015 (CU, Env. Engr.)
 - i. Project: Phytoremediation for Air Quality Applications
 - c. Sondra Teske, 2012-2013 (CU, Env. Engr.)
 - i. Project: Inflammatory Effects of Metal Oxide Nanoparticles
 - d. Zhicheng Wei, 2011 (CU, Env. Engr.)
 - i. Project: Toxic effects of Metal Oxide Nanoparticles

X. Service

Professional Affiliations

1. American Association for Aerosol Research (1992-present)
2. Association of Environmental Engineering and Science Professors (2003-present)
3. International Society of Indoor Air Quality and Climate (2006-present)
4. International Society of Aerosols in Medicine (2006-present)
5. American Society of Engineering Education (2005- present)
6. American Society of Civil Engineers (2003-2011)
7. American Society of Mechanical Engineers (2008-2010)
8. Society of Women Engineers (2004 – 2010)
9. International Society of Exposure Analysis (1998-2002)
10. Society of Hispanic Professional Engineers (1983-present, life-member)
11. Society for Advancement of Chicanos and Native Americans in Science (1999-present, life-member)
12. Tau Beta Pi Engineering Honors Society, (1988-present)

Professional National and International Service (2010 to present)

1. Volunteer Work for National and International Conferences
 - a) Session Chair, American Association for Aerosol Research conference, 2018.
 - b) Session Chair, American Association for Aerosol Research conference, 2017.
 - c) Session Chair, American Association for Aerosol Research conference, 2016.
 - d) Judge, Poster Competition, American Association for Aerosol Research, 2016.
 - e) Session Chair, American Association for Aerosol Research conference, 2015.
 - f) Reviewer, Proceedings Papers, Healthy Buildings USA Conference, 2015
 - g) Judge, Poster Competition, American Association for Aerosol Research, 2015
 - h) Session Chair, American Association for Aerosol Research conference, 2013
 - i) Judge, Poster Competition, American Association for Aerosol Research, 2013
 - j) Reviewer, Proceedings Papers, Second International Conference on Building Energy and Environment, 2012
 - k) Judge, Poster Competition, American Association for Aerosol Research, 2012
 - l) Judge, Poster Competition, Association of Environmental Engineering and Science Professors, 2011
 - m) Judge, Poster Competition, American Association for Aerosol Research, 2011
 - n) Session Chair, American Association for Aerosol Research conference, 2011
 - o) Session Chair, American Association for Aerosol Research conference, 2010
 - p) Reviewer, Center for Sustainable Engineering Electronic Library, Carnegie Mellon University
 - q) Moderator, Energy Justice Conference, Boulder CO, November 5, 2010
 - r) Judge, Poster Competition, Society for the Advancement of Chicanos and Native Americans in Science, 2010

- s) Judge, Poster Competition, American Association for Aerosol Research, 2010
2. Symposia and Workshops Organized
 - a) *“Environmental Engineering for the 21st Century: Increasing Diversity and Community Participation to Achieve Environmental and Social Justice”*, Association of Environmental Engineering and Science Professors, Tempe AZ, May 14, **2019**. Coordinating efforts from multiple faculty groups to present a full-day workshop on how to improve ethnic diversity and community participation in Environmental Engineering and to develop a plan of action.
 - b) *“Air Quality in Megacities: from Sources to Control”* Special Symposium, American Association for Aerosols Research, International Aerosols Conference, St. Louis MO, September 2-7, **2018**. Coordinated a total of 7 symposium sessions and nearly 100 abstracts, as well as secured funding to support travel for several researchers from developing countries (i.e., Brazil, Colombia, China, and India).
 - c) "Air Quality Challenges for the Environmental Engineer of 2050", Association of Environmental Engineering and Science Professors, National Conference, Golden CO, **2013**. Coordinated a symposium about Air Quality research projects, a relatively underrepresented area of research in this Association.
 3. Committee Work
 - a) Awards Committee member, American Association for Aerosol Research, AAAR, (2018-2021).
 - b) International Scientific Advisory Committee for INDOOR AIR 2018.
 - c) Finance Committee member, AAAR, (2017-2020).
 - d) Chair of Membership Committee, AAAR (2016-2017); member (2015-2018)
 - e) Chair of Health Effects Working Group, AAAR, (2015-2016); Co-Chair (2014-2015)
 - f) Chair of Internet Communications Committee, AAAR (2015-2016); member (2013-2016)
 - g) National Secretary, AAAR (2008-2011)
 - h) Chair of Education Committee, AAAR (2008-2009)
 - i) Chair of Indoor Air Working Group, AAAR (2007-2008)
 - j) Chair of Tutorials, AAAR (2007-2008)
 - k) Board of Directors, AAAR (2004-2007)
 4. Member of the Senior Fulbright Specialists Program in Environmental Science, Council for the International Exchange of Scholars and the U.S. Department of State (2011-2017).
 5. Workshops Attended
 - a) CU Inclusive Pedagogy Seminar (invitation only), Boulder CO, January 11, 2017.
 - b) NSF CAREER Workshop, AEESP Conference, Tampa FL, July 10, 2011
 - c) Partnership for the Relief of Energy Poverty, inaugural meeting, Boulder CO, April 7, 2011.
 - d) Sustainable Visions TeachingLab Workshop, National Collegiate Inventors and Innovators Alliance, Fort Collins CO, June 13-17, 2011

6. Member of project advisory committee
 - a) Heating Alternative Analysis Project, Diné College, Shiprock NM (2012-2016)

7. Member of review panel for proposals
 - a) National Science Foundation
 - i) February 2015 (RED)
 - ii) April 2013 (REE)
 - iii) May 2011 (CREST) (by mail)
 - iv) June 2010 (CBET)
 - b) EPA
 - i) P3 Phase 2 program, Summer 2017
 - ii) STAR panel 2010
 - c) University of Colorado, Boulder
 - i) Undergraduate Research Opportunity Program, Spring 2017
 - ii) Innovative Seed Grant review panel, March 2014
 - d) The Leverhulme Trust, Spring 2017
 - e) AAAS
 - i) Research Competitiveness Program, June 2010
 - f) Canadian Institutes of Health Research
 - i) January 2012
 - g) New Jersey Agricultural Experiment Station
 - i) October 2013

8. Reviewer for journals
 - a) Aerosol Science and Technology
 - b) Air Quality, Atmosphere and Health
 - c) American Chemical Society
 - d) Building and Environment
 - e) Chemosphere
 - f) Environmental Engineering and Science
 - g) Environmental Pollution
 - h) Environmental Science and Pollution Research
 - i) Environmental Science and Technology
 - j) Industrial and Engineering Chemistry Research
 - k) Inhalation Toxicology
 - l) Journal Indoor Air
 - m) Journal of Atmospheric Research
 - n) Journal of Air and Waste Management Association
 - o) Journal of Fluids Engineering
 - p) Journal of Experimental Nanoscience
 - q) Journal of Hazardous Materials
 - r) Science of the Total Environment
 - s) Sustainable Environmental Research

t) Toxicology

University Service

1. Scholarship Committee, College of Engineering and Applied Science, (2011-present).
2. Awards Committee, Department of Civil, Environmental and Architectural Engineering, (2012-present).
3. Awards Committee, Environmental Engineering Program, (2013-present).
4. Faculty Advisor, Society of Hispanic Professional Engineers/Mexican American Engineers and Scientists, CU Chapter (2010- present).
5. Operations Committee, Department of Civil, Environmental and Architectural Engineering (2010-2011).
6. Promotion of STEM careers and Diversity in STEM via presentations within the University of Colorado, the local community and around the country. Presentations listed in the **Outreach Presentations Promoting Diversity in Engineering** section.

Community Service

I am also very involved at my parish, *St. Martin de Porres Catholic Church*, in Boulder Colorado, where I try to be a bridge between the Latino and the Anglo communities. I serve as *Extraordinary Minister* in Sunday masses. I also actively seek opportunities to promote integration and acceptance as well as opportunities to use my technical training to benefit our community in general. For example, in December 2015, 2016, and 2017, I coordinated adult members of our parish on a celebration of Our Lady of Guadalupe Feast, including Spanish singing at our mass and a Mexican Brunch with live cultural entertainment. In 2016, the Brunch raised funds to upgrade the lighting in our parish and general maintenance. I am also interested in working with the younger members of our community to promote education in energy and technology.