DONGYANG DENG (SUNNY), PH.D.

ASSISTANT PROFESSOR

North Carolina Agricultural and Technical State University
Greensboro, NC 27411
Cell: 304.906.6026
ddeng@ncat.edu

HIGHLIGHTS

- Studied fate and transport of contaminants and chemicals in the aquatic environment and in environmental trace analysis of organics, inorganics (**metals, salts, and nutrients**) in environmental and microbiological samples.
- Direct tasks of lab management including maintaining equipment, updating material safety data sheet, and lab chemical management and disposal.
- Completed analytical chemistry experiments and environmental microbiology experiments (DNA extraction, cloning and sequencing, and phylogenetic tree development) for 5-6 years, and operated IC (Ion chromatography), GC-MS (Gas chromatography–mass spectrometry), AAS (Atomic absorption spectroscopy), ICP-MS (Inductively coupled plasma mass spectrometry, SEM (Scanning Electron Microscope), XPS (X-ray photoelectron spectroscopy), and XRD (X-ray powder diffraction).
- Gained experience in analytical methods development, chemical cycling, bioavailability and modeling, preparing grant proposal, publishing peer-reviewed papers and engaging in academic mentoring.
- Current Engineer-in-Training (FE/EIT), on-track to obtain PE licensure.

EDUCATION AND CREDENTIALS

DOCTOR OF PHILOSOPHY (PH.D.) IN **CIVIL AND ENVIRONMENTAL ENGINEERING**, 2017
West Virginia University, WV
Dissertation: Development of Innovative Co-Treatment Technologies for Acid Mine Drainage and Municipal Wastewater Management in Energy Producing Regions

BACHELOR OF SCIENCE (B.SC.) IN **ENVIRONMENTAL SCIENCE**, 2008
China University of Mining and Technology (Beijing)
Thesis: Urban Air Pollution Control

ENGINEER-IN-TRAINING (FE/EIT) CERTIFICATION, 2013
NCEES, West Virginia

TRAINING FOR HAZARDOUS MATERIALS TRANSPORTATION SECURITY
Department of Transportation, Certificate#411190-985

OSHA 10hour, OSHA 30hour, HAZWOPER 40hour (in the process)

RESEARCH EXPERIENCE

NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY, GREENSBORO, NC, SEPTEMBER 2017-
ASSISTANT PROFESSOR

RESEARCH TOPIC:

SWINE WASTEWATER MANAGEMENT

SULFIDOGENIC WASTEWATER TREATMENT IS INTEGRATED WITH ALGAL BIOMASS PRODUCTION TO SIGNIFICANTLY REDUCE ORGANICS, NITROGEN AND PHOSPHORUS LEVELS IN LIVESTOCK WASTEWATER WHILE HELPING TO REDUCE GREENHOUSE GAS EMISSIONS

PFAS REMOVAL

PFAS HAS RAISED CRITICAL CONCERN IN THE AREAS WHERE IT HAS BEEN PRODUCED AND KNOWN TO HAVE POTENTIAL RISKS TO HUMAN HEALTH. AN INNOVATIVE NANOFIBER WAS DEVELOPED TO EFFICIENTLY REMOVE AND CONCENTRATE GENX.

WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV, USA, AUGUST 2009 TO MAY 2017
GRADUATE RESEARCH ASSISTANT SCIENTIST

Research topic: Treatment of Synthetic Municipal Wastewater using Recycled Sludge Containing Iron and Sulfur (Study on Water and Wastewater Treatment processes), July 2012 to Present

- Investigate the potentials of wastewater treatment using continuously-fed bioreactors and use the recycled sludge from biological reactors to make up for the sulfate and iron dose amount needed.
- Examine and optimize the efficiency of treatment in terms of COD, sulfate, nutrient and metals removal through the variation of hydraulic retention time, recirculation rate, iron dose amount and COD/Sulfate ratios.
- Conclude the fate of iron, sulfur through the system and study surface chemistry and morphology of sludge.

- Compose and publish peer-reviewed journals and contribute to relevant grant proposal preparation and writing.

Research topic: Acid Mine Drainage and Municipal Wastewater Co-treatment, August 2009 to April 2012

- Devised comprehensive plan for treating combined sewage and mine discharges in Dunkard Creek, PA.
- Characterized wastewater parameters (COD, sulfate, Acidity/alkalinity, solids, nutrients, metals).
- Executed bench-scale experiments and generated conceptual design of full-scale systems and implementation recommendations.
- Conducted microbial sulfate reduction reaction kinetics study under different COD/Sulfate ratios.
- Phylogenetic analyses and comparison of microbial community in reactors with different COD/Sulfate ratios.

Research topic: Produced water treatment (desalination process) using flow-through microbial fuel cells, January 2010 to January 2011

- Constructed microbial fuel cells and measured treatment efficiency in terms of chloride concentrations.

CHINA UNIVERSITY OF MINING AND TECHNOLOGY, BEIJING, CHINA, JANUARY 2006 TO JANUARY 2007
UNDERGRADUATE RESEARCH ASSISTANT

- Researched and observed the effects of ozone on reducing membrane fouling.
- Tested analysis of the raw water quality indicators, optimization of process parameters test, and the influence of ozone on bacteria in secondary effluent.

TEACHING AND MENTORING EXPERIENCE

NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY, GREENSBORO, NC, AUGUST 2017-
ASSISTANT PROFESSOR

Year	*Semester*	*Course*	*Enrollment*	*Evaluation*
2017	*Fall*	*EHS311- Hazardous Materials for Safety Professionals*	*5*	4.46/5
		EHS678- Experiential Education	*2*	4.83/5
2018	*Spring*	*EHS394- Environmental Health and Safety*	*22*	4.37/5
2018	*Fall*	*EHS311- Hazardous Materials for Safety Professionals*	*11*	4.68/5
2019	*Spring*	*EHS394 Environmental Health and Safety*	*23*	4.65/5
2019	*Spring*	*EHS471 System Safety and Other Analytical Methods*	*6*	4.48/5
2019	*Fall*	*EHS 469 Environmental Management*	*16*	4.49/5
2019	*Fall*	*EHS311 Hazardous Materials for Safety Professional*	*9*	4.46/5
2019	*Fall*	*EHS220 Safety and Security Management*	*20*	4.6/5
2020	*Spring*	*EHS711 Current Issues in Environmental and Occupational Health*	*4*	4.33/5
2020	*Spring*	*EHS214 Principles of Fire Prevention*	*13*	4.64/5
2020	*Spring*	*AST997 Doctoral Dissertation*	*1*	5/5
2020	*Spring*	*EHS394 Environmental Health and Safety*	*14*	4.89/5
2020	*Spring*	*EHS436 Environmental Wastewater Treatment*	*12*	4.56/5

NEW COURSES DEVELOPED
EHS 436 ENVIRONMENTAL WASTEWATER TREATMENT
EHS 469 ENVIRONMENTAL MANAGEMENT

WEST VIRGINIA UNIVERSITY, INTRODUCTION THE ENVIRONMENTAL ENGINEERING, MORGANTOWN, WV, USA, 2009 FALL, 2014 FALL, 2016 SPRING, 2017 SPRING
GRADUATE TEACHING ASSISTANT INSTRUCTOR

- Facilitated lab sessions of Introduction of Civil and Environmental Engineering for 4 semesters, delivered experiment instructions, generated handouts and standard procedure, provided instrument operation training, supervised lab safety, and developed new lab sessions.
- Set up and led testing of water/wastewater treatment pilot plants for column filtration and jar test coagulation.
- Supported ABET evaluation and assessed student learning outcomes.

DEPT. OF CIVIL AND ENVIRONMENTAL ENGINEERING, WEST VIRGINIA UNIVERSITY, MORGANTOWN, WV, USA, 2013 TO 2016
GRADUATE MENTOR

- Guided one undergraduate and one graduate student in water chemistry and microbiology experiments in terms of data collection and analysis.
- Steered the students in preparation and presentation of research findings.

FIELD EXPERIENCE

- Water sample and soil collection from natural streams, acid mine drainage sites and wastewater treatment plants (in Pennsylvania, Maryland and West Virginia).

RESEARCH PROPOSALS

- Principal Investigator (August 2017) Faculty Start-up Funds (**$90,000**)
- Principal Investigator (Jan 1 2022-August 2022) Wastewater Surveillance Project funded through North Carolina Office of State Budget and Management
  Funded- **$19,250**
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- Principal Investigator (October 1 2021-May 2022) Guilford County Wastewater Surveillance Project
  Funded- $174,458.00
- On-campus wastewater surveillance (Sep 2020-June 2021)
  Funded-**$250,000**
- Principal Investigator (March 2020-January 2022) NSF 2010398: Travel Grant for ICRS 2020 (Funded:**$30,000**)
- Principal Investigator (August 2017), A STEAM ACTIVATED! Program for Improving Self-Efficacy and Broadening Participation of Minority Middle-School Girls in Green Engineering. Proposal submitted to the Engineering Information Foundation in August 2017. Lead Principal Investigator is Dr. Andrea Ofori Boadu
  Funded- **$12,974.03**
- Principal Investigator (June 2019-August 2021). NSF I-Corps (1930356): NC2 Team Sustainable Polymer Nanocomposite.
  Funded - **$50,000**
- Principal Investigator (September 2019-August 2021). Environmental Enhanced Research Experience (E Cube Research) Program for Strengthening Sustainability Awareness of Minority Middle-School Girls.
  Funded - **$2,000**
- 2020 NC A&T Summer Research Seed Funding Program
  Funded-**$5,000**
- 2019 NC A&T Summer Research Seed Funding Program
  Funded-**$5,000**
- 2018 NC A&T Summer Research Seed Funding Program
  Funded-**$5,000**
- Co-Principal Investigator (August 2017) Engineering Modified Swine-Waste Bio-char as a novel and sustainable material for partial cement replacement. Proposal submitted to the National Science Foundation – Structural and Architectural Engineering Materials Program. Lead Principal Investigator is Dr. Andrea Ofori Boadu.
  Funding Requested - $389,067.60
- Principal Investigator (January 2018) Using Sulfidogenic Bioreactors to Treat Municipal Wastewater for Industrial Reuse. Pre-proposal submitted to Water Environment Research Foundation.
  Funding Requested- $142,439.35

- Co-Principal Investigator (February 2018) MRI: Acquisition of an automated flow injection analyzer equipped with ion chromatography for research and training in Engineering and Science. Proposal submitted to the National Science Foundation- Major Research Instrumentation (MRI). Lead Principal Investigator is Dr. Niroj Aryal.
  Funding Requested- $179,335
- Principal Investigator (July 2018) Contaminant Reduction, Biomass Production and Antibiotic Resistance Genes Investigation through an Integrated Wastewater Treatment Process. Pre-proposal submitted to Water Environment Research Foundation.
  Funding Requested- $150,000
- Co-Principal Investigator (August 2018) Collaborative Research: REU Site: Summer Undergraduate Research Experiences in Bioenvironmental Science and Biocomplexity. Proposal submitted to National Science Foundation. Lead PI is Dr. Manoj Jha
  Funding requested - $206,921.76
- Co-Principal Investigator (October 2018). Swine wastewater Research. Proposal submitted to National Science Foundation. Lead PI is Dr. Uchenna Anele
  Funding requested - $1,000,000
- Investigator (January 2019). MRI: Acquisition of an X-ray Diffractometer (XRD) for Multidisciplinary Materials Research and Education. Proposal submitted to National Science Foundation. Lead PI is Dr. Shyam Aravamudhan
  Funding requested - $422,148
- Co-Principal Investigator (January 2019). MRI: Acquisition of a liquid chromatography with tandem mass spectrometer for research and education in engineering and agriculture. Proposal submitted to National Science Foundation. Lead PI is Dr. Renzun Zhao
  Funding requested - $607,181
- Co-Principal Investigator (January 2019). Engineering Hog-Manure as a sustainable low permeable and sulfate-resisting partial cement replacement material for more durable concrete structures. Proposal submitted to DOD DA Army Corps of Engineers. Lead PI is Dr. Andrea Ofori-Boadu
  Funding requested - $492,058
- Co-Principal Investigator (January 2019). A STEM ACTIVATED! Research Experience Program for Strengthening the STEM Self-Efficacy and Persistence of Middle-School Girls. Proposal submitted to Smithfield Foods, Inc. Lead PI is Dr. Andrea Ofori-Boadu
  Funding requested - $551,964

PUBLICATIONS

Peer-reviewed Journal Articles

- Ahmed, M.; Anwar, R.; **Deng, Dongyang**; Garner, E.; Lin, L.-S. J. M. (2021) Functional Interrelationships of Microorganisms in Iron-Based Anaerobic Wastewater Treatment. 9, 1039.
- Mantripragada, S.; **Deng, Dongyang;** Zhang, L. J. C. (2021) Remediation of GenX from water by amidoxime surface-functionalized electrospun polyacrylonitrile nanofibrous adsorbent. 131235.
- ***Deng, Dongyang***; Lian-shin Lin; Andrea, Ofori-Boadu, Hydro Science & Marine Engineering (2020) Stream Monitoring and Preliminary Co-Treatment of Acid Mine Drainage and Municipal Wastewater along Dunkard Creek Area. https://doi.org/10.30564/hsme.v2i2.2448
- ***Deng, Dongyang***; Lamssali, M.; Aryal, N.; Ofori - Boadu, A.; Jha, M. K.; Samuel, R. E. Water Environment Research (2020) Textiles wastewater treatment technology: A review. **https://doi.org/10.1002/wer.1437**
- ***Deng, Dongyang***; Zhang, L.; Dong, M.; Samuel, R.; Ofori - Boadu, A.; Lamssali, M. Water Environment Research (2020) Radioactive Waste: A Review. **https://doi.org/10.1002/wer.1442**
- N Aryal, J Wood, I Rijal, ***Dongyang Deng***, MK Jha, A Ofori Boadu (2020) "Fate of Environmental Pollutants: A review", Water Environment Research, **https://doi.org/10.1002/wer.1404**
- Shobha Mantripragada, ***Dongyang Deng***, Lifeng Zhang (2020). (Oil absorption capability of electrospun carbon nanofibrous membranes having porous and hollow nanostructures). pp. 127069). Materials Letters.
- Monitoring, sampling, and automated analysis, N Aryal, ***Dongyang Deng***, MK Jha, A Ofori-Boadu, Water Environment Research 91 (10), 1288-1293
- Ofori-Boadu, A. N., ***Deng, D.,*** Stevens, C., Gore, K., and Borders-Taylor, I. (2019). Learning Experiences and Self-efficacy of Minority Middle-School Girls during a 'Bio-char Modified Cement Paste' Research Program at an HBCU.

Proceeding of the 2019 American Society for Engineering Education (ASEE) conference, Tampa, Florida. (June 16 – 19, 2019)

- ***Dongyang Deng***, Niroj Aryal, Andrea Ofori-Boadu, Manoj K Jha "Textiles Wastewater Treatment**", Water Environment Research**, Volume 90, page 1648-1662, https://doi.org/10.2175/106143018X15289915807353.
- ***Dongyang Deng***, Oliver Lin, Alex Rubenstein, Jennifer L. Weidhaas, and Lian-Shin Lin, "Elucidating biogeochemical transformations of Fe and S in an innovative iron-dosed anaerobic wastewater treatment process using spectroscopic and phylogenetic analyses", **Chemical Engineering Journal**, Volume 358, Pages 1208-1217, https://doi.org/10.1016/j.cej.2018.10.030.
- ***Dongyang Deng***, Lian-Shin Lin, "Continuous sulfidogenic wastewater treatment with iron sulfide sludge oxidation and recycle", **Water Research**, Volume 114, page 210-217 ISSN 0043-1354, http://dx.doi.org/10.1016/j.watres.2017.02.048.
- ***Dongyang Deng***, Jennifer L. Weidhaas, Lian-Shin Lin, "Kinetics and microbial ecology of batch sulfidogenic bioreactors for co-treatment of municipal wastewater and acid mine drainage", **Journal of Hazardous Materials**, Volume 305, 15 March 2016, Pages 200-208;http://dx.doi.org/10.1016/j.jhazmat.2015.11.041
- ***Dongyang Deng***, Lian-shin Lin, "Two-stage combined treatment of acid mine drainage and municipal wastewater", **Water Science and Technology**, Volume 67, Issue 5, February 2013, Pages 1000-1007; DOI: 10.2166/wst.2013.653
- Zhonghua Zhang, ***Dongyang Deng***, Dongyao Xu. 2007 Research on ozone controlling membrane pollution. Inner Mongolian Environmental Sciences, 19(4), 34-38.

Research Report

- "Comprehensive Plan for Treating Combined Sewage and Mine Discharges in Dunkard Creek," ***Dongyang Deng***, Lian-shin Lin, Potentials of Combined Treatment Method Analysis Project Final Report to Longview Power, LLC, Morgantown, WV, July, 2011.

Book Chapters

- Chapter of Electrospinning and Electrospun Nanofibers, 21ST CENTURY NANOSCIENCE BOOK, ***Dongyang Deng***, Lifeng Zhang*, 2020.
- "Application of Sewage Sludge in Industrial Wastewater Treatment" book chapter, Nov 2021, Dongyang Deng, Andrea Ofori-Boadu

INVENTION DISCLOSURE

Nano-engineered materials for efficient removal of PFAS from water, was submitted to office of IP Development and Commercialization in CY2020

PRESENTATIONS

- Oral presentation:
  1. Ofori-Boadu, A. N., Bock-Hyeng, C., ***Dongyang Deng***, Aryal, N., and Mohan, R. (2020). Preliminary Investigation into the Impact of Peanut-Shell Bio-Char on Cement Paste Properties. Presentation at the 2020 Virtual ATMAE and IAJC Joint Conference (November 4 - 6, 2020).
  2. Oral presentation "Controlled release and modeling of potassium permanganate embedded in Polyvinyl Acetate (PVAc) in Soil" Lamssali, Mehdi; Luster-Teasley, Stephanie; ***Dongyang Deng***, International Conference on Resource Sustainability – Cities, July 01-03, 2019, Adelaide, Australia
  3. Oral presentation "Biochemical transformations of iron and sulfur in an iron-dosed anaerobic wastewater treatment process with characterization and microbial community analyses" ***Dongyang Deng***, American Chemical Society, March 31-April 04, 2019, Orlando, FL
  4. Oral presentation "Biochemical transformations of Iron and Sulfur in an innovative Fe(II)-dosed continuous flow anaerobic wastewater treatment process" ***Dongyang Deng***, WRRI Annual Conference, March 21-22, 2019, Raleigh, NC

5. Oral presentation "Release Characteristics and Modeling of Controlled Release Potassium Permanganate embedded in Polyvinyl acetate (PVAC) within different Soil Media" Mehdi Lamssali, Stephanie Luster-Teasley, ***Dongyang Deng***, WRRI Annual Conference, March 21-22, 2019, Raleigh, NC
6. Oral presentation, NC State Global WaSH Cluster Mix and Match Networking Event (March 7th, 2019), ***Dongyang Deng***
7. Andrea Ofori-Boadu, ***Dongyang Deng*** "Assessing The Impact Of Arts-Infused Stem (Steam) Learning Experiences On Minority Middle-School Girls' Stem Self-Efficacy", QEM NSF INCLUDES: A National Summit , March 7-9, 2019, Baltimore, MD
8. "Combined Treatment of Acid Mine Drainage and Municipal Wastewater", ***Dongyang Deng***, The 3rd Yangzhou International Scholars Forum, December 21-24,2018, Yangzhou, Jiangsu, China
9. "Physiochemical Characterization of Swine-Manure Towards More Sustainable Engineering Applications" ***Dongyang Deng,*** Andrea Ofori-Boadu, Elham Fini, 6th IAJC International Conference October 11-14, 2018
10. "Learning Experiences of Minority Middle-School Girls During ART-Infused Research Experiences in Bio-Modified Cement pastes: A Grounded Theory Approach" Andrea Ofori-Boadu, Kayla Gore, ***Dongyang Deng***, Cheryl Stevens, 6th IAJC International Conference October 11-14, 2018
11. Panel facilitator "Strengthening STEM Identities Through Out-of-Classroom Learning Experiences" Andrea Ofori-Boadu, ***Dongyang Deng***, 6th IAJC International Conference October 11-14, 2018
12. "Utilizing Sulfidogenic Bioreactors for Sustainable Treatment Process" ***Dongyang Deng***, 2018 Huixian Young Scholars International Forum, June 21-23, 2018, Shanghai, China
13. "Phylogenetic and Kinetic Study for Co-Treatment of Municipal and Acid Mine Drainage Utilizing Sulfidogenic Bioreactors" ***Dongyang Deng***, 2018 Chinese Environmental Scholars Forum (CESF), May 19-20, 2018 in Duke University
14. "Presenting My Present Research Reality: Oral Presentation Coaching Session" ***Dongyang Deng***, in Advance IT April 30, 2018
15. "Development of Innovative Wastewater Treatment Technologies" ***Dongyang Deng***, in COST: Coffee and Conversations Event, Sep 28, 2017
16. "Combined Treatment of Acid Mine Drainage and Sewage: Moving toward a Sustainable Future of Wastewater Treatment for Mining Regions" ***Dongyang Deng,*** Hoil Park, and Lian-shin Lin, West Virginia University, Morgantown, WV, USA. Presented at 1st IWA Water, Climate and Energy Congress, Dublin, Ireland, May13-18, 2012

- Poster presentation:

1. ***Dongyang Deng*****.** (2020) Online vs. Traditional Education for STEM Students in HBCU. Presentation at the 2020 Virtual Conference on Transforming STEM Higher Education (November 5-7, 2020).
2. ***Dongyang Deng*****.** and Ofori-Boadu, A. N. (2020) Sulfidogenic Bioreactor as an Efficient Treatment Method for Agricultural Swine Wastewater. Presentation at the 2020 Virtual ATMAE and IAJC Joint Conference (November 4 - 6, 2020).
3. " Emerging Professional Identity Development in Freshman Architecture, Engineering, and Construction (AEC) Women", Andrea Ofori-Boadu, Victor Ofori-Boadu, Jacob Vanderpool, ***Dongyang Deng***, ATMAE & IAJC 2020 Joint Conference, October 7-9, 2020
4. Poster "Controlled Release Pellets embedded in Polyvinyl Acetate (PVAc) to release and Model KMnO4 within different Soil Media", Mehdi Lamssali, Stephanie Luster-Teasley, ***Dongyang Deng***, American Chemical Society, March 31-April 04, 2019, Orlando, FL
5. Poster "Sulfidogenic wastewater treatment with iron sulfide sludge oxidation and recycle process", ***Dongyang Deng,*** American Chemical Society, March 31-April 04, 2019, Orlando, FL
6. "Sulfidogenic wastewater treatment with iron sulfide sludge oxidation and recycle" ***Dongyang Deng***, WRRI Annual Conference, March 21-22, 2019, Raleigh, NC
7. "In-situ Controlled release and modeling of potassium permanganate embedded in Polyvinyl Acetate (PVAc) in Soil" Mehdi Lamssali, Stephanie Luster-Teasley, ***Dongyang Deng***, WRRI Annual Conference, March 21-22, 2019, Raleigh, NC
8. "Release Characteristics and Modeling of Controlled Release Potassium Permanganate embedded in PVAC within different Soil Media", Mehdi Lamssali, Stepahnie Luster-Teasley, ***Dongyang Deng***, Geo-Carolinas Conference 2019, March 04-05, Charlotte, North Carolina.

9. "Exploring Best Practices for the Success of Junior STEM Faculty at HBCUs." ***Dongyang Deng***, Andrea Ofori-Boadu, 2018 Women in Higher Education Leadership and Mentoring Conference, North Carolina Agricultural and Technical State University, May 16, 2018
10. "University-Industry Collaborations for Advancing Students' Learning and Formation of Career Identities" Andrea Ofori-Boadu, ***Dongyang Deng***, 2018 Women in Higher Education Leadership and Mentoring Conference, North Carolina Agricultural and Technical State University, May 16, 2018
11. "Investigating the Mechanisms of Iron and Sulfur Biogeochemical Transformations in an Innovative Iron-Dosed Anaerobic Wastewater Treatment Process" ***Dongyang Deng,*** Presented in Atlanta, Georgia, May 6-8, 2018
12. "An innovative continuous sulfidogenic wastewater treatment with iron sulfide sludge oxidation and recycle" ***Dongyang Deng***, Lian-shin Lin, West Virginia University, Morgantown, WV, USA. Presented at Institute of Water Security and Science's (IWSS) Spring Conference, February 20-21, 2018
13. "Development of Innovative Co-treatment Technologies for Acid Mine Drainage and Municipal Wastewater Management in Energy Producing Regions" ***Dongyang Deng***, Lian-shin Lin, West Virginia University, Morgantown, WV, USA. Presented at WVU Institute of Water Security and Science's (IWSS) Symposium, February 28, 2017

AWARDS AND HONORS

- Outstanding Student Scholarship, China University of Mining and Technology, 2006, 2007
- NC A&T Advance IT Travel Grant Award $1600 to attend 2018 Water Research Foundation Conference in Atlanta, GA (April 2018)
- NCA&T Summer Research Teams Program Scholarship $5000 (May-August 2018)
- Advance IT Course Release Time Award $11,100(2018 Fall)
- QEM NSF INCLUDES: A National Summit Travel Award (March 2019)
- $3000 Travel Grant Award for Early-Career Faculties from 2019 International Conference on Resource Sustainability – Cities, July 01-03, 2019, Adelaide, Australia
- Nominee for sponsored participation in the 2019 Empowered to Lead: Women in Higher Education Leadership Conference
- **NCA&T Summer Research Teams Program Scholarship $5000 (May-August 2019)**
- **NCA&T Summer Research Teams Program Scholarship $5000 (May-August 2020)**
- **NC A&T 2020 Outstanding Young Investigator $2000**
- **NC A&T 2021 College Intellectual Property Award**

PROFESSIONAL AFFILIATIONS

- Member, American Society of Safety Professionals | ASSP https://www.assp.org/
- Member, American Chemical Society
- Member, Association of Environmental Engineering and Science Professors (AEESP)
- Member, North Carolina Water Resources Association (NCWRA)
- Associate Member, American Society of Civil Engineers (ASCE)
- Member, Environmental Water Resources Institute (EWRI)
- Professional Member, International Association of Journals And Conferences (IAJC)
- Editorial Board Member, Journal of Hydro Science & Marine Engineering, https://ojs.bilpublishing.com/index.php/hsme/about/editorialTeam
- Assistant Editor, Journal: International Journal of Environmental Research and Public Health (IJERPH), Special Issue: Climate Change Effects on Children's Health Outcomes, https://www.mdpi.com/journal/ijerph

SERVICE

2017 Fall-

- Program Coordinator, ABET accreditation preparation
- Reviewer, Chemical Engineering Journal. September 2017 to date (16 times)
- Reviewer, Journal of Environmental Engineering (1 time)
- Department Representative, 2017 Fall Student Open House (Oct 21, 2017)
- Department Representative, 2017 Fall Transfer and Graduate Student Open House (Nov 11, 2017)
- Program Coordinator, New Course development and Curriculum change
- Poster Session Judge, AAUW Greensboro Triad Tech Savvy Find Your STEM Conference for High School Girls (Feb 10, 2018)
- Master Thesis Committee Member (03/22/2018) (Nawfal Shujja)
- Department Faculty Recruiting Committee
- Oral Presentation Judge, North Carolina A&T State University Spring 2018 Undergraduate Research Symposium (April 9, 2018)
- Poster Presentation Judge, 2018 College of Engineering Graduate Research Poster Competition (April 24, 2018)
- Faculty Mentor, Summer 2018 NSF REU EMCOR and DHS REU
- Department Administrator Recruiting Committee (May 2018 to August 2018)
- Curriculum Experts for EHS Program (August 2018-)

2018 Fall-

- Master Thesis Committee Member (10/11/2018) (Mehdi Lamssali)
- Department Representative, 2018 Fall Transfer/Graduate Open House (Nov 10, 2018)
- International Review Board (IRB) member for the International Association of Journals and Conferences
- Conference planner, 2020 IAJC (International Association of Journals and Conferences) International Conference
- Moderator, WRRI Annual Conference, March 21-22, 2019, Raleigh, NC
- Poster Judge, WRRI Annual Conference, March 21-22, 2019, Raleigh, NC
- Reviewer- 2019 National Defense Science and Engineering Graduate (NDSEG) Fellowship Program

2019 Spring-

- Assist with ASCE Annual MATHCOUNTS competition, Feb 09, 2019, McNair Hall at NC A&T State University
- Department representative-Lunch and Learn (Thursday, February 7, 2019 - Barnes Auditorium)
- Organizing Process Safety Bootcamp with Syngenta and Department of Chemical Engineering
- Department student success representative
- College AST (Applied Science and Technology) Graduate Coordinator Committee Member
- Department Representative, Sci-Tech Week (03/11/2019)
- Session Moderator, WRRI Annual Conference, March 21-22, 2019, Raleigh, NC
- Panel Reviewer, Department of Defense, NDSEGF Fellowship
- EHS graduate program coordinator
- Representative, EHS graduate curriculum package for AST PhD program (January-April, 2019)
- Representative, New Students Admit Day (04/06/2019)
- Poster Judge, College of Engineering, 8th Annual Graduate Research Poster Presentation Competition (04/18/2019)
- Judge, Graduation Project Speeches, Ragsdale High School (05/02/2019), Jamestown, NC

2019 Fall-

- Work on change EHS Program OSH Certificate
- Serve as ABET coordinator for EHS program
- Faculty Marshall for Fall 2019 Commencement Ceremony (12/14/2019)
- Poster Judge-NCAT fall 2019 undergraduate research and creative inquiry symposium (11/20/2019)
- Department representative-2019 Fall Open House (09/28/2019)
- 2019 Fall Transfer Open House (11/09/2019)
- Judge-Ragsdale High School Graduation Project Speech Night (12/12/2019)
- Develop Articulation Agreement with Madison Area Technical Community College (07/15/2019-11/30/2019)

2020 Spring-

- Work on Course Mapping to ABET Criteria with Assessment for EHS program (01/27/2020)
- Committee member, AST PhD advisory committee
- Panel reviewer for the 2020 NSF Graduate Research Fellowship Program (GRFP) (Panel: Ecology 1) January 22, 2020

- Department representative for on Campus scholars to Built Environment 02/07/2020
- Faculty Senate representative (Spring 2020-Spring 2022)
- Lead EHS advisory board
- Sci-Tech Week program representative (03/2020)
- Department representative for on Campus scholars to Built Environment (02/2020)
- Develop EHS Curriculum Roadmap for ABET report (03/2020)
- Poster Judge-NCAT 2020 Spring Symposium "Celebrating Undergraduate Research and Creativity" (04/20/2020)

2020 Fall-

- Panel reviewer-2021 NSF Graduate Research Fellowship Program (GRFP) virtual panels
- Session Moderator-2020 ATMAE and IAJC Virtual Conference
- Panel reviewer-2021 DOD NGSEGF Fellowship
- Department Master degree program committee member

Spring 2021-

Develop BLTE AGEP plan
Graduate faculty representative to doctoral dissertation
Serve as a 2020/2021 AEC Professional Development Program Panelist
Judge at the NCTSA State Conference April 25-28, 2021
Program coordinator for ABET assessment collection
Graduate College faculty representative to Daniel Oldham's doctoral dissertation committee
2021 Sci-Tech Week present on women' s session
PhD Dissertation Committee Member-AEC PID App/Tool Idea for Dissertation
Meet with Krista from Disney's Animal Kingdom on May 17 2021 for student recruiting (internships)
Master course enhancement EHS 311 and EHS 394 with Gwen (June 2021)
Dissertation Committee Member (06/28/2021) (Mercy-Dr. Ofori-Boadu)
Paper Review:

Manuscript ID: water-1154160
Type of manuscript: Article
Title: Systematic Design, Optimization and Sustainability Assessment for Generation of Efficient Wastewater Treatment Networks

Summer 2021-

2021 ICRS session chair 07/22/2021
Graduate College faculty representative to Samin Poudel 's doctoral dissertation committee

Fall 2021-

Committee member- College Awards and Citations Committee
Committee member- AST PhD advisory committee
Attend COST student/faculty forum 09/29/2021 5:30 pm to 7 pm
Master Thesis Committee-Nicole Maswanganye
Faculty Senate
EHS advisory board
College Graduate Coordinators
Search committee for new CM professor
Paper review Chemosphere CHEM93602

Spring 2022-

Master Thesis Committee-Nicole Maswanganye
PhD Thesis Committee-Shobha
PhD Thesis Committee-Anurag
Faculty Senate
EHS advisory board
College Graduate Coordinators

College Awards Committee
Graduate College Representative-Samin Poudel 04/01/2022
Summer 2022
Impostor Syndrome: What Is It and What Impact Does It Have 05/19/2022

PROFESSIONAL DEVELOPMENT

2017 Fall-2018 Fall

- Accepted to NC A&T ADVANCE IT Faculty Scholars Program (Nov 2017)
- Invent Triad: A Forum on Invention Ecosystem for the Bio-Economy
- 2017 ABET Symposium-Fundamentals of Programs Assessment Workshop (Nov 2017)
- North Carolina Summit On Safety Leadership (02/28-03/02/2018)
- Attend NC Water Resources Panel: Scarcity & Quality Issues, Discussions, Solutions (02/26/2018)
- Attend Webinar-NCWRA Wake County Efforts to Protective Private Well Users from Contamination (02/05/2018)
- Attend 2018 NSF grants Conference, Detroit, MI (June 4-5, 2018)
- Attend 2018 Fall Faculty Advising Workshop (August 29, 2018)
- Attend 2018 Fall Advance IT Mapping Your Faculty and Leadership Path: developing a Career Individual Development Plan

2018 Fall-2019 Fall

- Attend 2018 HBCU-UP ACE DSA Program& STEM Center of Excellence for Active Learning Research Symposium (09/21/2018, Proximity Hotel)
- Attend College of Agriculture and Environmental Sciences, Center for Excellence in Post-Harvest Technologies, Research and Industry Cluster Symposium (10/08/2018, Kannapolis, NC)
- Attend webinar "Effect of Low Unemployment on OSHA Complaints and Investigations" by EHS Today, 10/23/2018
- Attend CL-057: Creating Goals and Objectives for Significant Learning Workshop (Nov 07, 2018)
- Attend webinar: Environmental Engineering for the 21st Century: Addressing Grand Challenges (Dec 05, 2018)
- Attend 2019 ADVANCE IT Wellness Retreat at the Graylyn International Conference Center in Winston Salem, NC (Jan 25, 2019)
- Attend 2019 NAHB Student Competition Road Show Las Vegas, NV (Feb 18-22, 2019)
- Attend NASA's HBCU/MSI Engagement Forum at John C. Smith University, Charlotte, NC (February 27, 2019)
- Attend 2019 Women's History Month Celebration Luncheon (03/28/2019)
- Future: Attend ADVANCE IT 2019 STEM Women's Writing Retreat at Rizzo Conference Center at in Chapel Hill, NC (June 24-28, 2019)

2019 Fall-2020 Spring

- Attend "Demystifying the Tenure and Promotion Process" workshop (10/28/2019)
- Attend Fall 2019 Virtual Writing Group (09/23-12/02/2019)
- Attend NCAT CL 112: Digital Measures workshop (10/31/2019)
- Attend DORED New Faculty Orientation workshop (11/12/2019)
- Attend NIH Day at UNC Charlotte (11/18/2019)
- Attend 2019 "I Am My Sister's Keeper: Mentoring with a Purpose" Mentoring Workshop hosted by Advance IT (11/21/2019)
- Attend 2019 General Education Advising Workshop (11/21/2019)
- Attend Practical and hands-on short courses on Statistical Data Analysis using Excel and R by NSF HBCU-UP ACE Data Science and Analytics Advancing STEM Education Program (12/03/2019)
- Attend training and obtain Certificate in Principles of Safety and Health by National Safety Council (12/16-12/19/2019, Charlotte, NC)

2020 Spring-2020 Summer

- Attend "Introduction to Blackboard" workshop, North Carolina A&T State University, January 15, 2020
- Attend GWBC (Grant Writing Workshop) by Indiana University (01/31/2020-02/03/2020, Nashville, Indiana)
- Attend Writing Accountability Group (WAG) by NCAT Advance IT (03/09/2020-04/27/2020).

- Transforming Chemistry Education: Models for Transitioning to Green Chemistry Education in Higher Education(02/26/2020 Webinar)
- Attend training for AAC&U VALUE Institute 2020 Calibration Training and become a certified VALUE Institute Scorer (March 2020)
- Webinar - The Coronavirus and Your Workplace: What You Need to Know, EHS Today, Avetta, March 19, 2020
- Attend writing retreat, A Day-Long Online Writing Retreat for Scholars, (05/08/2020) (https://www.inkwellretreats.org/)

2020 Summer-2020 Fall

- Attend Fifth Annual Faculty Research Development Institute by IU Bloomington July21-24,2020
- A Novel Course-based Undergraduate Research Experience (CURE) Institute with Culturally Responsive Mentor Training, May 26-28, 2020
- 2020 CURE-M Online Workshop, May 26-28, 2020

2020 Fall-2021 Spring

- CL-062: Faculty Release ePAF Training

2021 Spring-2021 Fall

North Carolina Higher Education Faculty and Mentor Network
Unstuck: How to Move Past Your Writing Fears
Attend AEESP AJAR Future Faculty Seminar
Tenure and Promotion, The Play (ADVANCE IT Workshop)
"The Perfect Fit" Virtual Workshop - FACULTY ONLY".

2021 Fall-2022 Spring

18th Annual EPA Drinking Water Workshop, August 30th to September 2nd 2021
NCAT CTE Reading Circle: Search Inside Yourself. September 7 2021 2pm-3pm
NCAT Advance IT "Demystifying the Tenure & Promotion Process" Workshop 09/27/2021
NCAT Fall Semester Reading Circle Search Inside Yourself 09/07/2021
NCAT Aggie Nav Training 10/18/2021
2021 NIH Virtual Grants Seminar 11/01/2021-11/04/2021
AEESP AJAR Future Faculty Seminar Series: Fall 2021 11/17/2021
Student/Faculty Forum Nov 18th @5:30pm via ZOOM

2022 Spring

Demystifying Continuous Improvement in Program Assessment Feb 16/2022
Spring 2022 Graduate Program Coordinators
EHS advisory board meeting January
Built Environment Doctoral Development Plan Committee
Judging Research Award Nominees -Outstanding Young Investigator April 2022
Active Lecturing With the iPad, 10:00am - 11:00am, Friday, April 8, 2022
Seminar Lessons learned and unlearned in ZOE 2.0: a multi-ethnic community-based genetic epidemiologic study of early childhood oral health in North Carolina
EPA ORD Webinar Source Water Protection and Harmful Algal Blooms Confirmation 04/26/2022 2pm

ADDITIONAL INFORMATION

Languages: English, Chinese
Technical Proficiencies: MS Office Suite, AutoCAD, AutoCAD, Civil 3D, C, Visual B, GPS-X, SWMM, HEC-HMS, ArcGIS
Interests: Sailing, photography, literature, tennis, badminton and swimming.

TEACHING IMPROVEMENTS

Summer 2021

Master course enhancement EHS 311 (June 2021)