

STAFF EXPERTISE – BIOSKETCHES/CVs

Central Florida Waste-to-Energy Initiative (CFWEI), Seminole County (Applicant)

William (John) Slot, M.S.MOT, Chief Technology Officer, Administrator for Sustainability & Adaptability, Seminole County, FL

Mr. Slot is a public and private sector operations executive, consultant, and board director who spearheads transformative initiatives recommended by the Board of County Commissioners for Seminole County or arising from substantial federal/state funding opportunities. Focused on enabling common-ground initiatives across County departments, his goal is to ensure efficient and high-quality service delivery while fostering innovation and stakeholder engagement. Mr. Slot plays a pivotal role in driving sustainability, resiliency, advanced transportation, and technology modernization initiatives for the entire County. Collaborating closely with the County Executive team, he develops strategic visions, executes improvement strategies, and positions Seminole County as a hub for competitive industries and emerging technology partnerships. His responsibilities also include creating public-private partnerships, analyzing and improving procurement processes, benchmarking best practices, and championing large-scale projects in sustainability and advanced transportation.

George Woodring, Financial Grant Administrator, Seminole County, FL

With experience in the grants field dating back 22 years, Mr. Woodring provided grant writing and grant administration services, as well as project management for grant funded initiatives for both the School District of Palm Beach County and Lake County Schools prior to joining Seminole County's Resource Management Department in April 2016. As Financial Grant Administrator for the County, Mr. Woodring coordinates all County level grant submissions and reporting compliance and provides financial oversight for both federal and state funded grant awards, including \$91.6 million in American Rescue Plan Act (ARPA) and \$33 million in Emergency Rental Assistance (ERA) funds from the U.S. Department of the Treasury. Mr. Woodring earned a Bachelor of Education from Bowling Green State University and a Master of Education from Stetson University.

Oliver C. E. Bond., Solid Waste Division Manager, Seminole County, FL

Mr. Bond holds a Bachelor's Degree in Environmental Biology from Nottingham Trent University in England. He possesses a passion for environmental science and has 17 years of experience in the field. In his previous position as Environmental Programs Manager, Mr. Bond extended initiatives to expand recycling within Seminole County. Today, Mr. Bond manages Seminole County's Solid Waste Division and has secured an agreement to bring a landfill gas to Renewable Natural Gas (RNG) plant to the Seminole County landfill.

Kimberly Ornberg, PE, Environmental Services Director, Seminole County, FL

Ms. Ornberg is a professional engineer who received her Bachelor of Science in Environmental Engineering from the University of Central Florida. She has spent most of her three-decade career at Seminole County focused on developing environmental programs, policies, and education, having implemented several successful educational campaigns, projects, and ordinances that have resulted in the protection and measurable improvement of Seminole County's natural resources. She is currently implementing a holistic water policy and sustainability plan for the County.

William (Johnny) Edwards, P.E., Interim Director of the Seminole County Utilities Department, Seminole County, FL

Mr. Edwards is a Florida-licensed professional engineer with Bachelors and Masters Engineering degrees from the University of Florida. He has 27 years serving in both the public and private sectors gaining experience in the management of utilities, solid waste management, stormwater management, and air pollution control. Currently responsible for the County's utility systems with an annual budget of \$85 million, Mr. Edwards oversees five water treatment plants producing about 17 MGD of potable water, two water reclamation facilities producing about 4.8 MGD of reclaimed water, the utilities capital improvement program, and the business office. He also represents the County's interests by serving on the Board of the South Seminole North Orange County Wastewater Transmission Authority, which is permitted to transmit up to 13.2 MGD of wastewater. While working cooperatively with other area utilities, Mr. Edwards plans to continue to provide cost-effective services, plan for continued growth in Florida, and reduce potential impacts of the utility on the environment.

Susan Caswell, AICP, Sustainability Director, Osceola County, FL

For over 30 years, Ms. Caswell has worked in the public sector promoting smart and sustainable growth in Central Florida. At Osceola County, she established a sustainability program that addresses not only environmental issues but fiscal, economic, and social sustainability as well. Ms. Caswell's background as a regional planner, professor, and local government planner and administrator makes her uniquely qualified to oversee the County's sustainability initiatives and a strong supporter and champion for collaborative efforts.

Paul J. Conover, CFM, Sustainability Project Manager, Osceola County, FL

Since 2002, Mr. Conover has worked in various levels and disciplines in local governments. His broad experience brings new insight and unique pathways to how projects are approached, maintained, and completed. Mr. Conover is immensely personable and leverages this skill to create cohesion and collaboration among different groups.

Corey F. Knight, P.E., Director of Public Works, City of Orlando, FL

Mr. Knight was appointed Director of the Public Works Department by Mayor Buddy Dyer on August 25, 2022. Mr. Knight's background in municipal engineering stretches throughout the public works sector including several large design/build projects. Mr. Knight has carried forward Mayor Dyer's sustainability initiative and continues to lead the Department in thinking outside the box in all aspects of public works.

Alan Oyler, P.E., Special Assistant to the Director of Public Works, City of Orlando, FL

Mr. Oyler holds a Bachelor's Degree in Environmental Engineering and has served in the Orlando municipal wastewater industry for over 40 years. While serving as Public Works Director for the City of Orlando, Mr. Oyler helped create Mayor Dyer's sustainability initiative which has gained national recognition. Mr. Oyler currently serves as Special Assistant to the Director of Public Works, providing technical expertise on a wide range of policy matters and community initiatives.

Brian Reid, PE CCM, Director of Water, Wastewater, and Reuse, City of Altamonte Springs, FL

With a background in water infrastructure that stretches over 20 years, Mr. Reid served as Plant Engineer for the City of Altamonte Springs prior to being appointed Director of Water, Wastewater, and Reuse on March 4, 2024.

Jahrnan Nesbitt, PE, Assistant Division Director of Water, Wastewater, and Reuse, City of Altamonte Springs, FL

Prior to working for the City of Altamonte Springs, Mr. Nesbitt worked for the City of Columbus, Ohio, where he was extensively involved in their water and wastewater infrastructure capital improvement program.

Bobby Wyatt, P.E., Public Works Director, City of Oviedo, FL

Mr. Wyatt attended the University of Central Florida and received a Bachelor's Degree in Environmental Engineering. He has worked in the environmental/civil engineering field for 30 years with a primary focus in water, wastewater, stormwater, and traffic engineering infrastructure. Mr. Wyatt is a registered professional engineer and worked at two national consulting engineering firms in the Orlando area for 8 years prior to working for the City of Oviedo. He has now worked for the City of Oviedo for almost 22 years, serving as the Public Works Director for 12 years. He oversees 61 staff in three divisions including Engineering, Operations, and Utilities.

Alexis Stewart, P.E., Assistant Public Works Director/City Engineer, City of Oviedo, FL

Ms. Stewart has served as the Assistant Public Works Director/City Engineer for the past 8 years. As such, her responsibilities include staff supervision, project and construction management, operational procedures, and coordination of multiple Capital Improvement Projects for water, wastewater, reclaimed, stormwater, and traffic engineering. Ms. Stewart holds a Bachelor's Degree in Environmental Engineering from the University of Central Florida, and is a licensed professional engineer. She has 28 years of relevant project experience in water, wastewater and reclaimed pipeline and plant design, hydraulic system analysis, water supply permitting, bidding, construction administration, and funding assistance.

Bilal Iftikhar, P.E., Director of Utilities, City of Winter Springs

Mr. Iftikhar received a Bachelor's Degree in Civil Engineering from the University of Central Florida, a Juris Doctorate Degree from Florida A&M University College of Law, and a Masters in Public Administration from University of Pennsylvania. Mr. Iftikhar was the Director of Public Works and Utilities for the City of Sanford for over 20 years where he oversaw the utilities, street and facilities maintenance, and stormwater divisions. Since joining the City of Winter Spring one year ago, his primary focus has been on the management and improvement of the water, wastewater, and reclaimed system.

Todd Swingle, CEO/Executive Director, Toho Water Authority

Mr. Swingle leads over 500 Toho employees that operate 26 water and water reclamation facilities, almost 4,000 miles of pipelines, and 600 pump stations serving approximately 160,000 connections with services including Water, Wastewater, and Reclaimed Water. Before joining Toho, Mr. Swingle spent over 25 years serving in various environmental management roles in the utilities, consulting, and manufacturing spaces in the U.S. and globally. Currently, Mr. Swingle serves as a board member for the National Association of Clean Water Agencies, the Association of Metropolitan Water Agencies, the Water Research Foundation, and the Florida Water Environment Association Utility Council. Mr. Swingle holds Bachelor's and Master's Degrees in Environmental Engineering from the University of Central Florida, an MBA from the University of Florida, and is a registered Professional Engineer.

Chuck Weber, Vice President of Operations, Toho Water Authority

Mr. Weber joined the Toho Water Authority as Vice President of Operations in June of 2023. Prior to his current position, Mr. Weber served as Director of the City of Tampa Water Department from April 2015 to May 2023 and served in several positions with Water District Number 1 of Johnson County, Kansas. Mr. Weber has a Master of Science in Environmental Engineering from the University of Kansas and is a professional engineer registered in the State of Florida and the State of Kansas. Additionally, Mr. Weber holds a Class IV Certified Drinking Water Operator license from the State of Kansas. Mr. Weber has 32 years of water utility experience. Mr. Weber has served on the utility councils of the Florida Section American Water Works Association (FSAWWA) and the Florida Water Environment Association and represented the FSAWWA on the Florida Potable Reuse Commission.

Jorge Herrera, Co-founder and CEO, Nopetro Energy

Mr. Herrera plans and directs Nopetro's goals, strategies, and business plan execution. Since its founding, he has led the company's rapid growth into a vertically integrated clean energy leader focused on global decarbonization through production and distribution of Compressed Natural Gas (CNG), Renewable Natural Gas (RNG), and Liquefied Natural Gas (LNG). Mr. Herrera is a visionary leader with a passion for decarbonizing energy and innovating infrastructure, and his strategic vision is guided by the fundamental principle of delivering the cleanest and most pragmatic energy solutions tailored to the market while chartering the path toward a carbon free hydrogen future. Mr. Herrera holds a B.A. degree in Business Administration with minors in economics and sociology from the University of Florida with Honors, and a Juris Doctorate degree with a concentration in taxation from Emory University School of Law. Mr. Herrera is a member of the Florida Bar Association.

R. Edward Hart, SVP, Natural Gas Supply, Nopetro Energy

Mr. Hart oversees all natural gas supply origination, pipeline transportation, and customer distribution solutions for Nopetro Energy. He has over 40 years of experience in the energy (petroleum, natural gas, electricity, and renewable) business in trading, marketing, management, and consulting. During his extensive professional career, he has worked for one of the nation's largest independent refining and marketing companies, a large electric and gas utility, and founded a natural gas production and marketing company. Mr. Hart was also a partner in Niagara Biomass Power, LLC, a dedicated SPE power generator that purchased a 54 MW power plant in Niagara Falls in partnership with a California based renewable energy fund. Mr. Hart holds a B.A. degree in Business Administration from the University of Kentucky.

Emily Duguid, Vice President of Education, Orlando Science Center

Ms. Duguid received a Bachelor of Science in Environmental Science from Florida International University and a Master of Education in Curriculum and Instruction Secondary Science from Florida Atlantic University. She has a passion for science with over 20 years of informal education experience. She joined OSC in 2010 as an Educator and then a Specialist delivering STEM professional development to Central Florida teachers. Over the years, she has served as Senior Manager of Education, Director of Education, and Director of STEM Learning and Engagement. In her current position, Ms. Duguid is committed to providing access to high quality STEM programs to foster 21st century skills like collaboration, creativity, communication, and critical thinking for all students.

Brandan Lanman, Vice President of Public Programs, Orlando Science Center

Mr. Lanman earned a Bachelor of Science degree in Physics from Butler University of Indianapolis, Indiana. Mr. Lanman began working for the Orlando Science Center in 2007 as the Manager of Space Science Programming and worked his way to Vice President of Visitor Experience. Mr. Lanman now oversees the vision of all exhibits and programmatic experiences, while managing the facilities of the science center.

Jenifer Rupert, Resilience Officer, East Central Florida Regional Planning Council

Ms. Rupert is an innovative team player with proven success initiating, building and leading collaborative partnerships to raise awareness and confront complex challenges. Currently serving as the Resilience Officer for the East Central Florida Regional Planning Council, she initiated the design and development of the East Central Florida Regional Resilience Collaborative. In the four years since its inception, she led the R2C to build the Strategic Resilience Action Plan, the region's first greenhouse gas inventory, science-based target and continues the work to draft an integrated regional climate action plan that incorporates risk, social vulnerabilities, equity and a climate informed conservation strategy.

CVs are attached for the following individuals. Additional team member CVs are available upon request.

- Søren Juul Jørgensen, CEO, Bioman Florida
- Luke Morris, Project Manager, Bigadan A/S, Orlando BioEnergy
- Sudhakar Viswanathan, Vice President, 374Water
- Haofei Yu, Ph.D., Associate Professor, Department of Civil, Environmental, and Construction Engineering, University of Central Florida

Søren Juul Jørgensen[linkedin.com/in/sorenjuuljorgensen](https://www.linkedin.com/in/sorenjuuljorgensen)**EMPLOYMENTS:**

CEO, Bioman Florida	2024
CEO, Bigadan Americas	2022
SVP, Global Business development, Bigadan Global markets and business development for leading Danish biogas company	2022
Founder, ForestAvenue LLC, Strategy firm in digital transformation & innovation and Public/Government Affairs	2018
Global Advisory Board Member, Copenhagen Fintech	2019
Co-founder and member of the board, Sustainary	2018
Founding Member, Tech Advisory Group, Center for Human Rights, Stanford University	2018
Member of the Board, Hedeselskabet, Poland Operating 3 renewable energy plants in Poland and trade in CO2-emission quotas.	2010-2015
Client Solution Executive/Chief Consultant IBM / AP Moller-Mærsk Data Group	2003-2006
Chief Consultant the Danish IT Industry-association (ITB)	2003-2006

SERVICE

Consul General of Denmark for the State of California & CEO, Innovation Center Denmark, Silicon Valley,	2014-2018
Chief Adviser, Ministry of Foreign Affairs	2013-2014
Head of Cabinet, Chief Advisor the Minister for Europe of Denmark	2011-2013
Lawyer (barrister) representing Denmark at the European Court in Luxembourg and senior adviser EU law, Ministry of Foreign Affairs	2010-2011
Head of Commercial Department/Economic Counsellor, Embassy of Denmark in Warszawa	2006-2010
Head of Cabinet, Minister for European Affairs	2001-2003

Deputy Head of Department, EU-secretariat, Ministry of Foreign Affairs	1999-2001
Official spokesman, Ministry of Foreign Affairs	1996-1999
Diplomat, Permanent Representation of Denmark to the European Union	
Diplomat, Advisor, Danish Mission to the United Nations, New York	1995
Head of Section, Ministry of Foreign Affairs	1992-1995
Captain, Army Reserves, Royal Danish Lifeguards Regiment	1987-1997
Military Service, Royal Danish Lifeguard Regiment, infantry,	1984-1987

EDUCATION

JD, General law and European Union Law	1992
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ACADEMIC FELLOWSHIPS

Research Fellow, Center for Human Rights and International Justice, Stanford University	2019-
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RESEARCH EXPERIENCE

California Inland Communities: Encouraging efficiency and regional economic prosperity Research project at the Banatao Institute, CITRIS at UC Berkeley.	2023
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European Group on Blockchain Ethics (EGBE), Research initiative established by the European Blockchain Service Infrastructure (EBSI)	2021
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Stanford University, Research fellow and researcher Center for Human Rights and International Justice,	2019-
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University of Copenhagen, Partner, Explainable Artificial Intelligence and Fairness in Asylum Law (XAlfair)	2020-
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Bar Association of Denmark Member of research group on the future of the legal profession and the legal systems 2019. o Future of the Legal Profession. Research and research paper.	
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TEACHING

Strathmore Business School, Strathmore University, Nairobi Sustainable business and Business Impact	2023-
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GAEIA, at the Center for Human Rights and International Justice,	2021-
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Stanford University

Niels Broch Business School Copenhagen, Board Education 2020-
Lecturer *Responsible and sustainable business practice and innovation*.

University of Copenhagen, Denmark, Faculty of Law 2005-2018
Associate Professor, European Union Law,

Ministry of Foreign Affairs of Denmark 2001-2006
Lecturer/trainer, European Union decision making processes and European Union
negotiation styles and techniques.

Awards:

PIT-UN grant recipient 2023

Knight of the order of Dannebrog (Denmark) 2008

IBM (EMEA) Leadership Award 2005

Other:

Member of the advisory Board,
Co-founder and Board Member, Nordic Innovation House, New York 2017-2018
Member of the Board, Danish American Chamber of Commerce, 2016-2018
Member of the Board, Nordic Innovation House, Palo Alto 2014-2018

LUKE MORRIS

PERSONAL INFORMATION

ADDRESS:	49 Ravenswood Drive Auckley Doncaster DN9 3PA	DATE OF BIRTH:	Exemption 6: PII
		TEL. NO:	01302 770 890
		MOBILE:	07717443019
		E-MAIL:	lm@bigadan.dk

EDUCATION

2009 – 2013	The University of Nottingham <i>EngD Efficient Fossil Fuel Technologies</i>
2005 - 2009	The University of Nottingham <i>MEng Chemical Engineering (Honours) grade 1:1</i>
2007 – 2008	The University of Queensland <i>One year university exchange as part of the Universitas 21 exchange scheme</i>
1998 – 2005	The Hayfield School, Auckley, Doncaster <i>5 A' Levels including</i> Mathematics (A) Chemistry (A) Physics (A) Further Mathematics (C)
	<i>10 GCSEs including</i> Mathematics Science English Language Information Technology

PROFESSIONAL EXPERIENCE

June 2015 – present Bigadan A/S
Europe wide
Project Manager

My current employer Bigadan A/S are a Danish company who design, build and operate large scale anaerobic biogas plants including gas grid injection. Here I manage the full project from conception through to operation. Specific roles include managing the detailed design & HAZOP studies, construction and commissioning of the plants including procurement, budgeting and scheduling. This includes all aspects and sub suppliers to the project, such as mechanical, civil & electrical work.

Sub suppliers include large end suppliers for equipment such as boilers, gas upgraders, macerators, separators as well as equipment suppliers (Grundfos, Landia, Sulzer & Borger etc.).

Key clients include; ReFood UK Ltd (UK), Olleco Ltd (UK), Total Energies (France), Sustainable Bio Solutions (Denmark).

July 2014 – May 2015 Torftech Energy Ltd.
Newbury, UK
Process Engineer

At Torftech I was employed as a process engineer involved with the design and commissioning of biomass gasification power projects. This involved the commissioning of gasification plants in the UK and Poland. Further to this I produced front end design work for future gasification plants as well as carrying out process modelling and an array of feasibility work. My role also involved writing applications for funding awards such as Innovate UK and Horizon 2020 to develop Torftech Energy Ltd R&D portfolio.

LUKE MORRIS

Sep. 2013 – June 2014

Engineers Without Borders UK & Tonibung Friends of the Village Development

Sabah, Malaysia

Development Engineer

With TONIBUNG a non-profit, community-based organisation in Sabah, Borneon Malaysia. Work involved the design & installation of run of the river hydro electric systems for the mountainous indigenous communities. Activities involved carrying out feasibility studies for potential new sites, the design of new micro hydro schemes, monitor and maintenance of existing schemes, and supervision of the civil construction. Further to this additional training was carried out for the local communities and operators in the basic mechanical and electrical components for the long term maintenance of the systems.

STUDY & WORK PLACEMENTS

Sep. 2010 – Oct. 2013

University of Nottingham & Doosan Power Systems, *Glasgow, UK*

Research Engineer

Working as a research engineer, I conducted research into carbon capture & storage technologies (CCS). My work involved laboratory scale testing, work on the 180kW test facilities at the site in Glasgow and data analysis of the test results. My role also included presentation at conferences and workshops to showcase the ongoing research by both Doosan Power Systems and the University of Nottingham in the development of near zero emission technologies. Throughout this period, I was working towards my doctorate award which I achieved at the end of my time with the company.

June - September 2008

APC (GB) Ltd, Doncaster

Blood Technician

My role involved visiting APC's suppliers and analysing the quality of supply, the methods used and checking the results against APC and government standards. The role included routine maintenance on the plant equipment, pumps and heat exchangers.

June - September 2006

SPF Ltd, Doncaster

Sales Engineer

Working as a member the team at SPF I dealt with customer orders and deliveries, taking orders and planning future sales. Specific tasks included processing orders and invoices, planning production and delivery schedules.

July-August 2003

John Hill Associates, Doncaster

Architectural Assistant

During my time at John Hill I became proficient in the use of AutoCAD and 3D CAD software. In addition to generating drawings the role also involved surveying residential and commercial buildings.

ADDITIONAL PROFESSIONAL ACTIVITIES

I have experience in using several computer packages including MS Word, MS Excel, MS Project, HYSYS and AutoCAD.

I hold a current clean UK driving licence.

Sudhakar Viswanathan

+1 919.800.9221

Vice President, 374Water

sv@374water.com

Education and Training

B.S. Environmental Engineering, University of Mysore, India **1993-1997**

M.S. Environmental Engineering, Syracuse University **1999-2000**

Research and Professional Experience

Vice President, 374Water, Durham, NC **2022-Present**

Responsible for business development in private and public municipal markets. Pioneering efforts to support solutions based on Supercritical Water Oxidation

National Sales Manager, Biosolids & Bioenergy, VEOLIA, Cary, NC **2016-2022**

Introduced Veolia's first Ecrusor™ organics extractor, and BioThelys THP systems to the US/North American market. Diversified use of BioCon™ ERS thermal oxidation for PFAS destruction. Led research efforts in addressing emerging contaminants in municipal sludge. Responsible for generating over \$583 million dollars in sales pipeline over 5 years

Group Manager, Biosolids Group, SUEZ, Richmond, VA **2013-2016**

Responsible for managing Suez's biosolids portfolio for the US and Canada. Increased sales of non-thermal products in North America by 6% annually since 2013. Participated in national and international conferences as key biosolids business developer. Assist in determining bid strategy. Managed a group of technical sales engineers, application engineers and product managers to support internal and external sales representatives.

Product Manager, Biosolids Group, SUEZ, Richmond, VA **2010-2013**

Increased market shares for advanced anaerobic digesters by 50%. Diversified use of digester mixing technology to water management applications. Deployed solar drying technology into the North American market.

Principal Engineer, Biosolids Group, SUEZ, Richmond, VA **2008-2010**

Championed technical sales and developed market for advanced anaerobic digestion technology nationally, and increased sales for digester mixer technology internationally. Assisted in preparation of product related sales tools such as product bulletins and media.

Senior Research Engineer, Research Development & Industrialization Group, SUEZ, Richmond, VA **2006-2008**

Responsible for transfer of Integrated Fixed-Film Activated Sludge (IFAS) technology to the US market; developed detailed design models for applications including IFAS and Moving Bed Biological Reactor (MBBR). Assist in developing a new Ultrafiltration Membrane for the US market; developed test protocols in collaboration with the engineering team; oversight of construction and commissioning of pilot plant units. Developed new Biological Nutrient Removal (BNR) Filter Technology to address low total nitrogen requirements for Chesapeake Bay watershed applications. Championed Stage-Gate Project Management with accountability throughout the "New Technology" RDI Cycle.

Managed technology transfers to various business units within the organization. Developed intellectual property, internal invention disclosures and patents. Managed process box to strengthen technical expertise of the organization; developed detailed design models.

Research Engineer, Research Development & Industrialization Group, SUEZ, **2002-2006**
Richmond, VA

Lead the research team involved in optimization of innovative physical-chemical and biological technologies. Supervised transfer of Dissolved Air Flotation (DAF) Technology to the US market, developed new saturator nozzles to minimize differential pressure loss and diversified technology to nutrient removal applications in wastewater.

Pilot Plant Engineer, Research Development & Industrialization Group, **2000-2002**
SUEZ, Richmond, VA

Designed and developed testing protocols, programs and implemented start-up and optimization of pilot plant units. Provided support for the regulatory approval process and served as a liaison with federal, state, and universities addressing contemporary environmental issues via pilot scale testing.

Awards and Honors

- 2013 [to Suez] North American Municipal Biosolids Treatment Company of the Year award by Frost & Sullivan
- 2023 (to 374Water) WEFTEC - Innovative Technology Award

Publications

1. Patent: September 13, 2022- US 11,440,828 B2. **Co-authored** (Zhao, H., McQuarrie, J., Wood, L., **Viswanathan, S.**, Mrdjenovich, B., DiMassimo, R.) patent titled 'A method of treating sludge including solids containing phosphorus, ammonia and magnesium and enhancing the dewaterability of the sludge.' Invented the use of a short retention time acid - thermophilic fermenter to simultaneously release ammonia and phosphorus from waste activated sludge to intentionally form struvite crystals as a means to recover phosphorus for agricultural use.
2. **Viswanathan, S.**, Deshusses, M., Hatler, D., Nagar, K. (2023) "Quantifying supercritical water oxidation efficiency treating PFAS laden sludge, ion exchange resin and aqueous film forming foam." Water Environment Federation Residuals and Biosolids Conference. May, 2023
3. **Viswanathan, S.** DiMassimo, R., Zhao, H., Perry, T., Yamada, T., Kahandawala, M., Morgan, A. (March, 2020) "Thermal treatment of PFAS contaminated sludge: experimentation, design consideration and challenges" DOI10.2175/193864718825157597
4. Stephens, N., **Viswanathan, S.**, DiMassimo, R., Schmidt, H., Perez, G., Rose, J. (March, 2020) "Pilot-scale demonstration of intensified anaerobic digestion through thermal hydrolysis pre-treatment at the Moccasin Bend WWTP" DOI10.2175/193864718825157609
5. Goss, C., **Viswanathan, S.**, DiMassimo, R., Moccock, J., Wurm, R. (March, 2020) "Using dried biosolids as a sustainable fuel source: A decade of experience" DOI10.2175/193864718825157642
6. Zhao, H., Avila, I., Geer, G., McQuarrie, J., Wood, L., **Viswanathan, S.**, Mrdjenovich, B., DiMassimo, R. (March, 2020) "Ammonia and Phosphate Releases from Waste Activated

Sludge in Short HRT Thermophilic Pre-treatment Reactor”

DOI10.2175/193864718825157660

7. Hollowed, M., **Viswanathan, S.**, Anderssonchan, A., Li. L. (March, 2020) “Impact of Digestion Intensification on Sidestream: Lessons Learned from Scandinavian Full-Scale Experiences” DOI10.2175/193864718825157681
8. **Viswanathan, S.**, Darby, T., Wert, J. (May, 2021) “Case study of Pennsylvania's first net positive resource recovery facility - The Hermitage Success Story” DOI10.2175/193864718825157953
9. Zhao, H., Lemaire, R., Hollowed, M., **Viswanathan, S.**, Andersson, A., Chan M. (September, 2019) “Implementation of IFAS ANITA Mox Deammonification Process: How Sundets WWTP Converted Its Existing MBBR To Tackle High Strength Thermal Hydrolysis Sidestream” DOI10.2175/193864718825157153
10. Thomson, C., Dimassimo, R., Clay, R., **Viswanathan, S.**, Kim, J., Landes, N. (April, 2017) “Batch vs. Continuous Thermal Hydrolysis — Which is right for you?” DOI10.2175/193864717821495717

Synergistic Activities

- Active member of Water Environment Federation (WEF), National Chapter and North Carolina State Chapter
- Active participant of Water Environment Research Foundation (WERF) subcommittees including phosphorus recovery, innovations in anaerobic treatment, thermal destruction technologies, digestion intensification, decentralized sanitation technologies

Haofei Yu, Ph.D.

Department of Civil, Environmental and Construction Engineering, University of Central Florida
12800 Pegasus Dr. ENG2-227, Orlando, FL 32816 • (407) 823-1309 • haofei.yu@ucf.edu

EDUCATION

Ph.D. in Environmental Health 08/2013

Department of Environmental and Occupational Health, University of South Florida, Tampa, FL

Major Advisor: [Amy L. Stuart](#)

Dissertation Title: A Modeling Investigation of Human Exposure to Select Traffic-Related Air Pollutants in the Tampa Area: Spatiotemporal Distributions of Concentrations, Social Distributions of Exposures, and Impacts of Urban Design on Both

M.S. in Environmental Engineering 07/2008

School of Environment and Architecture, University of Shanghai for Science and Technology, Shanghai, China

Major Advisor: Wenquan Wu

B.S. in Environmental Engineering 07/2005

College of Materials and Environmental Engineering, Hangzhou Dianzi University, Hangzhou, China

Major Advisor: Weihong Wu

POSITIONS

Associate Professor 08/2023 – present

Assistant Professor 08/2017 – 08/2023

Department of Civil, Environmental, and Construction Engineering, University of Central Florida, Orlando, FL

Adjunct Instructor 05/2017 – 08/2017

Postdoctoral Fellow 09/2015 – 08/2017

Supervisor: [Armistead G. Russell](#)

School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA

Post Doctorate Research Associate 07/2014 – 09/2015

Supervisor: [Alex B. Guenther](#)

Atmospheric Sciences & Global Change, Pacific Northwest National Laboratory, Richland, WA

Adjunct Instructor & Research Associate 08/2013 – 07/2014

Graduate Research Assistant 08/2008 – 08/2013

Supervisor: [Amy L. Stuart](#)

Department of Environmental & Occupational Health, University of South Florida, Tampa, FL

Chief Translator 06/2006 – 02/2008

Translator 04/2006 – 06/2006

Shanghai QianDeng Co., Ltd., Shanghai, China

Graduate Research Assistant 09/2005 – 02/2008

Supervisor: Dr. Wenquan Wu

Department of Environmental Engineering, University of Shanghai for Science and Technology, Shanghai, China

Undergraduate Research Assistant 06/2004 – 03/2005

Supervisor: Dr. Weihong Wu

Department of Environmental Engineering, Hangzhou Dianzi University, Hangzhou, China

HONORS AND AWARDS

Outstanding Performance Award. Pacific Northwest National Laboratory	2014
Sam Bell Endowed Scholarship. University of South Florida	2012
Student Poster Competition Award. AWMA 2011 Annual Conference	2011
Axel Hendrickson Scholarship. Air & Waste Management Association Florida Section	2011
Sustainability Research Scholarship. Air and Waste Management Association	2011
USF Health Research Day Outstanding Poster Award (First Place)	2011
Public Health Doctoral Fellowship. University of South Florida	2008
University Graduate Fellowship. University of South Florida	2008
Outstanding Thesis Award. Hangzhou Dianzi University	2005
First Prize Scholarship. Hangzhou Dianzi University	2005

PUBLICATIONS AND PRESENTATIONS

Peer-Reviewed Journal Manuscripts (PhD student advisee[†]/MS student[‡]/Post-doc^{*}/Undergraduate student[#])

1. B. Xu, **H. Yu**, Z. Shi, J. Liu, Y. Wei, Z. Zhang, Y. Huangfu, H. Xu, Y. Li, L. Zhang, Y. Feng, G. Shi. (2024). Knowledge-Guided Machine Learning Reveals Pivotal Drivers for Gas-to-Particle Conversion of Atmospheric Nitrate. *Environmental Science and Ecotechnology* 19:100333. DOI: 10.1016/j.ese.2023.100333. (IF = 12.6)
2. X. Tian, **H. Yu**, Y. Wei, Z. Shi, Y. Feng, L. Zhang, G. Shi. (2023). Gas-Particle Partitioning Process Contributes More to Nitrate Dominated Air Pollution than Oxidation Process in Northern China. *Aerosol Science and Technology*. In Press. DOI: 10.1080/02786826.2023.2294944. (IF = 5.2)
3. Y. Wei, X. Tian, J. Huang, Z. Wang, B. Huang, J. Liu, J. Gao, D. Liang, **H. Yu**, Y. Feng, G. Shi. (2023). New Insights into the Formation of Ammonium Nitrate from a Physical and Chemical Level Perspective. *Frontiers of Environmental Science & Engineering*. 17(11):1-13. DOI: 10.1007/s11783-023-1737-6 (IF = 6.7)
4. H. Xu, **H. Yu**, B. Xu, Z. Wang, F. Wang, Y. Wei, W. Liang, J. Liu, D. Liang, Y. Feng & G. Shi. (2023). Machine Learning Coupled Structure Mining Method Visualizes the Impact of Multiple Drivers on Ambient Ozone. *Communications Earth & Environment* 4(265). DOI: 10.6084/m9.figshare.22012421.v1 (IF = 7.9)
5. M.H. Hasan[†], **H. Yu**, C. Ivey, A. Pillarisetti, Z. Yuan, K. Do, Y. Li. (2023). Unexpected Performance Improvements of Low-Cost Nitrogen Dioxide and Ozone Sensors by Including Signals from Carbon Monoxide Sensor. *ACS Omega* 8(6):5917–5924. DOI: 10.1021/acsomega.2c07734 (IF = 4.132)
6. C.E. Ivey, A.K. Amegah, C.G. Hodoli, K.E. Kelly, A.S. Lawal, P. Pant, S. Singh, R. Subramanian, I. Torres, D.M. Westervelt, H. Yu. (2022) To Share or Not to Share? Academic Incentives May Hamper Public Good. *Environmental Science & Technology*. 56(22):15186–15188. DOI: 10.1021/acs.est.2c05721 (IF = 11.357)
7. Z. Wang, **H. Yu**, W. Liang, F. Wang, G. Wang, D. Chen, W. Wang, H. Zhao, Y. Feng, Z. Shi, G. Shi. (2022). Ensemble Source Apportionment of Air Pollutants and Carbon Dioxide Based on Online Measurements. *Journal of Cleaner Production*. 370:133468. DOI: 10.1016/j.jclepro.2022.133468 (IF = 11.072)
8. S.T. Ebelt, R.R. D'Souza, **H. Yu**, N. Scovronick, S. Moss, H. H. Chang. (2022). Monitoring vs. Modeled Exposure Data in Time-Series Studies of Ambient Air Pollution and Acute Health Outcomes. *Journal of Exposure Science & Environmental Epidemiology*. 2022:1-9. Doi: 10.1038/s41370-022-00446-5 (IF = 5.57)
9. E. Eastman[‡], K.A. Stevens, C. Ivey, **H. Yu**. (2022). On The Potential Of iPhone Significant Location Data to Characterize Individual Mobility for Air Pollution Health Studies. *Frontiers of Environmental Science & Engineering*, 16(5):65. Doi: 10.1007/s11783-022-1542-7 (IF = 6.048)
10. L. Luo[†], Y. Zhang, C. White[#], B. Keating, B. Pearson, X. Shao, Z. Ling, **H. Yu**, C. Zou, X. Fu. (2022). On Security of TrustZone-M Based IoT Systems. *IEEE Internet of Things Journal*. Doi: 10.1109/JIOT.2022.3144405 (IF = 10.238)
11. S. Dharmalingam^{*}, N. Senthilkumar, R.R. D'Souza, Y. Hu, H.H. Chang, S. Ebelt, **H. Yu**, C.S. Kim, A. Rohr. (2021). Developing Air Pollution Concentration Fields for Health Studies using Multiple Methods: Cross-

- Comparison and Evaluation. *Environmental Research*, 207:112207. Doi: 10.1016/j.envres.2021.112207 (IF = 8.431)
12. K. Stevens, T. A. Bryer, **H. Yu**. (2021). Air Quality Enhancement Districts: Democratizing Data to Improve Respiratory Health. *Journal of Environmental Studies and Sciences*, 1-6. Doi: 10.1007/s13412-021-00670-9 (IF = 1.19)
 13. F. Wang, **H. Yu**, Z. Wang, W. Liang, G. Shi, J. Gao, M. Li, Y. Feng. (2021). Review of Online Source Apportionment Research Based on Observation for Ambient Particulate Matter. *Science of the Total Environment*, 762:144095. Doi: 10.1016/j.scitotenv.2020.144095 (IF = 10.753)
 14. K. Do, **H. Yu**, J. Velasquez, M. Grell-Brisk, H. Smith, C.E. Ivey. (2021). A Data-Driven Approach for Characterizing Community Scale Air Pollution Exposure Disparities in Inland Southern California. *Journal of Aerosol Science*, 152:105704. Doi: 10.1016/j.jaerosci.2020.105704 (IF = 4.586)
 15. J. Gao, Y. Wei, G. Shi, **H. Yu**, Z. Zhang, S. Song, W. Wang, D. Liang, Y. Feng. (2020). Roles of RH, Aerosol pH and Sources in Concentrations of Secondary Inorganic Aerosols, During Different Pollution Periods. *Atmospheric Environment*, 241:117770. Doi: 10.1016/j.atmosenv.2020.117770 (IF = 5.755)
 16. X. Yu[†], C. Ivey, Z. Huang, S. Gurram, V. Sivaraman, H. Shen, N. Eluru, S. Hasan, L. Henneman, G. Shi, H. Zhang, **H. Yu**, J. Zheng. (2020). Quantifying the Impact of Daily Mobility on Errors in Air Pollution Exposure Estimation Using Mobile Phone Location Data. *Environment International*. 141:105772. Doi: 10.1016/j.envint.2020.105772 (IF = 13.352)
 17. Q. Zhao, A. Nenes, **H Yu**, S. Song, Z. Xiao, K. Chen, G. Shi, Y. Feng, A. Russell. (2020). Using High-Temporal-Resolution Ambient Data to Investigate Gas-Particle Partitioning of Ammonium over Different Seasons. *Environmental Science & Technology*, 54(16): 9834-9843. Doi: 10.1021/acs.est.9b07302 (IF = 11.357)
 18. J. Gao, S. Dong, **H. Yu**, X. Peng, W. Wang, G. Shi, B. Han, Y. Wei, & Y. Feng. (2020). Source Apportionment for Online Dataset at a Megacity in China using a New PTT-PMF Model. *Atmospheric Environment*, 229:117457. Doi: 10.1016/j.atmosenv.2020.117457 (IF = 5.755)
 19. H. Shen, Y. Chen, Y. Li, A.G. Russell, Y. Hu, L.R. Henneman, M.T. Odman, J.S. Shih, D. Burtraw, S. Shao, **H. Yu**, M. Qin, Z. Chen, A. Lawal, G.K. Pavur, M. Brown and C. Driscoll. (2019). Relaxing Energy Policies Coupled with Climate Change will Significantly Undermine Efforts to Attain US Ozone Standards. *One Earth*, 1(2):229-239. Doi: 10.1016/j.oneear.2019.09.006 (IF = 14.944)
 20. X. Yu[†], A. L. Stuart, Y. Liu, C. Ivey, A. Russell, H. Kan, L. Henneman, S. E. Sarnat, S. Hasan, A. Sadmani, X. Yang & **H. Yu**. (2019). On the Accuracy and Potential of Google Maps Location History Data to Characterize Individual Mobility for Air Pollution Health Studies. *Environmental Pollution*, 252: 924-930. Doi: 10.1016/j.envpol.2019.05.081 (IF = 9.988)
 21. G. Shi, J. Xu, X. Shi, B. Liu, X. Bi, Z. Xiao, K. Chen, J. Wen, S. Dong, Y. Tian, Y. Feng, **H. Yu**, S. Song, Q. Zhao, J. Gao and A. Russell. Aerosol pH Dynamics During Haze Periods in an Urban Environment in China: Use of Detailed, Hourly, Speciated Observations to Study the Role of Ammonia Availability and Secondary Aerosol Formation and Urban Environment. *Journal of Geophysical Research: Atmospheres*, 124. Doi: 10.1029/2018JD029976 (IF = 5.22)
 22. X. Shi, A. Nenes, Z. Xiao, S. Song, **H. Yu**, G. Shi, Q. Zhao, K. Chen, Y. Feng, A.G. Russell. (2019). High-Resolution Datasets Unravel the Effects of Sources and Meteorological Conditions on Nitrate and Its Gas-Particle Partitioning. *Environmental Science & Technology*, 53(6): 3048-3057. Doi: 10.1021/acs.est.8b06524 (IF = 11.357)
 23. M. Qin, **H. Yu**, Y. Hu, A. Russell, K. Doty, A. Pour-Biazar, R. McNider, E. Knipping. (2019) Improving Ozone Simulations in the Great Lakes Region: The Role of Emissions, Chemistry and Dry Deposition. *Atmospheric Environment* 202: 167-169. Doi: 10.1016/j.atmosenv.2019.01.025 (IF = 5.755)
 24. L. Luo[†], Y. Zhang, B. Pearson, Z. Ling, H. Yu, & X. Fu. (2018). On the Security and Data Integrity of Low-Cost Sensor Networks for Air Quality Monitoring. *Sensors*, 18(12), 4451. Doi: 10.3390/s18124451 (IF = 3.847)

25. Y. Niu, J. Cai, Y. Xia, **H. Yu**, R. Chen, Z. Lin, C. Liu, C. Chen, W. Wang, L. Peng, X. Xia, Q. Fu, H. Kan. (2018). Estimation of Personal Ozone Exposure using Ambient Concentrations and Influencing Factors. *Environment International*. 117: 237-242. Doi: 10.1016/j.envint.2018.05.017 (IF = 13.352)
26. **H. Yu**, A. Russell, J. Mullholland, T. Odman, Y. Hu, H. Chang, N. Kumar (2018). Cross-Comparison and Evaluation of Air Pollution Field Estimation Methods. *Atmospheric Environment*. 179: 49-60. Doi: 10.1016/j.atmosenv.2018.01.045 (IF = 5.755)
27. H. Shen, Y. Chen, A.G. Russell, Y. Hu, G. Shen, **H. Yu**, L. Henneman, M. Ru, Y. Huang, Q. Zhong, Y. Chen, Y. Li, Y. Zou, E.Y. Zeng, R. Fan, S. Tao. (2018). Impacts of Rural Worker Migration on Air Quality and Health in China: From the Perspective of Upgrading Residential Energy Consumption. *Environment International*. 113:290-299. Doi: 10.1016/j.envint.2017.11.033 (IF = 13.352)
28. **H. Yu**, A. Russell, J. Mullholland, Z. Huang. (2018). Using Cell Phone Location to Assess Misclassification Errors in Air Pollution Exposure Estimation. *Environmental Pollution*. 233: 261-266. Doi: 10.1016/j.envpol.2017.10.077 (IF = 9.988)
29. Y. Tian, J. Liu, S. Han, X. Shi, G. Shi, H. Xu, **H. Yu**, Y. Zhang, Y. Feng, A. Russell. (2018). Spatial, Seasonal and Diurnal Patterns in Physicochemical Characteristics and Sources of PM_{2.5} in Both Inland and Coastal Regions within a Megacity in China. *Journal of Hazardous Materials*. 342:139-149. Doi: 10.1016/j.jhazmat.2017.08.015 (IF = 14.224)
30. **H. Yu**, A. Guenther, D. Gu, C. Warneke, C. Geron, A. Goldstein, T. Karl, L. Kaser, P. Misztal, and B. Yuan. (2017). Airborne Measurements of Isoprene and Monoterpene Emissions from Southeastern U.S. Forests. *Science of the Total Environment*. 595:149-158. Doi: 10.1016/j.scitotenv.2017.03.262 (IF = 10.753)
31. D. Gu, A.B. Guenther, J. Shilling, **H. Yu**, M. Huang, C. Zhao, Q. Yang, S. Martin, P. Artaxo, S. Kim, R. Seco, T. Stavrou, K. Longo, J. Tota, R. Souza, O. Vega, Y. Liu, M. Shrivastava, E. Alves, F. Santos, G. Leng and Z. Hu. (2017). Airborne Observations Reveal Elevational Gradient in Tropical Forest Isoprene Emissions. *Nature Communications*. 8:15541. Doi: 10.1038/ncomms15541 (IF = 17.68)
32. G. Shi, J. Xu, X. Peng, Z. Xiao, K. Chen, Y. Tian, X. Guan, Y. Feng, **H. Yu**, A. Nenes and A. G. Russell. (2017). pH of Aerosols in a Polluted Atmosphere: Source Contributions to Highly Acidic Aerosol. *Environmental Science & Technology*. 51(8):4289-4296. Doi:10.1021/acs.est.6b05736 (IF = 11.357)
33. **H. Yu**, A. L. Stuart. (2016). Impacts of Compact Growth and Electric Vehicles on Future Air Quality and Urban Exposures May be Mixed. *Science of the Total Environment*. 576: 148-158. Doi: 10.1016/j.scitotenv.2016.10.079 (IF = 10.753)
34. G. Shi, X. Peng, J. Liu, Y. Tian, D. Song, **H. Yu**, Y. Feng and A.G. Russell. (2016). Quantification of Long-term Primary and Secondary Source Contributions to Size-segregated Carbonaceous Aerosols. *Environmental Pollution*. 219: 897-905. Doi: 10.1016/j.envpol.2016.09.009 (IF = 9.988)
35. J. P. Tanner, J. L. Salemi, **H. Yu**, M. M. Jordan, C. DuClos, P. Cavicchia, J. A. Correia, S. M. Watkins, R. S. Kirby, A. L. Stuart. (2016). Uncertainty in Maternal Exposures to Ambient PM_{2.5} and Benzene during Pregnancy: Sensitivity to Exposure Estimation Decisions. *Spatial and Spatio-temporal Epidemiology*. 17:117-129. Doi: 10.1016/j.sste.2016.04.009 (IF = 1.632)
36. G. Shi, H. Chen, Y. Tian, D. Song, L. Zhou, F. Chen, **H. Yu**, Y. Feng. (2016). Effect of Uncertainty on Source Contributions from the Positive Matrix Factorization Model for a Source Apportionment Study. *Aerosol and Air Quality Research*. 16(7): 1665–1674. Doi: 10.4209/aaqr.2015.12.0678 (IF = 4.53)
37. **H. Yu**, A. L. Stuart. (2016). Exposure and Inequality for Select Urban Air Pollutants in the Tampa Bay Area. *Science of the Total Environment*. 551-552: 474-483. Doi: 10.1016/j.scitotenv.2016.01.157 (IF = 10.753)
38. J. P. Tanner, J. L. Salemi, A. L. Stuart, **H. Yu**, M. M. Jordan, C. DuClos, P. Cavicchia, J. A. Correia, S. M. Watkins, R. S. Kirby. (2015). Associations between Exposure to Ambient Benzene and PM_{2.5} during Pregnancy and the Risk of Selected Birth Defects in Offspring. *Environmental Research*. 142: 345-353. Doi: 10.1016/j.envres.2015.07.006 (IF = 8.431)

39. **H. Yu**, A. L. Stuart. (2013). Spatiotemporal Distributions of Ambient Oxides of Nitrogen, with Implications for Exposure Disparities and Urban Design. *Journal of the Air & Waste Management Association*. Doi: 10.1080/10962247.2013.800168. (IF = 3.363)
40. Y. Palida, **H. Yu**, W.Q. Wu. (2009). Wind Tunnel Experiment & Numerical Simulation on Over-Head Road Pollution around a Building: Diffusion & Dispersion. *Journal of Engineering Thermophysics*. 30(9): 1485-1488
41. **H. Yu**, Y. Palida, W.Q. Wu. (2009). Remolding Design of DF8CJ Centrifugal Fan. *Energy Research and Information*. 25(2): 103-108
42. Y. Palida, **H. Yu**, W.Q. Wu. (2008). Passive Sampling and Analysis of Low Concentration Volatile Organic Compounds BTEX in Atmosphere. *Journal of University of Shanghai for Science and Technology*. 30(5): 507-510
43. W.Q. Wu, T. Liu, **H. Yu**. (2007). Numerical Simulation for Unstable Massively Separated Flow under Continuously Varied Inlet Condition. *Journal of Engineering Thermophysics*. 28(4): 129-132
44. W. Wu, Z. Xie, **H. Yu**. (2006) A Preliminary Study on Production of Eco-Cement using Sludge and its Risk of Heavy Metals Release. *Journal of Hangzhou Dianzi University*. 26(6): 62-65

Conference Abstracts/Posters (PhD student advisee[†]/MS student^{*}/Post-doc^{*}/Undergraduate student[#])

1. M.R. Hossain, A. Babuji, M.H. Hasan, H. Abou-Senna, **H. Yu**. (2024). Energy Efficiency and Performance Analysis of Electric Buses in Central Florida. 103rd Transportation Research Board (TRB) Annual Meeting, Washington DC. January 7-11, 2024.
2. M.H. Hasan^{*}, H. Yu⁺. A comparative analysis of community level mobile source emission using big data analytics. Gainesville, FL. April 6-April 7, 2023
3. M.H. Hasan^{*}, H. Yu⁺. The Smart and Trustworthy AIR quality (STAIR) network: practical challenges and lesson learned. 2023 Air Quality Workshop. Gainesville, FL. April 6-April 7, 2023
4. M.H. Hasan[†], N.Q. Palomino[#], **H. Yu**. Using Big Data Analytics to Improve Mobile Source Emission Estimation. The 21th Annual Community Modeling and Analysis System Conference. Chapel Hill, NC. October 17-19, 2022
Since last FAR
5. M.H. Hasan[†], **H. Yu**. Improving Mobile-Source Emission Estimation Using Big Data Analytics. 2022 Air Quality Workshop. Gainesville, FL. March 31-April 1, 2022
6. **H. Yu**, X. Fu, D. Fan, K. Stevens, T. Bryer. The Smart and Trustworthy AIR quality (STAIR) network, a low-cost sensor network for Orlando, FL. 2022 Air Quality Workshop. Gainesville, FL. March 31-April 1, 2022
7. E. Kazimov[†], L. Luo[†], C. White[#], H. Yu, X. Fu, D. Fan, K. Stevens, T. Bryer. The Smart and Trustworthy AIR quality network (STAIR): practical considerations in network design and community outreach. Air Sensors International Conference. Pasadena, CA. May 11-13, 2022
8. K. Stevens, S. Hasan, **H. Yu**. Privacy and Security Concerns with Passively Collected Location Data. American Society for Public Administration Conference. Jacksonville, FL March 20, 2022.
9. M.H. Hasan[†], Yi Li, **H. Yu**. Performance Comparison of Electrochemical sensors across Six Cities in Continental United States. The 20th Annual Community Modeling and Analysis System Conference. Chapel Hill, NC. November 1-5, 2021
10. **H. Yu**, X. Fu, D. Fan, K. Stevens, T. Bryer. A Secure, Trustworthy, and Reliable Air Quality Monitoring System with Low-cost Sensors for Smart and Connected Communities. NSF Cyber-Physical Systems Principal Investigators' Meeting. June 2-4. 2021
11. E. Eastman[†], **H. Yu**. iPhone Significant Location Data has Potentials for Characterizing Historical Individual Mobility for Exposure Assessment. 2021 Air Quality Workshop. Gainesville, FL. March 10-11, 2021
12. M.H. Hasan[†], **H. Yu**. Performance Comparison of NO2 Electrochemical sensors across Six Cities in Continental United States. 2021 Air Quality Workshop. Gainesville, FL. March 10-11, 2021

13. E. Eastman[‡], A. Stuart, C Ivey, **H. Yu**. iPhone Significant Location Data has Potentials for Characterizing Historical Individual Mobility for Exposure Assessment. International Society of Exposure Science 30th Annual Meeting. September 21-22, 2020.
14. **H. Yu**, C. Ivey, and L. Henneman. Google Maps Location History Data has Great Potentials for Improving Exposure Estimation for Air Pollution Health Studies. American Geophysical Union Fall Meeting. San Francisco, CA. December 9-13, 2019
15. **H. Yu** and Y. Li. Field evaluation and calibration of a six-parameter low-cost sensor system in northwestern and southeastern US. (2019). American Geophysical Union Fall Meeting. San Francisco, CA. December 9-13, 2019
16. **H. Yu**, X. Fu, D. Fan, K. Stevens, T. Bryer. A Secure, Trustworthy, and Reliable Air Quality Monitoring System with Low-cost Sensors for Smart and Connected Communities. NSF Cyber-Physical Systems Principal Investigators' Meeting. Crystal City, VA. November 20-23. 2019.
17. **H. Yu**, C. Ivey, X. Yu[‡], L. Henneman, Z. Huang. Using mobile phone data to quantify the impact of spatiotemporal human mobility on air pollution exposure estimation. The 18th Annual Community Modeling and Analysis System Conference. Chapel Hill, NC. October 21-23, 2019
18. Y. Li, **H. Yu** and Z. Fregin. Field evaluation and calibration of a six-parameter low-cost sensor system in northwestern and southeastern US. The 37th American Association for Aerosol Research Annual Conference. Portland, OR. October 14-18
19. **H. Yu**, C. Ivey, X. Yu[‡] and L. Henneman. Using mobile phone data to quantify the impact of spatiotemporal human mobility on air pollution exposure estimation. US-China Environment and Sustainability Forum at the University of Michigan. October 1-2, 2009
20. C. Ivey, K. Do and **H. Yu**. Microenvironmental PM_{2.5} Exposure in a Mixed Land-Use and Heavily Burdened Air Basin. International Societies of Exposure Science (ISES) and Indoor Air Quality and Climate (ISIAQ) Joint Conference. August 18-22, 2019
21. C. Ivey, X. Yu[‡], L. Henneman and **H. Yu**. Quantifying how Mobility Impact Air Pollution Exposure Estimation Using a Large Cell Phone Location Dataset. International Societies of Exposure Science (ISES) and Indoor Air Quality and Climate (ISIAQ) Joint Conference. August 18-22, 2019
22. X. Yu[‡], **H. Yu**. Using Google Map location history data to characterize individual mobility for exposure estimation. 2019 Air Quality Workshop. Gainesville, FL. March 25, 2019
23. L. Luo, Y. Zhang, B. Pearson, Z. Ling, **H. Yu** and X. Fu. On the cyber vulnerability of low-cost air quality sensor network. 2019 Air Quality Workshop. Gainesville, FL. March 25, 2019
24. C. White[#], L. Luo, Y. Zhang, B. Pearson, Z. Ling, X. Fu and **H. Yu**. Low-cost and Cyber-Secured Air Pollution Sensing Systems at UCF. (2019). 2019 Air Quality Workshop. Gainesville, FL. March 25, 2019
25. C. White[#], Z. Loeb[#], X. Yu[‡], **H. Yu**. A Simple and Low-Cost Mobile Sensor System for Measuring Spatial Concentration Gradient of PM_{2.5}. (2018). 17th Community Modeling and Analysis System Conference. Chapel Hill, NC. October 22-24. 2018
26. X. Yu[‡], **H. Yu**. The Influence of Human Mobility on Air Pollution Exposure Estimation. (2018). Florida Section A&WMA 54th Annual Conference & Exhibition. Jupiter, FL. October 23-24, 2018
27. X. Yu[‡], **H. Yu**. Impact of Human Mobility on Errors in Air Pollution Exposure Estimation. (2018). A&WMA's 111th Annual Conference & Exhibition. Hartford, CT. June 25-28, 2018
28. **H. Yu**, A. Russell, J. Mulholland. Characterizing Air Pollution Exposure Misclassification Errors using Detailed Cell Phone Location Data. (2017). American Geophysical Union Fall Meeting. New Orleans, LA. December 11-15, 2017
29. C. Ivey, **H. Yu**, J. Bates, X. Zhai, S. Balachandran, H. Holmes, Y. Hu, J. Mulholland, A. Russell. (2017). What Have We Learned? A Review of Novel Data Assimilation Techniques for Source Apportionment. 16th Community Modeling and Analysis System Conference. Chapel Hill, NC. October 23-25. 2017

30. **H. Yu**, A. Russell, J. Mulholland. (2017). Assessing Exposure Misclassification Error using Cell Phone Location Data. 36th American Association for Aerosol Research Annual Conference. Raleigh, NC. October 16-20, 2017
31. **H. Yu**, J Mulholland, H Chang, R Huang, S Ivey, T Russell. (2016). Inter-comparison and Evaluation of Spatiotemporal Air Quality Exposure Fields Developed using Ten Methods. 2016 International Society of Exposure Science. Utrecht, the Netherlands. October 9-13. 2016
32. **H. Yu**, J Mulholland, H Chang, R Huang, S Ivey, T Russell. (2016). Air Quality Model-based Methods for Estimating Human Exposures: A Review and Comparison. 35th International Technical Meeting on Air Pollution Modelling and its Application. Chania, Crete, Greece. October 3-7 2016.
33. D. Gu, A.B. Guenther, **H. Yu**, J.E. Shilling, K. Longo, Q. Yang, M. Huang, C. Zhao, S.T. Martin, P. Artaxo, S. Kim, R. Seco, T. Stavrou, J. Tota, R.A. Ferreira de Souza, J.O. Vega Bustillos, E.G. Alves, Y. Liu, M.K. Baban Shrivastava, G. Leng, Z. Hu, F. dos Santos. (2015). Improved Tropical Forest Biogenic VOC Emission Factors Based on GOAMAZON 2014/5 Airborne Observations. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA. December 17, 2015.
34. M. Wen, S.N. Pressley, D. Gu, **H. Yu**, A.B. Guenther, T.M. VanReken. (2015). Observed and Modeled Isoprene Fluxes at a Remote Michigan Forest Site. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA. December 17, 2015.
35. J. P. Tanner, J. L. Salemi, **H. Yu**, M. M. Jordan, C. Duclos, P. Cavicchia, J. Correia, S. M. Watkins, R. S. Kirby, A. L. Stuart. (2015). Sensitivity of Air Pollution Exposure Estimates to Exposure Assessment Decisions: Maternal Exposures to Ambient PM_{2.5} and Benzene. Birth Defects Research Part A - Clinical and Molecular Teratology. 103(5): 426-426.
36. **H. Yu**, A. L. Stuart. (2014). Impact of Urban Growth Form and Fleet Electrification on Emissions, Concentrations, and Exposures for Nitrogen Oxides and Select Toxic Volatile Organic Compounds. The 33rd Annual Conference of American Association for Aerosol Research (AAAR). Orlando, FL. October 21, 2014
37. D. L. Mendoza, A. L. Stuart, G. Dagne, **H. Yu**. (2013). Effect of Emissions Uncertainty and Variability on High-Resolution Concentrations of Carbon Monoxide, Fine Particle Black Carbon, and Nitrogen Oxides in Fort Collins, Colorado: Development of a Bayesian Uncertainty Modeling and Evaluation Framework. 2013 American Geophysical Union (AGU) Fall Meeting. San Francisco, CA. December 10, 2013.
38. **H. Yu**, A.L. Stuart. (2013). Impact of Urban Growth Patterns on Air Pollution Emissions and Human Exposures. The 2013 Association of Environmental Engineering and Science Professors (AEESP) 50th Anniversary Conference. Golden, CO. July 15, 2013.
39. **H. Yu**, A.L. Stuart. (2012). Combining CALPUFF with CMAQ model output to resolve neighborhood scale formaldehyde concentration distribution in the Tampa, FL area. 2012 Air & Waste Management Associations Conference & Exposition. San Antonio, Texas. June 19, 2012
40. S. Mehra, **H. Yu**, T. J. Mason, A. L. Stuart, D. Santiago, A. Mullen. (2012). Local Health Impact Assessment Method for Formaldehyde. 22nd Annual USF Health Research Day. University of South Florida. February 24, 2012.
41. **H. Yu**, A.L. Stuart. (2011). Impacts of the Miami-Broward I-95 HOT Lane Project on Air Quality: Emission Estimation and Dispersion Modeling Using Traffic Micro-Simulation Data. 2011 Association of Environmental Engineering and Science Professors Education and Research Conference. Tampa, FL. July 10, 2011
42. **H. Yu**, A.L. Stuart. (2011). The Spatial Distribution of Nitrogen Oxides in Hillsborough County, FL with Implications for the Social Distribution of Exposures. 2011 Air & Waste Management Associations Conference & Exposition. Orlando, FL. June 21, 2011
43. **H. Yu**, A. L. Stuart. (2011). Modeling of residential exposures to nitrogen oxides among different population groups in Hillsborough County. 21st Annual USF Health Research Day. University of South Florida. February 25, 2010.

44. **H. Yu**, A. L. Stuart. (2010). Mobile Source Emissions Estimation and Dispersion Modeling toward High Spatial Resolution Distributions of Nitrogen Oxides and Select Urban Air Toxics. Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes, an International Specialty Conference of AAAR, San Diego, California. March 2010.
45. A.L. Stuart, M.A. Zeager, **H. Yu**, A. Evans. (2010). An Investigation of Intra-urban Patterns of Urban Air Pollution, with Implications for Environmental Exposure Equity and Urban Design. Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes, an International Specialty Conference of AAAR, San Diego, California. March 2010.
46. **H. Yu**, A. L. Stuart. (2009). Benzene Air Pollution and Environmental Equity in the Tampa Area. 46th Annual Florida Air and Waste Management Association Conference. October 2009.
47. **H. Yu**, A.L. Stuart. (2009). Modeling and Equity Analysis for NO_x Air Pollution in the Tampa Area. Florida Public Health Association 2009 Annual Educational Conference. August 2009.

Invited Talks

1. **H. Yu**. Improving Air Pollution Exposure Estimation using Low-Cost Sensor Network and Cellphone Location Data. Graduate Seminar Series. University of Miami. September, 2022
2. **H. Yu**, X. Fu, D. Fan, K. Stevens, T. Bryer. The Smart and Trustworthy AIR quality network (STAIR). Clean Air Monitoring and Solutions Network (CAMS-Net). November, 2021
3. **H. Yu**. Combining sensor network and cellphone mobility data for air pollution exposure estimation. Air & Waste Management Association North Carolina section. February, 2021
4. **H. Yu**. How human mobility impact air pollution exposure. SRM Easwari Engineering College, India. June 2020
5. **H. Yu**. Using iPhone Significant Location data to estimate individual exposure to ambient air pollution. University of Florida. November 2020.
6. **H. Yu**. Human mobility and air pollution exposure. Chinese Research Academy of Environmental Sciences. February, 2020
7. **H. Yu**. Human mobility and air pollution exposure. Air Pollution Seminar. Department of Environmental Engineering Sciences, University of Florida. November 2019.
8. X. Fu, **H. Yu** and K. Stevens. On Security of Low-cost Air Quality Monitoring Networks. United States Environmental Protection Agency. June 26, 2019
9. **H. Yu**. Impacts of Urban Design and Electric Vehicles on Future Air Quality and Exposures. Foundations for Engineering Education for Distributed Energy Resources seminar series. University of Central Florida. February, 2018
10. **H. Yu**. Comparison and Evaluation of Alternative Methods for Air Pollution Exposure Estimation. University of South Florida. September, 2017
11. **H. Yu**. Urbanization, Air Pollution and Volatile Organic Compounds from Plants. Environmental Engineering Seminar Series. Washington State University. November, 2014
12. **H. Yu**. Investigating the Impacts of Urban Form on Air Quality, Vehicular Emissions and Human Exposure. Environmental Research Interdisciplinary Colloquium Seminar. University of South Florida. March, 2013
13. **H. Yu**. Air Quality Assessment of a High Occupancy Toll Lane Project in Miami Dade County. Air and Waste Management Association Tampa Chapter September meeting. Tampa, FL. September, 2012
14. **H. Yu**. Mobile Source Emissions Estimation and Dispersion Modeling toward High Spatial Resolution Distributions of Nitrogen Oxides and Select Urban Air Toxics. Environmental & Water Resources Engineering Graduate Seminar. University of South Florida. March, 2010

Book

1. G. Gao, Y. Hua, **H. Yu**. (2008). VOA Standard English – Society. Dalian University of Technology Press, Dalian, China.
“VOA Standard English” is a book series. The first book of this book series was used as teaching textbook of listening English for graduate students at University of Shanghai for Science and Technology.

TEACHING

Courses Taught

At UCF (5 courses)

ENV 3001. Introduction to Environmental Engineering (Undergraduate)
 ENV 4120. Air Pollution and Hazardous Waste Control (Undergraduate)
 ENV 6106. Air Pollution Modeling (Graduate)
 ENV 6128. Smart Air Quality Monitoring and Air Pollution Control (Graduate)
 CGN 5341: Interdisciplinary Introduction to Smart Cities' Applications (Graduate)
Department of Civil, Environmental, and Construction Engineering

Georgia Institute of Technology (1 course)

CEE 2300. Environmental Engineering Principles (Undergraduate) Summer 2017
School of Civil and Environmental Engineering

University of South Florida (2 courses)

PHC 6303. Community Air Pollution (Graduate) Fall 2013, Spring 2014
Department of Environmental and Occupational Health, College of Public Health
 ENV 6105. Air Pollution: Fundamentals (Graduate) Fall 2013
Department of Civil and Environmental Engineering, College of Engineering

Guest Lecturers

ENV 6935. Graduate Environmental Engineering Seminar - Air Pollution Seminar (*University of Florida*)
 CEE 6314. Environmental Modeling (*Georgia Institute of Technology*)
 PHC 7369. Aerosol Technology in Industrial Hygiene (*University of South Florida*)
 PHC 6303. Community Air Pollution (*University of South Florida*)
 PHC 6357. Environmental and Occupational Health. (*University of South Florida*)

SERVICES

Peer Reviewer for Journals

Nature Cities; Environment International; Environmental Science & Technology; Environmental Pollution; Atmospheric Environment; Science of the Total Environment; Journal of Exposure Science & Environmental Epidemiology; International Journal of Environmental Research and Public Health; IEEE Systems; Atmosphere; Sustainable Cities and Society; Sensors; Transportation Research Part A – Policy and Practice; Transportation Research Part D: Transport and Environment; Geoscientific Model Development; Frontiers of Environmental Science & Engineering; Environmental Health Perspectives; Environmental Research; Frontiers in Environmental Science; Asian Journal of Atmospheric Environment; Urban Climate

Editorial Board

Special Issue Editor. Frontier in Public Health 2023 – 2024

Co-Editor. Special Issue on Air Pollution and Health. Environmental Research: Health	2022 – 2024
Co-Editor. Special Issue on Air Pollution and Climate. Frontiers in Environmental Science	2021 – 2024
Associated Editor. Environment, Development and Sustainability (IF: 4.08)	2021 – 2023
Topic Editor. Atmosphere	2019
Review Editor. Frontiers in Forests and Global Change	2017 – present

Services to the Department, College and University

Chair of Faculty Recruitment Committee	2024
Reviewer for DoD: 2024 Research and Education Program for HBCU/MI: Equipment/Instrumentation	2023
STEM TRansfers' Opportunities for Nurtured Growth (STRONG) mentor	2021 - present
UCF University Master Planning Committee	2021 – present
Camp Connect I and II	2022
Undergraduate advisor	2020
Knight for a Day Open House	2017, 2018, 2020, 2023
STEM Day	2018, 2019
Member, ABET Subcommittee (Criterion 4B)	2019, 2023
Departmental advisor committee for new faculty recruitment	2018

Service to the Profession

Technical Session Convener. 2024 Asia Oceania Geosciences Society	2024
Conference Technical Committee. 2024 Air Sensor Interactional Committee	2024
Session Convener. 2024 Asia Oceania Geosciences Society Annual Conference	2023
Conference Organizing Committee. 2024 Air Sensor International Conference	2023
NSF review panels for CBET, Convergence Accelerator, SBIR, PFI programs	2020 - 2023
Technical Session Convener. American Geophysical Union (AGU) Fall Meeting	2018 - 2021
Scholarship Chair, Air and Waste Management Association Florida Section	2017 - 2023
Conference Organizing Committee. 2021 Annual Air & Waste Management Association Conference	2021
President and founder of the official student chapter, Air and Waste Management Association, USF	2012 - 2013
Co-founder. Joint Environmental Engineering Society (JEES) at USF	2012 - 2013

PROFESSIONAL AFFILIATIONS

Air and Waste Management Association; American Association for Aerosol Research; Association of Environmental Engineering and Science Professors; American Geophysical Union; Chinese-American Professors in Environmental Engineering and Science

IN THE NEWS / MEDIA

1. UCF Earns 2024 Carnegie Community Engagement Classification. https://www.ucf.edu/news/ucf-earns-2024-carnegie-community-engagement-classification/?utm_source=weekly_update&utm_medium=email&utm_campaign=coronavirus&utm_content=2024-01-12
2. UCF study shows best areas near Orlando for air quality. Click Orlando. 5/15/2023. <https://www.clickorlando.com/news/local/2023/05/09/ucf-study-shows-best-areas-near-orlando-for-air-quality/>
3. Cómo afectan los fuegos artificiales el aire que respiramos? Te respondemos preguntas clave sobre la contaminación que generan. On Univision 1/4/2023: <https://www.univision.com/noticias/fuegos-artificiales-contaminacion-aire-respiramos-preguntas-clave>

4. UCF researchers using sensors to track Orlando's air quality: How you can help. 9/27/2021.
<https://www.wftv.com/news/local/orange-county/ucf-researchers-using-sensors-track-orlandos-air-quality-how-you-can-help/H2NNDZNWGZDWRABG34UOPAQZ7E/>
5. UCF Professors to install air quality sensors in downtown Orlando. 2/25/2021.
<https://www.yourcommunitypaper.com/articles/ucf-professors-stevens-yu-and-bryer-are-installing-low-cost-sensors-in-downtown-orlando-to-assess-air-quality/>
6. How Democratizing Air Quality Data will Empower Citizens. 6/15/2020.
<https://medium.com/3streams/democratizing-air-quality-data-in-response-to-covid-19-96fcb47c10f>
7. Coronavirus: Less driving means cleaner air, experts say. The Daytona Beach News-Journal. 4/24/2020.
<https://www.news-journalonline.com/news/20200424/coronavirus-less-driving-means-cleaner-air-experts-say>
8. Something in the air: UCF researchers to introduce air sensors. WFTV. 1/23/2020.
https://www.wftv.com/news/video-something-air-ucf-researchers-introduce-air-sensors/WMEM4FZUCVB6Y6RTLQEKOTJYWY/?_website=cmg-tv-10070
9. New UCF Project Will Put Downtown Orlando Air Quality Data in Residents' Hands. UCF Today. 1/13/2020.
<https://www.ucf.edu/news/new-ucf-project-will-put-downtown-orlando-air-quality-data-in-residents-hands/>
10. UCF is leading an NSF project to design a smart air quality monitoring network for Orlando. UCF CECE. 11/18/2019. <https://www.cece.ucf.edu/ucf-got-an-nsf-grant/3>