VIETNAM NATIONAL UNIVERSITY HOCHIMINH CITY

UNIVERSITY OF TECHNOLOGY

STAFF HANDBOOK

Faculty of Environment and Natural Resources

ENVIRONMENTAL ENGINEERING PROGRAMME

Ho Chi Minh City, 2022

I. FERN'S LECTURERS

Staff Handbook: Nguyen Van Phuoc

Name	*Nguyen Van Phuoc, Professor*		
Post	*Lecturer in Chemical Engineering, Environmental Engineering and Management*		
Academic career	*M.Eng and PhD, Chemical Engineering*	*Ivanovo University of Chemical Technology, Russia*	*1992*
	Engineer Degree, Chemical Engineering	*Ivanovo University of Chemical Technology, Russia*	*1988*
Employment	*Lecturer*	*Ho Chi Minh City University of Technology*	*1992 – Present*
	Dean, Faculty of Environment and Natural Resourses	*Ho Chi Minh City University of Technology*	*1999 – 2007*
	Permanent Vice Director	*Insitute for Environment and Resources*	*05.2007 – 11.2007*
	Director	*Insitute for Environment and Resources*	*2007 – 2018*
	President	*Ho Chi Minh City Association for Water and Environment*	*2016 – Present*
	President	*Ho Chi Minh City Union Of Science And Technology Associations*	*2020 – Present*
Research and development projects over the last 5 years	*PROFESSIONAL FIELDS AND MAIN RESEARCHS:* ▪ *Field: Environment* ▪ *Speciality: environmental Techonology, environmental Management* ▪ *Professional knowledge: waste treatment (wastewater, solid waste, exhaust fumes), solid waste management.* ▪ *RESEARCH DIRECTIONS* *1. Solid Waste Management* *2. Water Resources Management* *3. Municipal Management* *4. Industrial Areas Management* *5. Recycling of Industrial Waste* *6. Air Emission Treatment Technology* *7. Domestic and Industrial Wastewater Treatment (Wastewater Recycling)*		
Industry collaborations over the last 5 years	*Project title* 1. Role assessment of natural sand dunes along the coast of Vung Tau City in environmental protection, landscape, natural disaster prevention and response to climate change and sea level rise. Ba Ria - Vung Tau Environmental Protection Agency. Team Leader		

	2. Investigation and classification of waste sources and tools developments to support pollution management in Ba Ria - Vung Tau province. Ba Ria - Vung Tau Environmental Protection Agency. Team Leader *3.* Investigate, make statistics, evaluate and propose solutions for hazardous waste and solid waste management of industrial production facilities in Binh Duong province. Binh Duong Department of Science and Technology. Team Leader *4.* Research and evaluation of greenhouse gas emissions per GDP unit in Binh Duong Province. Binh Duong Department of Science and Technology. Team Leader *5.* A study on the option to reuse sludge from water, wastewater and slag treatment systems. Binh Duong Department of Science and Technology. Team Leader *6.* Evaluation of the effects of fertilizers and pesticides on products, the environment, and human health in citrus growing areas in Bac Tan Uyen district, Binh Duong province and proposal of preventive and remedial measures. Binh Duong Department of Science and Technology. Team Leader *7.* Plan for prevention and response to chemical incidents in Long An province. Long An Department of Industry and Trade. Team Leader 8. Project on treatment of contaminated site at Loi Binh Nhon landfill, Tan An town. Long An Department of Industry and Trade. Team Leader 9. Development of information technology tools for industrial environment management applied to enterprises inside and outside industrial zones and clusters in Tien Giang province. Tien Giang Department of Natural Resources and Environment. Team Leader
Patents and proprietary rights	*Title* — *Year* *Patent "Textile dyeing wastewater treatment system"* — *Decision No. 105083/QD-SHTT* — *2019* *Patent "Tanning wastewater treatment system"* — *Decision No. 85990/QD-SHTT* — *2019* *Patent "Textile dyeing wastewater treatment system"* — *Decision No. 14143w/QD-SHTT* — *2020* *Certificate of Copyright Registration "Research article on building a framework for environmental incident assessment"* — *Decision No. 4908/ 2020/ QTG* — *2020*

Important publications over the last 5 years	***Selected recent publications from a total of 93 peer-reviewed papers:*** 1. Nguyen Van Phuoc, Nguyen Thi Thu Hien, Cao Manh Quan, Nguyen The Tung Lam. *Results of determination of greenhouse gas emissions by grdp in Binh Duong province*. Environmental Magazine, special issue II/2021. 2. Nguyen Van Phuoc, Nguyen Thi Thu Hien, Cao Manh Quan, Nguyen The Tung Lam. *Research to determine the coefficient of knk emission due to energy use of some industries in Binh Duong province*. Environmental Magazine, special issue II/2021. 3. Nguyen Van Phuoc, Nguyen Thi Thu Hien. *Forecasting the level of eutrophication due to the discharge of wastewater from economic activities in the Southeast coastal region*. Environmental Magazine, special issue IV/2020. 4. Le Tan Cuong, Nguyen Van Phuoc, Vu Van Nghi, Nguyen Thi Thu Hien. *Research and assessment of incidents at wastewater treatment stations in Can Gio coastal tourism urban area*. Environmental Magazine, special issue II/2020. 5. Nguyen Van Phuoc, Vu Van Nghi, Nguyen Thi Thu Hien. *Forecast of environmental impacts due to concentrated aquaculture activities in Can Gio*. Environmental Magazine, special issue II/2020. 6. Nguyen Van Phuoc, Le Tan Cuong, Vu Van Nghi, Nguyen Thi Thu Hien (2020). *Forecasting the extent of damage due to wastewater discharge incidents in industrial zones along Thi Vai river and solution proposal*. Environmental Magazine, special issue No. I. 7. Vu Van Nghi, Nguyen Van Phuoc, Le Tan Cuong, Nguyen Thi Thu Hien (2020). *Forecast of environmental impacts due to concentrated aquaculture activities in Can Gio district*. Environmental Magazine, special issue No. I. 8. Yacouba Sanou, Nguyen Thi Thanh Phuong, Samuel Pare, Nguyen Van Phuoc (2019). *Arsenic (V) removal from aqueous solutions using ferromagnetic activated carbon: equilibrium and kinetic studies*. Journal of Water Science, 32(2), 179–192. 9. Le Tan Cuong, Nguyen Van Phuoc, Le Thi Cam Tien (2019). *Building a database of waste sources to strengthen management, improve the efficiency of coastal water quality protection in Ba Ria - Vung Tau province*. Environmental Magazine, special issue No. III. 10. Nguyen Van Phuoc, Nguyen Hoang Lan Thanh, Nguyen Thi Thu Hien, Nguyen Thi Thanh Phuong (2019). *Current status of residues of fertilizers and pesticides in soil, water and air environments in citrus growing areas in Binh Duong province*. Environmental Magazine, special issue No. I. (in Vietnamese) 11. Phuoc NV, Thanh NHL, Hien NTT, Phuong NTT, Hoa PTT (2019). *Determination of half-life and pesticide residues in citrus soil in Bac Tan Uyen district, Binh Duong province*. Environment Magazine, Special Issue No. II. (in Vietnamese) 12. Nguyen Hoang Lan Thanh, Pham Thi Phuong Duyen, Wan-Sik Par, Shin Don Hoon, Nguyen Van Phuoc (2018). *Research and application of technology combining pretreatment with ozone and MBBR to treat color and persistent organic matter in textile dyeing wastewater*. Environmental Magazine, special issue No. IV. (in Vietnamese)

<table>
<tr><td></td><td colspan="3">13. Hong Thi Bich Truong, Phuoc Van Nguyen, Phuong Thi Thanh Nguyen, Ha Manh Bui (2018). Treatment of tapioca processing wastewater in a sequencing batch reactor: Mechanism of granule formation and performance. Journal of Environmental Management, 218, 39-49.

14. Thanh NHL, Duyen PTP, Par WS, Hoon SD, Phuoc NV (2018). Research and application of technology combining pretreatment with ozone and MBBR to remove color and persistent organic matter in textile dyeing wastewater. Environment Magazine, Special Issue No. IV. (in Vietnamese)

15. Nguyen Hoang Anh, Kim Linh Nguyen, Otto Richter, Minh Thinh Pham, Van Phuoc Nguyen (2017). Ecophysiological responses of young mangrove species Rhizophora apiculate (Blume) to different chromium contaminated environments. Journal of Science of the total environment, 574, 369-380.

16. Hoa PTT, Phuoc NV (2017). Optimization of enzymatic degradation of paper sludge using response surface method – centered structure design. Environment Magazine, Special Issue No. I. (in Vietnamese)

Book chapters:
1. Phuoc NV et al (2020). Assessment of the environmental incidents in the Southeast coastal area and solution proposal. HCMC, VNU-HCM Press. (in Vietnamese)</td></tr>
<tr><td rowspan="3">Activities in specialist bodies over the last 5 years</td><td>Cooperation project with DYETEC Institute, Korea on rural clean water supply for saline areas</td><td>Vietnam Presiding officer</td><td>2018 – present</td></tr>
<tr><td>Cooperation project with DYETEC Institute, Korea on the treatment of textile dyeing wastewater</td><td>Vietnam Presiding officer</td><td>2016 – 2018</td></tr>
<tr><td>Korea Cooperation Project (KIAT)</td><td>Vietnam Presiding officer</td><td>2015 – 2017</td></tr>
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Staff Handbook – Dang Viet Hung

Name (Họ và Tên)	*Dang Viet Hung*		
Post (Ví trí)	*Lecturer in Environmental Engineering*		
Academic career (Quá trình đào tạo)	*PhD. in Environmental Engineering*	*Pukyong National University, Korea*	*2006*
	Engineer of Environmental Engineering	*Ho Chi Minh City University of Technology (HCMUT)*	*1994*
Employment (Nghề nghiệp)	*Associate Professor*	*HCMUT*	*2016 - now*
	Lecturer	*HCMUT*	*2000 - 2016*
	Environmental Engineer	*Vietnam Institute Tropical Technology & Environmental Protection*	*1994 - 1999*
Research and development projects over the last 5 years (Thành tích dự án và nghiên cứu trong năm gần)	*- Using recycled materials to make media for replacing biofringe in swim-bed technology (HCMUT, 2012-2013, 40 million VND).* *- Treament of concentrated industrial wastewater with high concentration of nitrogen by ICEAS – MBSBR (Intermittent Cycle Extended Aeration System – Moving Bed Sequencing Batch Reactor) (HCMUT, 2015-2016, 50 million VND).*		
Industry collaborations over the last 5 years (Hợp tác với doanh nghiệp)	*- Technical Manager for Hi-Tech BK Environment Co.Ltd.* *- Project Team Leader for Khang Ngoc Environment Technical Joint Stock Company.* *- Project Team Leader for Bach Khoa Ho Chi Minh City Science Technology Joint Stock Company (HCMUT).*		
Patents and proprietary rights (Sở hữu trí tuệ)			

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<tr><td>Important publications over the last 5 years
(Bài Báo nổi bật trong 5 năm gần)</td><td colspan="3">- Dang Viet Hung, A study on concentrated industrial wastewater treatment by MB – SBR technology in comparison with SB – SBR technology, Proceeding of 7th ASEAN Environmental Engineering Conference, Puerto Princesa, Palawan, Philippines, WW03, 2014.
- Dang Viet Hung, Performance of a combination system of an aerobic filter and constructed wetlands in domestic wastewater treatment for rural households, Proceeding of 7th ASEAN Environmental Engineering Conference, Puerto Princesa, Palawan, Philippines, WW06, 2014.
- Dang Viet Hung, Van Nu Thai Thien, Treatment of aquatic product processing wastewater by a combined system of A2O reactor with short SRT and MBBR with long SRT", Journal of Science and Technology, Viet Nam Academy of Science and Technology, 53 (5A), 9 - 16, 2015.
- Van Nu Thai Thien, Dang Viet Hung, Nguyen Thi Thanh Hoa, An Ana-Ano-MBR System for Nutrient Removal from Brewery Wastewater at Various Nitrate Recirculation Ratios, Science & Technology Development Journal – Science of The Earth & Environment, Viet Nam National University of Ho Chi Minh City, 2 (2), 5 - 11, 2018.
- Van Nu Thai Thien, Dang Viet Hung, Nguyen Thi Thanh Hoa, An A_2O-MBR system for simultaneous nitrogen and phosphorus removal from brewery wastewater, Science & Technology Development Journal – Science of The Earth & Environment, Viet Nam National University of Ho Chi Minh City, 3(1), 12 - 22, 2019.</td></tr>
<tr><td rowspan="3">Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)</td><td>Organisation</td><td>Role</td><td>Period</td></tr>
<tr><td>Environmental Impact Assessment Appraisal Board of Long An Province (Viet Nam)</td><td>Member</td><td>Since 2014</td></tr>
<tr><td>Environmental Impact Assessment Appraisal Board of Ba Ria – Vung Tau Province (Viet Nam)</td><td>Member</td><td>Since 2021</td></tr>
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	Wastewater Treatment Plants Appraisal Board of Southern Environmental Protection Agency (Vietnam Environment Administration)	*Member*	*Since 2021*

Staff Handbook – Nguyen Huu Hieu

Name (Họ và Tên)	*Assoc. Prof. Dr. Nguyen Huu Hieu*		
Post (Ví trí)	*Head of VNU-HCM Key Laboratory of Chemical Engineering and Petroleum Processing (Key CEPP Lab), HCMUT, VNU-HCM*		
Academic career (Quá trình đào tạo)	*Initial academic appointment* Ph.D *(Chemical Engineering)* *M.Sc (Chemical Engineering)* *B.Eng (Chemical Engineering)*	*Institution* *Chonbuk National University, Korean Ho Chi Minh City University of Technology (HCMUT), VNU-HCM, Vietnam Korea* *Ho Chi Minh City University of Technology HCMUT-VNU-HCM*	*Year* *2012* *2005* *2001*
Employment (Nghề nghiệp)	*Position* *Lecturer*	*Employer* *Faculty of Chemical Engineering, HCMUT-VNU-HCM*	*Period* *2001-present*
Research and development projects over the last 5 years (Thành tích dự án và nghiên cứu trong năm gần)	*1/ Synthesis of Fe_3O_4/Graphene aerogel as adsorbent for phenolic compounds (2017-2019)* *2/ Fabrication of antibacterial fabric impregnated by graphene oxide-based silver nanocomposite for medical applications (2021-2022)*		
Industry collaborations over the last 5 years (Hợp tác với doanh nghiệp)	*Project (tên dự án):* *Partners (đối tác):*		
Patents and proprietary rights	*Title* *Alcohol dehydration system by*		*Year* *2019*

(Sở hữu trí tuệ)	*pervaporation technology using tube membrane*
Important publications over the last 5 years **(Bài Báo nổi bật trong 5 năm gần)**	*1/ N.M. Dat, T.H. Quan, T.N.M. Anh, D.B. Thinh, T.C. Diep, N.D. Hai, P.T. Khang, H.M. Nam, M.T. Phong, N.H. Hieu, Hybrid graphene oxide-immobilized silver nanocomposite with optimal fabrication route and multifunctional application, Appl. Surf. Sci. 551 (2021) 149434. https://doi.org/10.1016/j.apsusc.2021.149434.* *2/ T.T.P.N.X. Trinh, N.T.H. Giang, L.M. Huong, D.B. Thinh, N.M. Dat, D.N. Trinh, N.D. Hai, D.T.Y. Oanh, H.M. Nam, M.T. Phong, N.H. Hieu, Hydrothermal synthesis of titanium dioxide/graphene aerogel for photodegradation of methylene blue in aqueous solution, J. Sci. Adv. Mater. Devices. 7 (2022) 100433. https://doi.org/10.1016/j.jsamd.2022. 100433.* *3/ N.H. Hieu, H.H. Dat, N.M. Dat, N.T. Tinh, P.T. Khang, N.T. Hoang, M.T. Phong, Synthesis of nitrogen and sulfur co-doped reduced graphene oxide by hydrothermal method for fabrication of cathodes in dye-sensitized solar cells, FlatChem. 31 (2022) 100318.* *4/ L.T.M. Thy, N.D. Hai, C.Q. Cong, N.M. Dat, D.N. Trinh, N.T. Son, D.T.Y. Oanh, M.T. Phong, N.H. Hieu, Comparison of in-situ and ex-situ methods for synthesis of iron magnetic nanoparticles-doped graphene oxide: Characterization, adsorption capacity, and Fenton catalytic efficiency, FlatChem. 33 (2022) 100365.* *5/ L.N. Phat, H.C. Nguyen, B.D.D. Khoa, P.T. Khang, D.X. Tien, T.Q. Thang, N.K. Trung, H.M. Nam, M.T. Phong, N.H. Hieu, Synthesis and surface modification of cellulose cryogels from coconut peat for oil adsorption, Cellulose. 29 (2022) 2435–2447.* *6/ N.M. Dat, D.B. Thinh, L.M. Huong, N.T. Tinh, N.T.T. Linh, N.D. Hai, N.D. Viet, N.T. Dat, M.T. Phong, N.H. Hieu, Facile synthesis and antibacterial activity of silver nanoparticles-modified graphene oxide hybrid material: the assessment, utilization, and anti-virus*

	potentiality, Mater. Today Chem. 23 (2022) 100738.		
Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	*Organisation* *Vietnam journal of Chemistry*	*Role* *Member of Editorial Board*	*Period* *2021-present*

Staff Handbook – Nguyen Nhat Huy

Name (Họ và Tên)	*Nguyen Nhat Huy*		
Post (Ví trí)	*Lecturer in Environmental Engineering*		
Academic career (Quá trình đào tạo)	*PhD. in Environmental Engineering*	*National Chiao Tung University, Taiwan*	*2015*
	Bachelor of Environmental Engineering	*Ho Chi Minh City University of Technology (HCMUT), VNU-HCM*	*2006*
Employment (Nghề nghiệp)	*Associate Professor*	*HCMUT*	*2021 - now*
	Lecturer	*HCMUT*	*2008 - 2020*
	Environmental Engineer	*Branch of National Institute of Occupational Safety and Health in the Southern Vietnam*	*2006 - 2008*
Research and development projects over the last 5 years (Thành tích dự án và nghiên cứu trong năm gần)	*Preparation and application of titania nanotubes for photocatalytic removal of indoor VOCs (HCMUT, 2017-2018, 30 million VND)* *Study on the air pollution caused by burning of incense in closed chamber and the ability of photocatalysis for pollution control (HCMUT-OISP, 2018-2019, 30 million VND)* *Preparation of titanium dioxide nanotubes-based photocatalysts for removal of ambient formaldehyde and nitrogen dioxide in air (VNU-HCM, 2019-2021, 100 million VND)* *Study on the removal of non/hard-biodegradable organic compounds in water by using magnetized photocatalyst (HCMUT-CARE, 2021-2022, 100 million VND)*		
Industry collaborations over the last 5 years	*Design, fabrication, and installment of air pollution control devices for boiler, odor control, printing, rubber, and shoe industry*		

(Hợp tác với doanh nghiệp)	
Patents and proprietary rights (Sở hữu trí tuệ)	
Important publications over the last 5 years (Bài Báo nổi bật trong 5 năm gần)	*Selected recent publications from a total of approx.117 publications.* *N.T. Thuy, N.X. Hoan, D.V. Thanh, P.M. Khoa, N.T. Tai, P.Q.H. Hoang, N.N. Huy*, Application of electrocoagulation for printing wastewater treatment: From laboratory to pilot scale, Journal of Electrochemical Science and Technology, 12(1), 21-32, 2021* *T.T. Nguyen*, V.A.K. Tran, L.B. Tran, P.T. Phan, M.T. Nguyen, L.G. Bach, S. Padungthon, C.K. Ta, N.H. Nguyen*, Synthesis of cation exchange resin-supported iron and magnesium oxides/hydroxides composite for nitrate removal in water, Chinese Journal of Chemical Engineering, 32, 378-384, 2021* *P.V.Hao, P.N. Minh, P.N. Hong, N.N. Huy, P.T. Oanh, N.T. Hai, T. D. Trang, D. V. Thanh*, N.T.K. Van, N.V. Dang*, Gram-scale synthesis of electrochemically oxygenated graphene nanosheets for removal of methylene blue from aqueous solution, Nanotechnology, 32(16), ID 16LT01, 2021* *T.T. Nguyen* ,K.A. Huynh, S. Padungthon, A. Pranudta, P. Amonpattaratkit, L.B. Tran, P.T. Phan, N.H. Nguyen*, Synthesis of natural flowerlike iron-alum oxide with special interaction of Fe-Si-Al oxides as an effective catalyst for heterogeneous Fenton process, Journal of Environmental Chemical Engineering, 9(4), ID 105732, 2021* *T.T. Nguyen*, Q.A.N. Thi, N.H. Le, N.H. Nguyen*, Synthesis of a novel porous Ag_2O nanomaterial on ion exchange resin and its application for COD determination of high salinity water, Scientific Reports, 11(1), ID 11487, 2021*
Activities in	*Organisation* *Role* *Period*

specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	*Vietnam Association of Catalysis and Adsorption*	*Member*	*Since 2020*
	Ho Chi Minh City Association for Water and Environment	*Member*	*Since 2020*
	Science & Technology Development Journal - Engineering and Technology (STDJET)	*Guest Editor*	*2021*

Staff Handbook: Duong Thi Thanh

Name	*Duong Thi Thanh*		
Post	*Lecturer (responsible for courses: Solid Waste Treatment Engineering, Ecological Engineering, Unit Operations in Environmental Engineering)*		
Academic career	*Master (Environmental Science)* *Bachelor's degree in Science (Biology)*	*HCMUT-VNU HCM* *University of Science* *Vietnam National University, Hanoi* *Hanoi National University*	*Year 1997* *Year 1994*
Employment	*Lecturer*	*Ho Chi Minh City University of Technology* *Faculty of Environment and Natural Resources*	*Sep. 2001 – Present*
Research and development projects over the last 5 years	*1. A study of the Integrated solutions to improve and protect the water environment for the development sustainable delta.* *Period: 2019 – 2021* *Partners: Ministry of Science and Technology (MOST)* *Code : KC.08/16-20* *2. Treatment of Wastewater with High Nitrogen from industrial zones by ICEAS-MBSBR technology* *Period: 2015 – 2016* *Partners: Vietnam National Univeristy Ho Chi Minh City* *Code : C2015-20-30* 3. *Assessing and proposing septic tank sludge selecting, transportation and treatment activities in Binh Duong province.* *Period: 2009 – 2010* *Partners: the Department of Science and Technology (DOST) Binh Duong Province*		

	Code : TI-2010-09 *4. Assessing the current status and proposing biogas waste treatment and management in Hoc Mon district, Ho Chi Minh city.* *Period: 2011– 2012* *Partners: the Department of Science and Technology (DOST) Ho Chi Minh City* *Code : B2011-20-31* *5. Research on building waste separation model in Tay Ninh town, piloting at ward 1-4* *Period: 2011– 2012* *Partners: the Department of Science and Technology (DOST) Tay Ninh Province* *6. Research on improving the efficiency at Lai Vung – Dong Thap waste treatment factory.* *Period: 2002– 2005* *Partners: the Department of Science and Technology (DOST) Dong Thap Province* *Code : 00.TI.2002.05* *7. Researching and building domestic waste management model at ward 4 and medical waste management from private clinics in Ba Ria Vung Tau province* *Period: 2003– 2004* *Partners: the Department of Science and Technology (DOST) Ba Ria Vung Tau Province* *Code : B2003.20.42TD*
Industry collaborations over the last 5 years	*1. Project title*: *Study on informal sector in waste management in Long An and potential measures to implement WWF's Environmental and Social Safeguards Framework* *Period: 2021 – 2022* *Partners:* World Wide Fund For Nature – Viet Nam (WWF-VIETNAM)

	Project code : BMU 40001913/402619/120001 *2. Project title: Water Supply for Communities to Fight a Pandemic and Continue Farming within the Rice Bowl of Asia* *Period: 2021* *Partners: World Wide Fund For Nature – Viet Nam (WWF-VIETNAM)* *Project code : 40002164* *3. Project title: Field survey data and the Feasibility Study Reports package CPMU-HP2-TDA1-01 for project Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods (MD-ICRSL). Component 1 of MD-ICRSL* *Period: 2019* *Partners:* Ministry of Agriculture and Rural Development *Project code:* KC.08/16-20 *4. Project title: Consultant on developing a material on Tram Chim Wetland Functions and Values and training the material to staffs of Tram Chim Tourist Center and Tram Chim National Park and communities* *Period: 2018* *Partners:* World Wide Fund For Nature – Viet Nam (WWF-VIETNAM) *Project code* **:** *VN207500/350001* *5. Project title: Consultant on Environmental Impact Assessments of the tourism activities on the environment and ecosystem of the Tram Chim National Park* *Period: 2018* *Partners: World Wide Fund For Nature – Viet Nam (WWF-VIETNAM)* *Project code: VN204800 – VZ3100* *6. Project title: Consultant on sustainable finance scheme for conservation and ecotourism* *Period: 2017* *Partners:* World Wide Fund For Nature – Viet Nam (WWF-VIETNAM) *Project code: VN204800 – VZ3100*

	7. Mekong Delta Transport Infrastructure Development Project (MDTIDP) *Period: 2010 – 2017* *Partners:* Project Management Unit of south Waterways (PMU-SIW) *Project code: WB No 4306-VN*
Patents and proprietary rights	*Title* *Year*
Important publications over the last 5 years	***Selected recent publications from a total of 93 peer-reviewed papers:*** Chih-Kuei Chen, Nhat-Thien Nguyen , Thuy-Trang Le , Cong-Chinh Duong and Thi-Thanh Duong, Specifically designed amine functional group doped sludge biochar for inorganic and organic arsenic removal., Sustainable environment research, Vol 31, ID 28, 2021, SCIE. Duong Thi Thanh, Nguyen Thi Le Lien, Nguyen Van Phuoc 2, Hironori Ogata, Gene Eriks, Enhancement of Anaerobic Digestion of Waste Biofractions By Thermal Pretreatment, Journal of Sciences and Technology, 53 - N0 5a – 2015, Study use of algae and mollusca in Treatment of shrimp effluent pilot scale in Can Gio, Journal of Sciences and Technology, 52(4C), 175-185, 2014 ***Book chapters:*** Industrial waste treatment Technologies, Vietnam National Univeristy Ho Chi Minh City, 2005 Hand book environmental pollution in handicraft production" volume 4 Textile dyeing industry, the Department of Science and Technology (DOST) Ho Chi Minh City, 1999.
Activities in specialist bodies over the last 5 years	Team leader and member performed EIA report for projects of the construction sanitary landfill in Xuan Loc district, Dong Nai province, in Tan Hung district, Long An province, Toc Tien district, Ba Ria Vung Tau province, Kien Luong district, Kien Giang province Team leader and member performed EIA report for projects of the construction industrial park, infrastructure, factory, dredging canals to

	improve environment…in Ho Chi Minh city, Binh Duong Province, Dong Nai Province, Long An Province, Tien Giang Province, Ben Tre Province, Ca Mau Province, Kien giang Province, Quang Ngai Province, MARD Consulting services for the technical support and supervision of construction and equipment installation of Wastewater treatment plant for Hamlet 4 Residential Area, Phong Phu Commune, Binh Chanh District, Ho Chi Minh City, Capacity 2.600 m^3/day, 2019, Survey, Assessment state and Design Bau Trai Market for Environmental Sanitation in Duc Hoa district, Long An province, 2019. Consulting services for the technical support and supervision of construction and equipment installation of Wastewater treatment plant for Hamlet 5 and N03 settlement Residential Area, Binh Hung Commune, Binh Chanh District, Ho Chi Minh City, Capacity 3.500 m3/day, 2020 Analyse and evaluate assessment of operation process of waste water treatment Plant in lien chieu district da nang city, capacity 20,000m^3/day, 2021 Consulting services for the technical support and supervision of construction and equipment installation of Wastewater treatment plant for Melosa District 9 Residential Area, District 9, Ho Chi Minh City, Capacity 600 m^3/day, 2022.

Staff Handbook: Nguyen Thai Anh

Name	*Nguyen Thai Anh*		
Post	*Lecturer (responsible for courses: Wastewater Treatment Engineering, Water Treatment Engineering)*		
Academic career	*Lecturer* *Doctorate (Biotechnology in Wastewater Treatment)* *Engineering degree (Environmental Engineering)*	*HCMUT-VNU HCM* *YUAN ZE University, Taiwan* *HCMUT-VNU HCM*	*2021* *2016* *2006*
Employment	*Lecturer*	*Ho Chi Minh City University of Technology (HCMUT-VNU HCM)*	*Dec. 2021 – Present*
Research and development projects over the last 5 years	*Research and synthesis of adsorbent materials combined from chicken eggshell powder and chitosan for reactive dye adsorption* *Period: 2020 – 2021* *Consulting on high-quality agricultural planning of Tien Giang province* *Period: 2021 – 2022* *Assess the current state of economic development and consulting on high-quality agricultural planning of Phu Yen province.* *Period: 2021 – 2022*		
Industry collaborations over the last 5 years	*Project title* *Application of electrochemical technology in textile dyeing wastewater treatment*		
Patents and proprietary rights	*Title*		*Year*

Important publications over the last 5 years	***Selected recent publications from a total of 93 peer-reviewed papers:*** **Thai Anh Nguyen**, Cam Huong Nguyen Thi, Tien Khoi Tran, Vinh Tien Nguyen, Nhat Huy Nguyen. "Comparison of 2D and 3D electrochemical oxidation systems for removal of reactive dyes in water". Desalination and Water Treatment, accepted 18 December 2021. **Thai Anh Nguyen**, Phuoc Toan Phan, Nhat Huy Nguyen, Trung Thanh Nguyen. "Rice husk ash as a great potential adsorbent in multi-purpose adsorption of various pollutants: a review". Egyptian Journal of Chemistry, accepted 17 May 2021. Phuoc Toan Phan, **Thai Anh Nguyen**, Nhat Huy Nguyen, Long Giang Bach, Phuoc Sang Le and Trung Thanh Nguyen. "The synthesis of triamine-bearing porous silica for the effective adsorption of nitrate and phosphate ions". Asia-Pacific Journal of Science and Technology, accepted 01 June 2021. Trung Thanh Nguyen, Bao Tran Nguyen Thi, Phuoc Toan Phan, Tri Thich Le, Quynh Anh Nguyen Thi, Long Giang Bach, **Thai Anh Nguyen**, Nhat Huy Nguyen. "Synthesis of microcrystalline cellulose from banana pseudo-stem for adsorption of organics from aqueous solution". Engineering and Applied Science Research, accepted 04 November 2020. **Thai Anh Nguyen**, Vinh Tien Nguyen, Thi Thanh Hieu Tran, Thi Quynh Nhu Le, Nhat Huy Nguyen. "Batch and column adsorption of reactive dyes by eggshell powder–chitosan gel core-shell material". Moroccan Journal of Chemistry, accepted 03 Jun 2020. Phuoc Toan Phan, **Thai Anh Nguyen**, Nhat Huy Nguyen, Trung Thanh Nguyen. "Modelling approach to nitrate adsorption on triamine-bearing activated rice husk ash". Engineering and Applied Science Research, accepted 16 Dec 2019. 7. **Thai Anh Nguyen**, Thi Thuy Trang Dinh, Thi Ngoc Giau Nguyen, Vinh Tien Nguyen, Huu Trung Bui. "Chitosan chemically modified with Tri-polyphosphate for sequent adsorption of copper and phosphate ions from water". 2021 ICERES Intl. Conference, 29 Oct

	2021. 8. **Thai Anh Nguyen**, Nhat Huy Nguyen, Thi Ngoc Mai Hoang, Hong Ngoc Linh Nguyen, Tien Khoi Tran. "Removal of reactive dyes in wastewater by electro-Fenton process". 5th GTSD 2020 Intl. Conference (29/12/2020). 9. **Thai Anh Nguyen**, Uy Dong Nguyen, Du Triet Quang Huynh. "Removal of textile wastewater by the fluidized-bed Fenton reaction process". Journal of Technical Education Science, HCMC, No.9 (9/2020). 10. **Thai Anh Nguyen**, Viet Hung Dang, Phi Yen Cao, Thi Kim Quyen Le. "Domestic wastewater treatment by using Jasmine-wetland pilot model". Journal of Technical Education Science, HCMC, 2020.		
Activities in specialist bodies over the last 5 years	*Faculty's Quality Assurance Team*	*Member*	*1 December 2021*

Staff Handbook: Phan Xuan Thanh

Name	*Phan Xuan Thanh*		
Post	*Lecturer (responsible for courses: Air Pollution Control, Ventilation and noise Pollution Control Engineering)*		
Academic career	*Lecturer*	*HCMUT-VNU HCM*	*2009*
	Master of Science in Environmental Engineering (solid wase treatment)	*Institute for Environment and Resources, National University of HCM City*	*2005*
	Bachelor of Science in Chemical Engineering (chemistry)	*Ho Chi Minh City University of Technology*	*1996*
Employment	*Lecturer*	*Ho Chi Minh City University of Technology*	*Sep. 2009 - Present*
Research and development projects over the last 5 years	*Project title:* Tran Tien Khoi, Kihong Park, Youngmin Noh, Lee KwangYul, Phan Xuan Thanh, Lai Duy Phuong, *Characterization of Fine and Ultrafine Particulate Matter in Hochiminh City*, Science and Technology for Sustainability, Vol. 12, 85-90, 2015 *Partners*		
Industry collaborations over the last 5 years	*Study on informal sector in waste management in Long An and potential measures to implement WWF's Environmental and Social Safeguards Framework* *Period: 2020 – 2021* *Partners:*		
Patents and proprietary rights	*Title*		*Year*

Important publications over the last 5 years	*Phan Xuân Thạnh, Characterization of fine and Ultrafine particulate matter in Ho Chi Minh City, Science and technology for sustainablility, Vol. 12, 85-90, 2015*		
Activities in specialist bodies over the last 5 years	*NEWENVICO COMPANY LIMITED*	*Environmentat consulting*	*2018-2021*

Staff Handbook- Bui Xuan Thanh

Name (Họ và Tên)	***Bui Xuan Thanh***		
Post (Ví trí)	*Head of Department, Head of VNUHCM Key Laboratory*		
Academic career (Quá trình đào tạo)	*Initial academic appointment*	*Institution*	*Year*
	PhD, Environmental Engineering (French Goverment full scholarship, Exchange program)	*Asian Institute of Technologyn (AIT), Thailand & Institut National des Sciences Appliquees de Toulouse (INSA-Toulouse), France*	*2006 - 2009*
	M.Eng, Environmental Enginering	*Asian Institute of Technologyn (AIT), Thailand*	*2003 – 2005*
	Engineer Degree, Chemical Engineering,	Ho Chi minh University of Technology, VNU-HCM, Viet Nam	*1*996 – 2001
Employment (Nghề nghiệp)	*Position*	*Employer*	*Period*
	Head, VNU-HCM Key Laboratory of Advanced Water Treatment Technology	*Vietnam Naional University Ho Chi Minh (VNU-HCM)*	2020-present
	Head, Dept. Of Water Ccience and Technology,	Faculty of Environment & Nature Resources. Ho Chi Minh City University of Technology (HCMUT)	2014 – present
	Associate Professor	HCMUT	2013-present
Research and	*Name of project or research focus (Tên dự án, đề tài):*		

development projects over the last 5 years **(Thành tích dự án và nghiên cứu trong năm gần)**	*Development of algae – bacteria systems for wastewater treatment (2021-2026; VNU-HCM);* *Nanoassited bioremediation of diffused dioxins in soil and sediment (Co-Pi) (2021 – 2023; PEER – NAS; USA);* *Testin of F-Cap fiber filtration system for various water source (2021, Kyowakiden, Japan,…….)* *Developmet of membrane bioreactor coupling with salt tolerant microorganism treating saline wastewater (VNU-HCM; 2020 – 2021)* *Fouling control and Nutrient Removed by Reciprocating Memrane Bioreactor (2020; SATU 2020, Taiwan);* *Enhance Organic and Nutrient Removal form Wastewater by Algae Granulation (2020; SATU 2020, Taiwan);* *Development of Novel Multifunctional Nanostructured Materials for the Photocatylic Degradation of Emerging Pollutants (Co-Pi as Asean Partner) (2019 – 2020; Asean – India Science & Technology Development Fund)* *International Cooperation on Soil and Groundwater Remediation (2019; Taiwan Association on Soil & Groundwater Environmental Protection & Taiwan EPA);* *Application of energy-saving membrane technology in nutrient treatment and microplastics removal (2018 – 2019; University's Research Project – CARE);* . *Application of Membrane photobioreactor for wastewater treatment coupling with algae biomass cultivation for production of biomaterials (2019 – 2022; Nafosted, Ministry of Science & Technology – Viet Nam)* . *Energy – efficient water management system for an industrial park in Vietnam (ERWIN), (2018 – 2019; Federal Ministry of the Environment, Germany)* . *Study on the pilot-scale LENA membrane process treating domestic wastewater and microbial rejection test using Kolon membrane (2017 – 2018, Kolon membrane, Kolon industry, Korea)* . *Wastewater treatment for Textiles and Dyeing Industrial by Membrane*

	Bioreactor Coupling with Advanced Oxidation Processes (2010 – 2011; JICA-Japan)
Industry collaborations over the last 5 years (Hợp tác với doanh nghiệp)	*Survey, performance evaluation and proposing appropriate technology improvement for 15 wastewater treatment systems of Saigon-Coop supermarket chain (COOP)* *Improvement of water envirotment of Trang Bang Industrial Part, Tay Ninh province (Trang Bang Industrial Park)* *Improvement of Water environment of Le Minh Xuan Industrial Park, Binh Chanh District, HCMC (Le Minh Xuan Industrial Park)* *The solution to increasing nitrogen removal capacity in the wastewater treatment system of Linh Trung Industrial Park 3 with a capacity of 4000 m^3/day (Linh Trung Industrial Park 3.*
Patents and proprietary rights (Sở hữu trí tuệ)	*Title* — *Year* *Ngo Thi Tra My, Nguyen Cong Nguyen (2020). A submerged tubular membrane distillation (STMD) method and apparatus for desalination,* ***US Patent*** — *submitted 2020* *Wetland roof technology for treating domestic wastewater (US Patent 9884780B2)* — *2018* ***Bui Xuan Thanh*** *& Nguyen Phuong Thao (2020). Phuong Phap Xu Ly Nuoc Thai Sau Be Tu Hoai Bang Be Loc Sinh Hoc Xuoi Dong Gia The Day Sinh Hoc (Down-flow Hanging Media Bioreactor* — 2019
Important publications over the last 5 years (Bài Báo nổi bật trong 5 năm gần)	*Hoang H.G., Chiang C.F., Lin C., Wu C.Y., Lee C.W., Cheruiyot N.K., Tran H.T.,* ***Bui X.T.*** *(2021). Human Health Risk Simulation and Assessment of Heavy Metal Contamination in a River Affected by Industrial Activities, Environmental Pollution, 285, 117414. (SCIE, Q1, IF: 6.792, ISSN: 0269-7491).* *Nguyen T.T.,* ***Bui X.T.****, Ngo H.H, Nguyen T.T.D, Nguyen K.Q., Nguyen H.H, Huynh K.P.H, Némery J., Fujioka T., Duong C.H., Varjani S.*

	Dang B.T. (2021). Nutrient recovery and microalgae biomass production from urine by membrane photobioreactor at low biomass retention times, Science of The Total Environment, 785, 147423 (SCIE, Q1, IF: 6.511, ISSN: 0048-9697). *Dang B.T., **Bui X.T.*,** Tomoaki I.*, Ngo H.H, Jahng D., Lin C.*, Chen S.S., Lin K.Y., Nguyen T.T, Nguyen D.D., Saunders T. (2021). Microbial community response to Ciprofloxacin toxicity in sponge membrane bioreactor, Science of the Total Environment, 773, 145041. (SCIE, Q1, IF: 6.511, ISSN: 0048-9697).* *Tran H.T., Lin C.T.* **Bui X.T.*,** Itayama T., Dang B.T., Cheruiyot N.K., Hoang H.G., Vu C.T. (2021). Bacterial community progression during food waste composting containing high dioctyl terephthalate (DOTP) concentration, Chemosphere, 265, 129064. (SCIE, Q1, IF: 5.778; ISSN: 0045-6535).* *Ngo H.H., **Bui X.T**., Nghiem D. Long, Guo W. (2020). Green Technologies for Sustainable Water (Editorial), Bioresource Technology, 317, 123978. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524)* *Nguyen T.T.D., Nguyen T.T., Binh Q.A., **Bui X.T.*,** Ngo H.H, Vo H.N.P, Lin K.Y.A, Vo T.D.H, Guo W., Lin C.T., Breider F. (2020). Co-culture of microalgae-activated sludge for wastewater treatment and biomass production: Exploring their role under different inoculation ratios, Bioresource Technology, 314, 123754. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524)* ***Bui X.T.***, Vo T.D.H., Thao N.P., Nguyen V.T., Dao T.S., Nguyen P.D. (2020). Microplastics pollution in wastewater: characteristics, occurrence and removal technologies, Environmental Technology & Innovation, 19, 101013 (SCIE, Q1, IF: 3.356, ISSN: 2352-1864).* *Li M.H, Lin K.Y.*, Yang M.T. **Bui X.T.*,** Tsang D.C.W., (2020). Prussian Blue Analogue-derived Co/Fe Bimetallic Nanoparticles immobilized on S/N-doped Carbon Sheet as a Magnetic Heterogeneous Catalyst for Activating Peroxymonosulfate in Water, Chemosphere, 244, 125444. (SCIE, Q1, IF: 5.778; ISSN: 0045-6535).* *Vo H.N.P., Le G.K., Nguyen T.M.H., **Bui X.T.*,** Nguyen K.H., Rene*

	E.R., Vo T.D.H, Cao N.D.T., Mohan R. (2019). Acetaminophen micropollutant: Historical and current occurrences, toxicity, removal strategies and transformation pathways in different environments, Chemosphere, 236, 124391. (SCIE, Q1, IF: 5.778; ISSN: 0045-6535). *T.D.H Vo T.D.H., **Bui X.T.*,** Nguyen D.D., Nguyen V.T., Ngo H.H., Guo W., Nguyen P.D., Nguyen C.N., Lin C. (2018). Wastewater treatment and biomass growth of eight plants for shallow bed wetland roofs, Bioresource Technology, 247, 992-998. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).* *Vo, C.T. Vu, Lin C.*, **Bui, X.T.*,** Erh, W.C., T.K.O. Nguyen, Shin, Y.C., Rene E.R. (2019). An overview of the development of vertical sampling technologies for ambient volatile organic compounds (VOCs), Journal of Environmental Management 247 (2019) 401–412. (SCIE, Q1, IF: 5.647, ISSN: 0301-4797).* *Nguyen T.T, **Bui X.T.***, Dang B.T, Ngo H.H., Jahng D., Fujioka T., Chen S.S., Dinh Q.T., Nguyen N.C., Nguyen P.T.V. (2019). Effect of Ciprofloxacin dosage on the performance of sponge membrane bioreactor treating hospital wastewater, Bioresource Technology, 273, 573-580. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).* *Vo H.N.P**., Bui X.T.***, Nguyen T.M.H., Koottatep T & Bandyopadhyay A. (2018). Insights of the Removal Mechanisms of Pharmaceutical and Personal Care Products in Constructed Wetlands, Current Pollution Reports, 4, 93-103. (SCIE, IF: 6.000, ISSN: 2198-6592)* *Vo T.D.H., Bui X.T.*, Nguyen D.D., Nguyen V.T., Ngo H.H., Guo W., Nguyen P.D., Nguyen C.N., Lin C. (2018). Wastewater treatment and biomass growth of eight plants for shallow bed wetland roofs, Bioresource Technology, 247, 992-998. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).* *Tin N.T., **Thanh B.X.***, Phuc L.V., Dan N.P., Guo W., Ngo H.H. (2017). Removal of antibiotics in sponge membrane bioreactors treating hospital wastewater: Comparison between hollow fiber and flat sheet membrane systems, Bioresource Technology, 240, 42-49. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).*

	. *Nhat P.T., Van T.T.T., Biec H.N., Dan N.P., Thanh B.X.*, Trong D.B., Tuan D.V., Park J., Guo W. Hao N.H. (2017). High rate nitrogen removal by ANAMMOX internal circulation reactor (IC) for old landfill leachate treatment, Bioresource Technology, 234, 281-288. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).*
Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	*Organisation* — *Role* — *Period* *NAFOSTED* — *Member* — *2017 – 2019, 2019 – 2021, 2020 – 2022* Bioresource Technology (BITE, Elsevier, SCIE, Q1), — *Editor Board Member* — 2020 *The 2nd Green Technologies for Sustainable Water (GTSW) Conference – 2019* — *General Chair* — *2019* *Taiwan-Vietnam Workshop on "Groundwater and Soil Contamination and Remediation",* — *Chairman* — *2019* *The 5th International Symposium of Environmental Analytical Chemistry (ISEAC 5 – Asia),* — *Co -Chair* — *2017*

Staff Handbook – Dang Vu Bich Hanh

Name	***Đặng Vũ Bích Hạnh***		
Post	*Head of Department*		
Academic career	*Initial academic appointment*	*Institution*	*Year*
	PhD, Biology, Microbiology	*VietNam National University of HCMC*	*2005 – 2011*
	M.Eng, Food Processing	*University of Technology, VNU- HCMC*	*1996 – 1999*
	Bachelor, Biology	*Department of University, HCMC*	*1986 – 1990*
Employment	*Position*	*Employer*	*Period*
	Head, Dept. of Environmental Engineering	Faculty of Environment & Nature Resources. Ho Chi Minh City University of Technology (HCMUT)	*2017 – present*
	Head, Laboratory of Environmental Analysis		*2012 – 2017*
Research and development projects over the last 5 years (Thành tích dự án và nghiên cứu trong năm gần)	*Biochip using Peptide Nucleotid Acid for detection E. coli* (2020 – 2021, HCMUT-VNU HCMC). *Research on composting Pangasius sp. pond sediments as microbial organic fertilizers (2020 – 2021,* HCMUT-VNU HCMC*)* *Impact of water claim on agricultural crops as garden plants and topsoil (2017 – 2018, VNU HCMC)* *Potential of Black Soldier Fly Larvae on Water hyacinth treatment (2017 – 2018,* HCMUT-VNU HCMC) Developing technological process for production of microbial organic fertilizer from indigenous microorganisms and food factory waste sludge. *(2016 – 2017 ,AUN-SEED net funding,* HCMUT-VNU HCMC). *Reuse of Brewery Sludge through Aerobic Static Composting (2016 – 2017,* HCMUT-VNU HCMC)		

	Correlation between radiation-resistant bacteria and radioactive pollution at Titan mines in Binh Dinh Province (2016 – 2017, VNU HCMC)
Industry collaborations over the last 5 years **(Hợp tác với doanh nghiệp)**	Technical Training course*"Operating and Monitoring in Textile Dyeing Waste water treatment with Biological System"*, 2020, Far Eastern Polytex, VietNam. Team Leader, Technical Training Course *"Supervise and standardize practical operations in the textile dyeing wastewater treatment laboratory"*, 2020, Far Eastern Polytex, VietNam. Team Leader, Consulting, *"Operation and monitoring to improve the treatment efficiency of the textile dyeing wastewater treatment system by biological methods",* 2020 – 2021, Far Eastern Polytex, VietNam. Team Leader, Consulting, *"Developing outline of Project on Sustainable Living Waste Management in Binh Son - Ninh Chu seashore*", Department of Natural Resources and Environment, Ninh Thuan Province, 2019 Team Leader of Project *"Deploying the Action Program for sustainable management of domestic waste at Binh Son - Ninh Chu seashore*", Department of Natural Resources and Environment, Ninh Thuan Province, 2019
Patents and proprietary rights **(Sở hữu trí tuệ)**	*Title* *Year*
Important publications over the last 5 years **(Bài Báo nổi bật trong 5 năm gần)**	Hyojung C.,Eunji J.,Viet Huu Ng.,Dang Vu Bich Hanh,Ng.Phuoc Dan,Kyung-Hoon S.,Seunhee Han, *Characteristics of sediment affecting monomethylmercury accumulation in benthic fish of the Mekong Delta*, Environmental Toxology and Chemistry, Vol.38; Issue 3, 503-510, 2019 Masato Nakamura, Fumiko Oritate, Yoshito Yuyama, Masaru Yamaoka, Nguyen Phuoc Dan, Dang Vu Bich Hanh, *Ammonia volatilization from Vietnamese acid sulfate paddy soil following application of digested slurry from biogas digester,* Paddy and Water Environment, January 2018,Volume 16,Issue 1 , 193–198, 2018. Emilie Strady,Vu Bich Hanh Dang,Julien Némery, Stéphane Guédron,Quoc Tuc Dinh,Herv Denis, Phuoc Dan Nguyen, *Baseline seasonal investigation of nutrients and trace metals in surface waters and sediments along the Saigon*

	River basin impacted by the megacity of Ho Chi Minh (Vietnam), Environment Science Pollution Research; Springer-Verlag Berlin Heidelberg, pp 1–18, 2017 F.Oritatae,Y.Yuyama,M.Nakmura,M.Yamaoka,N.P.Dan,D.V.B.Hanh,K.Mochi dzuki,A.Sakoda, *Regional Dianosis of Biomass Use in Suburban Village in Southern Vietnam,* Journal of the Japan Institute of Energy, 94, 805-829, 2015
Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	*Organisation Role Period* *Journal of Saigon University – Editorial Board – (2018 – 2020)* *VNU Journal of Science – Reviewer – (2017 – present)* *VNU HCMC Science and Technology Development Journal – Editorial Board – (2018 – present)*

Staff Handbook – Dao Thanh Son

Name (Họ và Tên)	Đào Thanh Sơn		
Post (Ví trí)	Lecturer (courses of Ecology; Benefits and risks of microalgae in aquatic environment; Environmental monitoring; Environmental toxicology)		
Academic career (Quá trình đào tạo)	Associate Professor PhD (biology, major: ecology) MSc (biology; major: ecology) BSc (in biology)	HCMUT, VNU-HCM Humboldt University, Berlin, Germany University of Sciences, VNU-HCM University of Sciences, VNU-HCM	2018 2007 – 2011 2000 – 2005 1993 – 1997
Employment (Nghề nghiệp)	Lecturer Coordinator of the English program on NR&EM Researcher Deputy head, Department of Environmental Toxicology Head, Department of Environmental Toxicology Reseatcher	HCMUT – VNU-HCM HCMUT – VNU-HCM Institute for Environment & Resources (IER) – VNU-HCM IER – VNU-HCM IER – VNU-HCM Institute of Tropical Biology, VAST	2014 – present 2014 – 2018 2005 – 2014 2011 – 2013 2013 – 2014 1997 – 2005
Research and development projects over the last 5 years (Thành tích dự án và nghiên cứu trong năm gần)	Occurrence of microplastics, and their accumulation in and depuration from blue mussels from Vung Tau coastal water (2020 – 2021, Tc-MTTN-2020-02), Project Investigator. 176 mil. VND Responses of phytoplankton and zooplankton upon exposures to plastic leachates and cadmium (2020 – 2021, C2020-20-41), Project Investigator. 50 mil. VND Detrimiental impacts of plasticizers on freshwater zooplankton (2019 – 2021, Nafosted project no 106.99-2019.39), Project Investigator. 759 mil. VND Cyanobacterial toxin contamination in surface water used for drinking wate		

	supplies and community health safety in Southern Vietnam (Tc-MTTN-2016-04), Project Investigator. 50 mil. VND Toxicity of cyanobacterial toxins to micro-crustaceans (2015 – 2018, 106-NN.04-2014.69), Project Investigator. 700 mil. VND
Industry collaborations over the last 5 years **(Hợp tác với doanh nghiệp)**	N/A
Patents and proprietary rights (Sở hữu trí tuệ)	N/A
Important publications over the last 5 years **(Bài Báo nổi bật trong 5 năm gần)**	Nguyen, A.T., Nemery, J., Gratiot, N., Garnier, J., Dao, T.S., Thieu, V., Laruelle, G.G., 2021. Biogeochemical functioning of an urbanized tropical estuary: implementing the generic C-GEM (reactive transport) model. Science of the Total Environment 784, 147261. Nguyen, T.D., Ngo, X.Q., Pham, T.L., Dao, T.S., 2020. Ecotoxicological investigation of cyanobacterial crude extracts to *Daphnia magna* under subchronic test conditions. Turkish Journal of Zoology 44, 498-507. Dinh, K.V., Nguyen, Q.T.T., Vo, T.M.C., Bui, T.B., Dao, T.S., Tran, D.M., Doan, N.X., Truong, T.S.H., Wisz, M.S., Nielsen, T.G., Vu, M.T.T., Le, M.H., 2020. Interactive effects of extreme temperature and a widespread coastal metal contaminant reduce the fitness of a common tropical copepod across generations. Marine Pollution Bulletin 159, 111509. Bui, X.T., Vo, T.D.H., Nguyen, P.T., Nguyen, V.T., Dao, T.S., Nguyen, P.D., 2020. Microplastics pollution in wastewater: characteristics, occurrence and removal technologies. Environmental Technology & Innovation 19, 101013. Vo, T.M.C., Bui, B.T., Wiegand, C., Dinh, K.V., Dao, T.S., 2020. Responses of a tropical micro-crustacean, *Daphnia lumholtzi*, upon exposures to dissolved toxins and living cells of cyanobacteria. Environmental Technology & Innovation 19, 100973. Pham, T.L., Dao, T.S., Pham, N.K.T., Bui, H.N., Ngo, T.T.H., Bui, M.H.,

2020. Lipid production combined with removal and bioaccumulation of Lead (Pb) by the green alga *Scenedesmus* sp. Polish Journal of Environmental Studies 29(2), 1785-1791.

Bui, T. Dao, T.S., Faassen, E., Lurling, M., 2018. Cyanobacterial blooms and microcystins in Southern Vietnam. Toxins 10(11), 471. doi.org/10.3390/toxins1011047.

Vo, T.M.C., Pham, N.H., Nguyen, T.D., Bui, M.H., Dao, T.S., 2018. Development of *Daphnia magna* under exposure to ampicillin. Architecture Civil Engineering Environment 11(3), 147-152.

Dao, T.S., Vo, T.M.C., Wiegand, C., Bui, B.T., Dinh, V.K., 2018. Transgenerational effects of cyanobacterial toxins on a tropical micro-crustacean *Daphnia lumholtzi* across three generations. Environmental Pollution 243 (B), 791-799.

Vo, H.N.P., Bui, X.T., Nguyen, T.T., Nguyen, D.D., Dao, T.S., Cao, N.D.T., Vo, T.K.Q., 2018. Effects of nutrient ratios and carbon dioxide bio-sequenstration on biomass growth of *Chlorella* sp. in bubble column photobioreactor. Journal of Environmental Management 219, 1-8.

Bui, T., Dao, T.S., Vo, T.G., Lurling, M., 2018. Warming affects growth rates and microcystin production in tropical bloom-forming *Microcystis* strains. Toxins 10 (3), 123. DOI:10.3390/toxins10030123

Pham, T.L., Shimizu, K., Dao, T.S., Motoo, U., 2017. First report on free and covalently bound microcystins in fish and bivalves from Vietnam: Assessment of risks to humans. Environmental Toxicology and Chemistry 36 (11), 2953-2957.

Bui, M.H., Pham, T.L., Dao, T.S., 2017. Prediction of cyanobacterial blooms in the Dau Tieng reservoir using artificial neural network. Marine and Freshwater Research 68 (11), 2070-2080.

Pham, T.L., Dao, T.S., Tran, N.D., Nimptsch, J., Wiegand, C., Motoo, U., 2017. Influence of environmental factors on cyanobacterial biomass and microcystin concentration in the Dau Tieng Reservoir, a tropical eutrophic water body in Vietnam. International Journal of Limnology 53, 89-100.

Dao, T.S., Le, V.N., Bui, B.T., Dinh, K.V., Wiegand, C., Nguyen, T.S., Dao,

C.T., Nguyen, V.D., To, T.H., Nguyen, L.S.P., Vo, T.G., Vo, T.M.C., 2017. Sensitivity of a tropical micro-crustacean (*Daphnia lumholtzi*) to trace metals tested in natural water of the Mekong River. Science of the Total Environment 571, 1360-1370.

Pham, A.D., Nguyen, T.M.L., Nguyen, T.T.H., Dao, T.S., 2017. Ecological health monitoring used for river ecosystems in Vietnam: challenges and prospects. Proceedings of the 1st International Conference on Environmental Technology and Innovations, Hochiminh City. 187 – 195.

Dang, M.T., Pham, A.D., Dao, T.S., Lapcik, V., 2017. Benthic macroinvertebrates from Dongnai estuaries in Southern Vietnam. Proceedings of the 1st International Conference on Environmental Technology and Innovations, Hochiminh City. 203 – 208.

Dao, T.S., Nguyen, T.P.L., Vo, T.K.T., 2017. Toxicity of cyanobacterial extract from *Cylindrospermopsis raciborskii* and potential solutions for mitigation the cyanobacterial mass development in Xuan Huong Lake, Da Lat City, Vietnam. Proceedings of the 1st International Conference on Environmental Technology and Innovations, Hochiminh City. 213 – 217.

Dao, T.S., Wiegand, C., Nimptsch, J., 2016. Dynamics of cyanobacteria and cyanobacterial toxins and their correlation with environmental parameters in Tri An Reservoir, Vietnam. Journal of Water and Health, 14 (4), 699-712.

Pham, T.L., Shimizu, K., Kanazawa, A., Gao, Y., Dao, T.S., Utsumi, M., 2016. Microcystin accumulation and biochemical responses in the edible clam *Corbicula leana* P. exposed to cyanobacterial crude extract. Journal of Environmental Sciences 44, 120-130.

Bui, T.K.L., Do-Hong, L.C., Dao, T.S., Hoang, T.C., 2016. Copper toxicity and the influence of water quality of Dongnai River and Mekong River waters on copper bioavailability and toxicity to three tropical species. Chemosphere 144, 872-878.

Pham, T.L., Dao, T.S., Shimizu, K., Yu, G., Do-Hong, L.C., Sugiura, N., Utsumi, M., 2016. Isolation and characterization of microcystin-producing cyanobacteria from Dau Tieng Reservoir, Vietnam. Nova Hedwigia 101 (1-2), 3-20

Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	Fulbright University		
	Loyola University Chicago		Nov. 2020
	Several universities in VN (e.g., HUNRE, Uni. of Science, Nguyen Tat Thanh Uni.)	Invited speaker	2018 – 2020
		Lecturer	2011 – present
	Suan Sunandha Science and Technology Journal (SSSTJ, Thailand)	Lecturer	2018 – present
	Several ISI journals (e.g. EP, STOTEN, ET&I, EMAS, ESPR, AQUATOX, Chemosphere)	Associate editor	2012 – present
		Reviewer	
	International Society for the Study of Harmful Algae (ISSHA)	Member	2010 – 2014
	Society of Environmental Toxicology and Chemistry (SETAC)	Member	2015 – 2016
	Membership without a specific role need not be mentioned		

Staff Handbook - Du My Le

Name	**DU MY LE**		
Post	*Lecturer in Environmental Engineering*		
Academic career	**Initial academic appointment** *M.Sc (Environmental Engineering)* *B.Eng (Chemical Engineering)*	**Institution** *Pukyong National University, Korea* *Ho Chi Minh City University of Technology, Vietnam*	**Year** *2004* *1998*
Employment	**Position** Lecturer Researcher	**Employer** *Faculty of Environment & Nature Resources, Ho Chi Minh City University of Technology (HCMUT)*, Vietnam *Faculty of Chemical Engineering, Ho Chi Minh City University of Technology (HCMUT)*, Vietnam	**Period** *2004-present* *1998-2000*
Research and development projects over the last 5 years	*1/ Control of welding fumes: Design and performance evaluation of Electrostatic Precipitator system (2020-2022).* *2/ Air pollution control and monitoring for the Nha Bich Rubber Manufacturer, Bu Dop, Binh Phuoc Province (2019).* *3/ Air Pollution Control and Design for Vietnam Finland International School – VFIS, HCMC (2018-2019).* *4/ Air quality assessment and air pollution control for International Rubber Manufacturer, Long An Province (2017).* *5/ Research and design of the combination device for collection, pre-treatment, and salvage of water hyacinth on canals and canals in Long An Province (2019-2024).*		
Industry	*Project title:*		

collaborations over the last 5 years	*Assessment of exhaust emissions from vehicles in real traffic conditions - Case study of pre-2010-manufactured vehicles, Ho Chi Minh City.* *Project of collaboration between Swedish Meteorological and Hydrological Institute (SMHI) and Vehicle Certification Department (VAQ), Vietnam Register Training Center (VRTC), 2015-2016, 2018-2019, 2021-2022.* *Study on informal sector in waste management in Long An Province and potential measures to implement WWF's Environmental and Social Safeguards Framework (Project code: BMU 40001913/402619/120001), 2021-2022.* *Project of collaboration between HCMUT and World Wide Fund For Nature – Viet Nam (WWF-Vietnam).*
Patents and proprietary rights	Patent:
Important publications over the last 5 years	*1/ Hoang Bao Hung Nguyen and MyLe Du, Design and manufacture of welding fumes electrostatic precipitator and study on parameters influencing the filtration performance, Journal of Applied Mechanics and Materials, ISSN: 1662-7482, Vol. 907, pp 115-129 doi:10.4028/p-3302mx, 2022.* *2/ Quang Tien Nguyen, MyLe Du, and Thi Thanh Xuan Phan, Study on Influence of Technological Parameters on the Quality of Rubber-Phylon Soles when Concurrent Pressing, 1st International Colloquium on Advanced Convergence Engineering (ICACE 2018), Busan - South Korea, 2018.* *3/ Anh-Thy Vo, Takahashi Fumitake, My-Le Du, and Takayuki Shimaoka, Study on leaching ability and chemical fractions of heavy metal and other characteristics of the fly ash from solid waste incineration in Vietnam and Japan, Journal of Chemical Engineering of Japan, Vol.47, 2017.* *4/ Sung-Ho Hong, MyLe Du, Kyoung-Hee Lee, and Jea-Keun Lee, Residual Chlorine Distribution and Disinfection during Electrochemical Removal of Dilute Ammonia from an Aqueous*

	Solution, Proceedings of the 29th Spring-Conference of Korea Society of Waste Management, Pusan - Korea, South, 2017.		
Activities in specialist bodies over the last 5 years	*Organisation* *Vietnam Green Building Council (VGBC)*	*Role* *Member*	*Period* *2017-present*

Staff Handbook – Lam Van Giang

Name	*Lam Van Giang*		
Post	*Environmental Engineering*		
Academic career	*Initial academic appointment*	*Hochiminh University of Techonology*	*Year 2000*
	Doctorate (Study of the Performance of a Bioreactor System Using Microbial Support Materials Derived from Solid Wastes)	*University of The Philippinese*	*Year 2006-2010*
	Master degree (Study of Surface water monitoring by using Bioassay)	*Nagaoka University of Technology*	*2001-2003*
	Undergraduate degree (Highbuilding on the soft ground)	*Hochiminh University of Techonology*	*Year 1994-2000*
Employment	*Position : Head of Dept NREM*	*Lecturer*	*Period 2000- now*
Industry collaborations over the last 5 years	*Project title : Recovering energy and charcoal from solid waste by new model incinerator (2018-2021)* *Partners : Nam Phong Co. Ltd.*		
Patents and proprietary rights	*N/A*		

Important publications over the last 5 years	Lam Van Giang and et al; HEAVY METALS EMISSIONS FROM JOSS PAPER BURNING RITUALS AND THE AIR QUALITY AROUND A SPECIFIC INCINERATOR, Materials Today: Proceedings ; ELSEVIER, 2020.08.686, , 2020 *Lam Van Giang and* et al*; STUDY ON ORGANIC POLLUTION TREATMENT FROM VAN THANH CANAL WATER BY VETIVER GRASS MODEL ON GRAVEL AND SAND IN WATER CIRCULATION CONDITIONS, 5th INTERNATIONAL CONFERENCE OF CHEMICAL, 2020, Kuala Lumpur – Malaysia* Giang Lam Van and et al, STUDY ON ENHANCING THE COD REMOVING UTILIZING CATIONIC STARCH REPLACE THE PAC IN COAGULATION-FLOCCULATION PROCESS FOR FISHERY PROCESSING WASTEWATER, the 7th Joint Symposium on Chemistry, Environment, Natural Sciences and Technologies, 2019, HoChiMinh - Việt Nam Giang Lam Van and et al; STUDY THE EXISTING OF THE HEAVY METALLIC ELEMENTS IN THE VIETNAM JOSSPAPER MATERIALS AND EFFECTS OF ASH APPLIED ON LAND TO GERMINATION RATE, The 7th Joint Symposium on Chemistry, Environment, Natural Sciences and Technologies, Ho Chi Minh City, Viet Nam, October 25, 2019, HoChiMinh - Việt Nam Giang Lam Van and et al, ENERGY RECOVERY OF SEWAGE SLUDGE TREATMENT BY ANAEROBIC CODIGESTION, INTERNATIONAL CONFERENCE ON ADVANCED TECHNOLOGY AND SUSTAINABLE DEVELOPMENT 2016, 2016, Hồ Chí Minh - Việt Nam		
Activities in specialist bodies over the last 5 years	*Organisation: Hochiminh city water and environment association (Vietnam)*	*Role: member*	*Period: 2010-present*
	Society for the Conservaiton of Philippine Wetland, Inc. (SCPW) (Philippine)	*Role: member*	*Role: 2020-present*

Staff Handbook – Le Van Khoa

Name (Họ và Tên)	***Le Van Khoa***		
Post (Ví trí)	*Senior Lecturer*		
Academic career (Quá trình đào tạo)	*Initial academic appointment*	*Institution*	
	PhD. Environmental Science	Wageningen UR-Netherland	*Year* 2002 - 2006
	MSc. Water Quality Management	IHE-Delft-Netherlands	1998
	M.Eng, Water and Environmental Resources Management	IHE-Delft-Netherlands	1996 – 1997
	Engineer Degree, Environmental Engineering,	Polytechnic University - Ho Chi minh City, Viet Nam	1981-1986
Employment (Nghề nghiệp)	*Position*	*Employer*	*Period*
	Specialist	Environmental Protection Council in Hochiminh City	1986-1992
	Specialist		1992-1998
	Deputy Head of EMD	Environmental Committee in Hochiminh City (ENCO)	1998-2003
	Deputy Head of EMD		2003-2004
	Deputy Director of HEPA	Department of Science, Technology & Environment (DOSTE)	2004-2007
	Director of REFU		2007-2011

	Head of EMD Senior lecturer	Department of Natural Resources & Environment (DONRE) Hochiminh City Environmental Protection Agency (HEPA) HoChiMinh City Waste Recycling Fund (REFU) Faculty of Environment and Natural Resources – HCMUT Faculty of Environment and Natural Resources - HCMUT	2011-2017 2018 – up to now
Research and development projects over the last 5 years **(Thành tích dự án và nghiên cứu trong 5 năm gần)**	*Name of project or research focus (Tên dự án, đề tài):* . Current status of using, sorting and collecting disposable items (disposal tableware) at fast food restaurants in HCMC (Hiện trạng sử dụng, phân loại và thu gom các vật dụng một lần tại nhà hàng ăn nhanh ở TP.HCM) (HCMUT-2016) . Proposing action programs towards sustainable consumption goals in HCMC by 2025 (Đề xuất các chương trình hành động hướng đến mục tiêu tiêu dùng bền vững tại TP.HCM đến năm 2025) (HCMC-DOST-2015)		

Industry collaborations over the last 5 years **(Hợp tác với doanh nghiệp)**	
Patents and proprietary rights **(Sở hữu trí tuệ)**	*Title* *Role* *Year*
Important publications over the last 5 years **(Bài báo nổi bật trong 5 năm gần)**	. Do Thi Kim Chi, **Le Van Khoa**, 2017. Hiện trạng và tiềm năng tái chế chất thải ngàn thức ăn nhanh tại TP.HCM. Journal of science – Hanoi University of Education, Natural Sci. 2017, Vol. 62, No. 3, pp. 135-141. DOI: 10.18173/2354-1059.2017-0017. . **Le Van Khoa**, Pham Gia Tran, Evaluating premises for the development of a sustainable consumption society in Viet Nam , The 5th international symposium on Environmental Analytical Chemistry, 2017, Ho Chi Minh - Việt Nam . Do Thi Kim Chi, **Le Van Khoa**, Sunil Herat, Component of single use items in solid waste of fast food restaurants: A case study in Ho Chi Minh city (Vietnam), The 5th international symposium on Environmental Analytical Chemistry, 2017, Ho Chi Minh - Việt Nam . Do Thi Kim Chi, **Le Van Khoa**, Sunil Herat, Adverse impact of food packaging and disposal tableware in fast food industry on human and the environment: a mini-review, The international conference on Agriculture and Sustainable Environment, 2016, Ho Chi Minh - Việt Nam

Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	*Organisation*		*Period*
	Science & Technology Development Journal - Engineering and Technology	*Role* *Reviewer*	*2021*
	Science & Technology Development Journal - Science of The Earth & Environment	*Reviewer*	*2016- up to now*
	Science & Technology Development Journal – Natural Sciences	*Reviewer*	*2015- up to now*
	Book: Chuyên ngành Kỹ thuật Môi trường (Nguyên bản: Fachwissen Umwelttechnik) (ISBN: 978-604-77-733)	*Compilation*	*2020*

Staff Handbook - Ngo Thi Ngoc Lan Thao

Name (Họ và Tên)	*Ngo Thi Ngoc Lan Thao*		
Post (Ví trí)	*Lecturer in Environmental Management and Technology, Environmental engineering*		
Academic career (Quá trình đào tạo)	*PhD. in Environmental Engineering*	*National Central University, Taiwan*	*2020*
	Bachelor of Environmental Science	*Ho Chi Minh City University of Science (HCMUS), VNU-HCM*	*2014*
Employment (Nghề nghiệp)	*Lecturer*	*HCMUT*	*2021 - now*
	Environmental Engineer	*Robert Bosch Engineering and Business Solutions Vietnam*	*2014-2015*
Research and development projects over the last 5 years (Thành tích dự án và nghiên cứu trong năm gần)	*The sampling and analysis of municipal solid waste in Taiwan, 2016-2017, Ministry of Science and Technology (MOST, Taiwan).* *Desulfurization mechanism study on syngas cleaning in biomass gasification, 2017-2018, Industrial Technology Research Institute, Green Energy and Environment Research Laboratories, New Energy Technology Division, Hsin-Chu, Taiwan.* *Replace prepared Ni-catalyst for hot gas tar removal and syngas yield enhancement in rice straw gasification, 2018-2019, Industrial Technology Research Institute, Green Energy and Environment Research Laboratories, New Energy Technology Division, Hsin-Chu, Taiwan.*		
Industry collaborations over the last 5 years (Hợp tác với doanh nghiệp)	*Project title (tên dự án)* *Partners (đối tác)*		
Patents and	*Title*		*Year*

proprietary rights **(Sở hữu trí tuệ)**	
Important publications over the last 5 years **(Bài Báo nổi bật trong 5 năm gần)**	*Selected recent publications from a total of approx.: 06 publications.* *Ngo, T.N.L.T., Chiang, K.Y., Wan, H.P., Hung, W.C., Liu, C.F., 2019. Enhanced trace pollutants removal efficiency and hydrogen production in rice straw gasification using hot gas cleaning system. Int. J. Hydrog. Energy 44(6): 3363-3372.* *Cheng, S.Y., Ngo, T.N.LT., Chiang, K.Y., 2020. Hydrogen gas yield and trace pollutant emission evaluation in automotive shredder residue (ASR) gasification using prepared oyster shell catalyst. Int. J. Hydrog. Energy 45(42):22232-22245* *Ngo, T.N.L.T., Chiang, K.Y. 2020. The migration, transformation and control of trace metals during the gasification of rice straw. Chemosphere, 260;127540* *Ngo, T.N.L.T., Chiang, K.Y., Liu, C.F., Wan, H.P., Hung, W.C., 2021. Hydrogen production enhancement using hot gas cleaning system combined with prepared Ni-based catalyst in biomass gasification. International Journal of Hydrogen Energy 46(20):11269-83.* *Chen, Y.H., Ngo, T.N.L.T., Chiang, K.Y., 2021 Enhanced hydrogen production in co-gasification of sewage sludge and industrial wastewater sludge by a pilot-scale fluidized bed gasifier. International Journal of Hydrogen Energy 46(27):14083-95.* *Ngo, T.N.L.T., Chiang, K.Y., 2021. Co-thermal degradation characteristics of rice straw and sewage sludge. Sustainable Environment Research 31(1):23.*
Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	*Organisation Role Period* *Membership without a specific role need not be mentioned*

Staff Handbook- Nguyen Phuoc Dan

Name	**NGUYỄN PHƯỚC DÂN**		
Post	**Joined training activity for the following academic institutions:** Ho Chi Minh City University of Technology – VNU-HCM Institute for Environment and Natural Resources – VNU-HCM **Teaching courses:** Chemistry for environmental engineering and science (for English and Vietnamese undergraduate programs of EE) Wastewater treatment engineering (English and Vietnamese undergraduate programs of EE) Water and wastewater treatment tecnology (English and Vietnamese undergraduate programs of ETM) Waste organic recycling and management (Master course of HCMUT) Water reuse and reclamation (Master course of HCMUT) Municipal and industrial water treatment design (Master course of IER-VNU) Operation of water treatment plant (Master course of IER-VNU)		
Academic career	**Initial academic appointment**	**Institution**	**Year**
	DoctoraL degree (Environmental Engineering)	Asian Institute of Technology (AIT), Bangkok, Thailand	2002
	Master's degree (Environmental Engineering)	Asian Institute of Technology (AIT), Bangkok, Thailand	1993
	Diploma degree	Ho Chi Minh City University of technology, Vietnam	1986

	(environmental Engineering)			
Employment	**Position**	**Employer**		**Period**
	Professor from Asian Center for Water Research-HCMUT	Ho Chi Minh City University of Technology (HCMUT), Vietnam		Sep 2018 to now
	Dean of Faculty of Environment and Natural Resources – HCMUT	Ho Chi Minh City University of Technology (HCMUT), Vietnam		May 2007 to Sep 2018
	Vice Dean of Faculty of Environment-HCMUT	Ho Chi Minh City University of Technology (HCMUT), Vietnam		2003 to May 2007
	Lecturer and Researcher	Institute of Environment and Resources (CEFINEA) – National University – HCM City, Vietnam		April 2002 to August 2003
	Lecturer and Researcher	Institute of Environment and Resources (CEFINEA) – National University – HCM City, Vietnam		1993 – 1999
Research and	**Name of project or**	**Partners, if**	**Amount**	**Period and any**

development projects over the last 5 years	research focus	applicable	of financing (million VND)	other information
	Application of partial nitritation coupled with anammox process for old municipal old landfill leachate	VNU-HCM	1200	36 months (2016-2019)
	Application of partial nitritation coupled with anammox for old municipal old landfill leachate	VNU-HCM		2016-2017
	Study on mitigation of DBPs for Tan Hiep water treatment plant	Ho Chi Minh City Department of Science and Technology	604	19 months (12/2014-7/2016)
	Application of two-stage co-digestion for urban biodegradable organic waste and sewage to generate bioenergy from biogas and recover organic carbon and nutrients.	NAFOSTED (National Foundation for Science and Technology Development)	800	2019-2022
	Application of CANON process, single sludge process, for nitrogen removal from high nitrogen-strength wastewater to reach the	VNU-HCM	200	2018-2019

	limit TN of the effluent quality standards Assessment of microplastic pollution in the surface runoff and ambient air of the municipial solid landfill Phuoc Hiep, HCMC	HCMUT	100	2018-2019
Industry collaborations over the last 5 years	Project title International Atomic Energy Agency (IAEA-Austria): Groundwater contributions to the Sai Gon River and implications for the degradation of drinking water supplies for Ho Chi Minh City, Vietnam. HITACHI ZOSEN Company (Japan): Pilot study on a two-stage anaerobic digestion system for bio-solids from the municipal solid waste generated from HCMC, KRAFT PAPER COMPANY (Thailand): Training for wastewater treatment plant operation			
Patents and proprietary rights	Patent (during evaluation process): Enrichment of anammox bacteria based on anaerobic granules Year: 2019			
Important publications over the last 5 years **(Bài Báo nổi bật trong 5 năm gần)**	Selected recent publications from a total of approx. (give total number): 7 **Author(s)** / **Title** / **Public information** **Phuoc-Dan Nguyen**, Nguyen-Sang Truong Tran, Thuy-Truc Nguyen, Bao-Trong Dang, Minh-Tam Thi Le, Xuan-Thanh Bui, / Long-term operation of the pilot scale two-stage anaerobic digestion of municipal biowaste in Ho Chi Minh City / Science of the Total Environment (ISSN: 0048-9697) Volume 766, 20 April 2021, 142562			

	Fumitoshi Mukai, Hidemasa Kobayashi, Huu Hao Ngo		
	Dan Nguyen Phuoc, The Nhat Phan, Sang Truong Tran Nguyen, Bui Xuan Thanh, Thanh Le Quang Do, Thi Nhanh Van Truong, Tuan Nguyen Van, Toan Le Hoang, Kenji Furukawa	Nitrogen removal from old landfill leachate using a pilot two-sludge system consisting partial nitrification sequencing batch reactor followed by Anammox internal circulation column	The Fourth Internal Anammox symposium (INNAS 2019), Kyoto University, p 137-142
	Phuoc Dan Nguyen, Thanh Do Quang Le, Nhat Huy Nguyen, Kim ThachTran, Minh TriNguyen, Khanh AnHuynh	Reducing disinfection byproduct precursors and chlorine consuming substances by a special integration of biofiltration and ozonation: A pilot study	Journal of Water Process Engineering (ISSN: 2214-7144) Volume 37, October 2020, 101419
	Viet Tuan Tran**,** **Phuoc-Dan Nguyen** & Emilie Strady	Bioaccumulation of trace elements in the hard clam, Meretrix lyrata, reared downstream of a developing megacity, the Saigon-Dongnai River Estuary, Vietnam	Environmental Monitoring Assessment (ISSN: 0167-6369) Article number: 566 (2020)
	Tuong Vy Huynh**,** **Phuoc Dan Nguyen**, The Nhat Phan, Duy Ha Luong, Thi Thanh Van Truong, Khanh An Huynh, Kenji Furukawa	Application of CANON process for nitrogen removal from anaerobically pretreated husbandry wastewater	International Biodeterioration & Biodegradation (ISSN: 0964-8305) Volume 136, January 2019, Pages 15-23

	Nguyen Nhu Hien, Doan Van Tuan, Phan The Nhat, Truong Thi Thanh Van, Nguyen Van Tam, V.O. Nguyen Xuan Que, **Nguyen Phuoc Dan**	Application of Oxygen Limited Autotrophic Nitritation/Denitrification (OLAND) for anaerobic latex processing wastewater treatment	International Biodeterioration & Biodegradation (ISSN: 0964-8305) Volume 124, October 2017, Pages 45-55
	Tam Le Thi Minh, Dan Nguyen Phuoc, Tuc Dinh Quoc, Huu Hao Ngo, Chi Do Hong Lan	Presence of e-EDCs in surface water and effluents of pollution sources in Sai Gon and Dong Nai river basin	Sustainable Environment Research (ISSN: 2468-2039) Volume 26, Issue 1, January 2016, Pages 20-27
Activities in specialist bodies over the last 5 years	Organisation Role Period Membership of Water and Environment Association of HCMC, Member of Scientic Committee for Environment and Energy field of VNU-HCM Member of Project Evaluation Committee of Ministry of Natural Resources and Environment		

Staff Handbook: Vo Le Phu

Name	*Vo Le Phu*		
Post	*Dean, Lecturer (responsible for courses: Water Resources Management, Coastal Zone Management, Climate Change, Cleaner Production)*		
Academic career	*Lecturer* Habilitation *[German post-doctoral qualification] (subject)* *Doctorate (Water Resources and Policy Management)* *Bachelor's degree in Science (Biology)*	*HCMUT-VNU HCM* *Institution* *Adelaide University, Australia* *Hue University, Vietnam*	*2000* *Year* *Year* *2008*
Employment	*Dean*	*Ho Chi Minh City University of Technology*	*Sep. 2018 – Present*
Research and development projects over the last 5 years	*Source and Mechanism of Arsenic Contamination in Groundwater and Sediment in An Giang province, the Mekong Delta of Vietnam* *Period: 2014 – 2019* *Partners:* École Polytechnique Fédérale de Lausanne (EPFL, Lausanne, Switzerland); Institut des Sciences de la Terre, University of Grenoble (France) under the auspice of RESCIF/CARE. *Amount of funding: 168,00 Swiss franc* *Coastal Erosion and Hazard Management in Western Taiwan and Central Coastline of Vietnam* *Period: 2017 – 2019* *Partners: National Taiwan Normal University (NTNU)* *Design and operational evaluation of a brackish water reverse osmosis desalination system powered by photovoltaic system for school's drinking water in coastal areas – A case study in Ba Tri District, Ben Tre Province*. *Period*: 2020 – 2021 (Project ID: B2020-20-08/HĐ-KHCN)		

	Partner: Vietnam National Univeristy Ho Chi Minh City *Amount of funding: 33,478 USD* ***EN**abling **H**umanitarian **A**ttributes for **N**urturing **C**ommunity-based **E**ngineering (**ENHANCE**)* *Period: 2019 – 2022* *Partners:* the Erasmus+ Project with Warwick University (UK), University of West Attica (Greece) *Amount of funding: €998,705* ***GREEN** waste management new ed**U**cation **S**ystem for recycling and environmental protection in asia (**GREENUS**)*. *Period: 2021 – 2023* *Partners:* the Erasmus+ Project with Sapienza University of Rome (Italy), Hellenic Mediterranean University (Greek), and Uniwersytet Jagiellonski W Krakowie (Poland). *Amount of funding: €128.294* *. Basic investigation of marine environmental and geological settings from Binh Dinh to Kien Giang* *Period: 2021 – 2023* *Partners: Ministry of Natural Resources and Environment (MONRE)*
Industry collaborations over the last 5 years	*Project title* *Partners*
Patents and proprietary rights	*Title* *Year*

Important publications over the last 5 years	***Selected recent publications from a total of 93 peer-reviewed papers:*** 1. Dang An Tran, Maki Tsujimura, Nam Thang Ha, Van Tam Nguyen, Doan Van Binh, Thanh Duc Dang, Quang-Van Doan, Dieu Tien Bui, Trieu Anh Ngoc, **Le Vo Phu**, Pham Thi Bich Thuc, Tien Dat Pham (2021). Evaluating the predictive power of different machine learning algorithms for groundwater salinity prediction of multi-layer coastal aquifers in the Mekong Delta, Vietnam. *Ecological Indicators*, **127**(2021), 107790, https://doi.org/10.1016/j.ecolind.2021.107790 2. Pham Hung, Trung Van Le, **Phu Le Vo**, Hung Cong Duong and Md. Mostafizur Rahman (2021). Vulnerability assessment of water resources using GIS, remote sensing and SWAT model – a case study: the upper part of Dong Nai river basin, Vietnam. *International Journal of River Basin Management*, DOI: 10.1080/15715124.2021.1901729 3. Lin, T.Y., Van Onselen, V.M., **Vo, L.P.** (2021). Coastal erosion in Vietnam: Case studies and implication for integrated coastal zone management in the Vietnamese south-central coastline. *IOP Conf. Ser.: Earth Environ. Sci.*, **652**(2021), doi:10.1088/1755-1315/652/1/012009. 4. Nguyen, A.H., Nguyen, M.P.L., Pham, N.T.T., Tat, V.M.H., Luu, L.K., **Vo, P.L.** (2021). Health risk assessment of groundwater consumption for drinking and domestic purposes in Xuyen Moc District, Ba Ria – Vung Tau Province, Vietnam. *IOP Conf. Ser.: Earth Environ. Sci.*, **652**(2021), doi:10.1088/1755-1315/652/1/012018. 5. Quang-Khai Ha, **Phu Le Vo**, Chu-Nam Phan, Van-Hung Pham, Viet-Ky Nguyen (2021). Identification of freshwater - saltwater interface in coastal areas using combination of geophysical and geochemical methods: A case study in Mekong Delta, Vietnam. *IOP Conf. Ser.: Earth Environ. Sci.*, **652**(2021), doi:10.1088/1755-1315/652/1/012006. 6. Nguyen, A.H., Pham, N.T.T., Tat, V.M.H., Truong, H.T., **Vo, P.L.** (2021). Application of Entropy weight in groundwater quality index (EWQI) and GIS for groundwater quality zoning in the Southeastern Coastal region, Vietnam. *IOP Conf. Ser.: Earth Environ. Sci.*, **652**(2021), doi:10.1088/1755-1315/652/1/012005. 7. Vo Nguyen Xuan Que, Doan Van Tuan, Nguyen Nhat Huy, **Vo Le Phu**

(2021). Design and performance of small-scale reverse osmosis desalination for brackish water powered by photovoltaic units: a review. *IOP Conf. Ser.: Earth Environ. Sci.*, **652**(2021), doi:10.1088/1755-1315/652/1/012024.

3. Tran Dang An, Maki Tsujimura, **Vo Le Phu**, Van Tam Nguyen, Dwight Kambuku, Thanh Duc Dang (2020). Hydrogeochemical Characteristics of a Multi-layered Coastal Aquifer System in the Mekong Delta, Vietnam. *Environmental Geochemistry and Health*, **42**: 661 – 680, https://doi.org/10.1007/s10653-019-00400-9.

). Maria P. Asta, Yuheng Wang, Manon Frutschi, Karen Viacava, Luca Loreggian, Pierre Le Pape, **Phu Le Vo**, Ana Maria Fernandez, Guillaume Morin and Rizlan Bernier-Latmani (2019). Microbially-Mediated Release of As from Mekong Delta Peat Sediments. *Environ. Sci. Technol.*, **53**(17), 10208 -10217.

). Dang An Tran, Maki Tsujimura, **Le Phu Vo**, Van Tam Nguyen, Le Duy Nguyen and Thanh Duc Dang (2019). Stable Isotopes Characteristics of Water Resources in the Coastal Area of the Vietnamese Mekong Delta. *Isotopes in Environmental and Health Studies*, **55**(6): 566-587, https://doi.org/10.1080/10256016.2019.1673746.

. Tran Thi Nhung, **Vo Le Phu**, Vu Van Nghi, Ho Quoc Bang (2019). Salt intrusion adaptation measures for sustainable agricultural development under climate change effects: A case of Ca Mau Peninsula, Vietnam. *Climate Risk Management*, **23**(2019): 88 – 100, https://doi.org/10.1016/j.crm.2018.12.002.

. Wang, Y., Le Pape, P., Morin, G., Asta, M.P., King, G., Bartova, B., Suvorova, E., Frutschi, M., Ikogou, M., Vu Hoai Cong Pham, **Phu Le Vo**, Herman, F., Charlet, L. and Rizlan Bernier-Latmani (2018). Arsenic Speciation in Mekong Delta Sediments Depends on Their Depositional Environment. *Environ. Sci. Technol.*, **52**(6): 3431−3439. DOI: 10.1021/acs.est.7b05177

. Matthew C. Reid, Julien Maillard, Alexandre Bagnoud, Leia Falquet, **Phu Le Vo** and Rizlan Bernier-Latmani (2017). Arsenic Methylation Dynamics in a Rice Paddy Soil Anaerobic Enrichment Culture. *Environ. Sci. Technol.*, **51**(18): 10546−10554. DOI: 10.1021/acs.est.7b02970

	4. Danet Hak, Kazuo Nadaoka, **Vo Le Phu** (2016). Socioeconomic Conditions and Perceptions of Environmental Risks in the Mekong Delta, Vietnam. *Coastal Management*, **44**(6): 1-21. DOI: http://dx.doi.org/10.1080/08920753.2016.1233796. ***International book chapters:*** Le Meur Mathieu, **Vo Le Phu** and Gratiot Nicolas (2021). What is the future of the lower Mekong basin struggling against human activities? A review. In Manning, A.J. (Ed.). *River Deltas – Recent Advances*. Intech Open, UK (ISBN: 978-1-83880-165-6), DOI: http://dx.doi.org/10.5772/intechopen.95010 Tran Dang An, Maki Tsujimura, **Vo Le Phu**, Doan Thu Ha and Nguyen Van Hai (2018). Isotopic and Hydrogeochemical Signatures in Evaluating Groundwater Quality in the Coastal Area of the Mekong Delta, Vietnam. Springer International Publishing AG 2018		
Activities in specialist bodies over the last 5 years	*The International Conference on Environment, Resources and Earth Sciences 2021 (ICERES 2021)* *The International Conference on Environment, Resources and Earth Sciences 2020 (ICERES 2020)* The 7th Joint Symposium on Chemistry, Environment, Natural Sciences and Technologies (JSCENS-7) The *6th International Symposium on GeoInformatics for Spatial-Infrastructure Development in Earth and Allied Sciences (GIS-*	*Chairman* *Chairman* *Member of LOC* *Member of Editorial Board*	*29 October 2021* *1 – 5 December 2020* *16 – 20 October 2012*

	IDEAS 2012) *Science and Technology Development Journal (STDJ) – Earth and Environmental Sciences, VNU – HCMC* International Water Resources Association (IWRA) Great Mekong Sub-region Academic Research Network (GSARN) Vietnam Association of Conservation for Nature and Environment (VACNE)	*Member* *Member* *Member*	*2017 – present* *2004 – 2012* *2012 – 2017* *2017 – present*

Staff Handbook -Vo Nguyen Xuan Que

Name (Họ và Tên)	*Dr. Vo Nguyen Xuan Que*		
Post (Ví trí)	*Head of Environmental Analysis Lab*		
Academic career (Quá trình đào tạo)	*Initial academic appointment* Ph.D *(Environmental Engineering)* *M.Sc (Environmental Engineering)* *B.Eng (Chemical Engineering)*	*Institution* *Yonsei University, Korea* *Ewha University, Korea* *Ho Chi Minh City University of Technology*	*Year* *2014* *2008* *2002*
Employment (Nghề nghiệp)	*Position* *Lecturer*	*Employer* *Faculty of Environment & Nature Resources. Ho Chi Minh City University of Technology (HCMUT)*	*Period* *2017-present*
Research and development projects over the last 5 years (Thành tích dự án và nghiên cứu trong năm gần)	*1/ Design and performance evaluation of RO system for drinking water in BaTri, Ben Tre (2020-2021)* *2/ Ammonia removal ammonia removal from wastewater by constructed wetland integrating with microbial fuel cell (2020-2021)* *3/ Photocatalytic disinfection of Coliforms and degradation of natural organic matters in river water using titanate nanotubes (2020-2021)* *4/ Carbon stock in mangrove forest soils (2018-2019)*		
Industry collaborations over the last 5 years (Hợp tác với doanh nghiệp)	*Project (tên dự án):* *Nước sạch học đường tại huyện Ba Tri, tỉnh Bến Tre (2019)* *Partners (đối tác):* *Hội bảo trợ bệnh nhân nghèo TP.HCM*		
Patents and	*Title*		*Year*

proprietary rights **(Sở hữu trí tuệ)**	
Important publications over the last 5 years **(Bài Báo nổi bật trong 5 năm gần)**	*1/ Vo Nguyen Xuan Que, Tran Tien Khoi, Nguyen Thi Thuy*, Ta Thi Minh Dung, Dao Thi Thanh Binh, and Nguyen Nhat Huy*, Factors Determining the Removal Efficiency of Procion MX in Waters Using Titanate Nanotubes Catalyzed by UV Irradiation, Journal of Nanotechnology, 2021, ID 8870453, 2021* *2/ Vo Nguyen Xuan Que, Doan Van Tuan, Nguyen Nhat Huy, Vo Le Phu, Design and performance of small-scale reverse osmosis desalination for brackish water powered by photovoltaic units: a review , IOP Conference Series: Earth and Environmental Science, 652, ID 012024, 2021* *3/ Bui Van Khanh, Tran Thi My Duyen, Lam Pham Thanh Hien*, Vo Nguyen Xuan Que, Nguyen Nhat Huy*, Analysis of water quality in Saigon River water and its treatment by traditional coagulation – flocculation,, IOP Conference Series: Earth and Environmental Science (EES), 652, ID 012013, 2021* *4/ Nhat Huy Nguyen, Khoi Tran Tien, Thang Nguyen Hung, Que Vo Nguyen Xuan, Thuong Ho Thi, Phuong Le Thi & Thuy Nguyen Thi, Photocatalytic disinfection of Coliforms and degradation of natural organic matters in river water using titanate nanotubes, Environmental Technology, 2021, xx-xx, 2021* *5/ Nguyen Nhu Hien, Doan Van Tuan, Phan The Nhat, ..., Vo Nguyen Xuan Que, Nguyen Phuoc Dan , Application of oxygen limited autotrophic nitritation/denitrification (OLAND) for anaerobic latex processing wastewater treatment, International Biodeterioration & Biodegradation, 124, 45-55, 2017*
Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	*Organisation* *Ecological Engineering* *Journal of Environmental Management* *Role* *Reviewer* *Reviewer* *Period* *2018-present* *2017-presnt*

Staff Handbook - Vo Thanh Hang

Name (Họ và Tên)	Vo Thanh Hang		
Post (Ví trí)	*Lecturer (responsible for courses: Water Resources Management)*		
Academic career (Quá trình đào tạo)	*Lecturer*	*HCMUT-VNU HCM*	*2012*
	Habilitation *[German post- doctoral qualification]*	*NA*	*NA*
	Doctorate (Environmental engineering)	*Kyungpook National University (Korea)*	*2012*
	Master's degree (Environmental science)	*University of Science-VNU HCM*	*2006*
	Bachelor's degree (Environmental management)	*HCMUT-VNU HCM*	*2003*
Employment (Nghề nghiệp)	*Lecturer*	*Hochiminh City University of Technology*	*October. 2012- present*

Research and development projects over the last 5 years (Thành tích dự án và nghiên cứu trong năm gần)	1. Application of SewagePlus technology for wastewater treatment in Vietnam" between Antwerp Researcher on "Applications of Advanced Oxidation Processes (AOPs) for wastewater treatment after biological treatment" by Ho Chi Minh City University of Technology (HCMUT). Project VLIR – UOS (2014- 2016). 2. Vulnerability and Adaptation to Climate Change for Water Resources Management in Coastal Cities of Southeast Asia. International Climate Initiative Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), Asian Technology University (AIT) and Ho Chi Minh City University of Technology (2012-2015). Application of membrane bioreactor coupling with advnaced oxidation process treating anti-biotics in hospital. NAFOSTED - Ministry of Science and Technology (2015-2017). Project Undergraduate Research Initiative (URI). USAID & Dow Vietnam STEM Program, Arizona State University, USA (2019-2021). Development of membrane bioreactor coupling with salt tolerant microorganism treating saline wastewater (VNU-HCM; 2020 – 2021).
	Engineering projects in community service (EPIC4). USAID & Dow Vietnam STEM Program, Arizona State University, USA (2020-2021). Utilization of alum sludge for heterogenous Fenton process in textile. HCMUT (2020-2021). Development of membrane photobioreactor using micro-algae and micro-organisms for wastewater treatment. HCMUT (2021-2026). Green waste management new education system for recycling and environmental protection in Asia. ERAMUS project (2020 - 2024). Engineering projects in community service (EPIC4). USAID & Dow Vietnam STEM Program, Arizona State University, USA (2021-2022).

Industry collaborations over the last 5 years **(Hợp tác với doanh nghiệp)**	Seoul Initiative Network on Green Growth (SINGG). Water, Engineering and Development Centre (WEDEC) at Loughborough University, England. Korea National Institute of Environmental Human Resources Development (EHRD)_ Korea. Korea Environmental Industry and Technology Institute. The Vietnam – Korea Expert & Intellectual Association – VKEIA. Journal of Environmental Chemical Engineering Building University-Industry Learning and Development through Innovation and Technology. USAID & Dow Vietnam STEM Program, Arizona State University, USA.
Patents and proprietary rights (Sở hữu trí tuệ)	*Title* — *Year* *Extract form Crotalaria Assamica Benth see* — *2020 (on proceeding)*

Important publications over the last 5 years (Bài Báo nổi bật trong 5 năm gần)	Nguyen Phuoc Dan, Vo Thanh Hang, Dinh Quoc Tuc, Natasha Hazarika and Vilas Nitivattanano. Vulnerability and adaptation to climate change of Ben Tre city,Vietnam. Regional Forum on Climate Change (RFCC). 2015. Son Minh Tran, Hang Thanh Vo, Lam Uy Tran Huynh, Kiet Quoc Tran, Dan Cong Bach, Linh Hoang Nguyen. Lab-scale study on co-digestion of kitchen waste, sludge and sewage. Science and Technology Development Journal (STDJ), Vietnam National University – Ho Chi Minh City (VNU-HCM). 2016. Hang Thanh Vo, Mai Thanh Thuy, Bui Thi Kieu Oanh, Nguyen Phuoc Dan, Dinh Quoc Tuc, Natasha Hazarika and Vilas Nitivattanano. Assessing the impact of climate change to water supply in Hoi An City, Quang Nam Province, Vietnam. Development for Sustainable Global Environment and Water Resources. The 7th WRE-THAI, 4th EIT-WRE and 9th AUN/SEED-Net. 2017. Vo Thanh Hang, Pham Thi Kim Tuyen. The current situation of pesticide waste management in agriculture in Long An Province, Vietnam. Science and Technology Development Journal (STDJ), Vietnam National University – Ho Chi Minh City (VNU-HCM). 2019. Vo Thanh Hang, Nguyen Thi Phuong Vy. Developing solar energy in household scale at Tan Binh District, Ho Chi Minh City, Vietnam. IOP Conference Series: Earth and Environmental Science. 2021.

Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	*Organisation*		Period
	Seoul Initiative Network on Green Growth (SINGG).		2007 until now
	Korea National Institute of Environmental Human Resources Development (EHRD)_ Korea	*Role Member*	2009 until now
		Member	
	Korea National Institute of Environmental Human Resources Development (EHRD)_ Korea.	*Member*	2009 until now
		Member	
	Korea Environmental Industry and Technology Institute.	*Member*	2009 until now
	Water, Engineering and Development Centre (WEDEC) at Loughborough University, England	*Commitee member*	2016 until now
		Coordinator/ Mentor of URI, EPIC project	
	The Vietnam – Korea Expert & Intellectual Association – VKEIA.	*President*	2020 until now
	Building University- Industry Learning and Development through		2019 until now

	Innovation and Technology. USAID & Dow Vietnam STEM Program, Arizona State University, USA. 8. Bach Khoa Green Innovation Club, HCMUT	2020 until now

Staff Handbook - Bui Ta Long

Name (Họ và Tên)	*Bui Ta Long*		
Post (Ví trí)	*Head of Laboratory for Environmental Modelling*		
Academic career (Quá trình đào tạo)	*Initial academic appointment: Pure mathematics*	*Institution: Pure mathematics*	*Year: 1980-1985*
	Doctorate (subject) (subject): Functional analysis	*Institution: Lomonosov Moscow State University, USSR*	*Year: 1986-1989*
	Habilitation *[Russian doctoral qualification]: Modelling and Physical experiment*	*Institution: Institute of Radioengineering and Electronics (IRE), Russian Academy of Sciences*	*Year: 1997-198*
Employment (Nghề nghiệp)	*Position: Institute of Applied Mechanics*	*Employer: Researcher*	*Period: 1989 – 1991*
	Position: Institute of Applied Mechanics	*Employer: Head of Department*	*Period: 1992 – 1997*
	Position: Institute of Applied Mechanics	*Employer: Leader*	*Period: 1998 – 2002*
	Position: Institute of Applied Mechanics	*Employer: Main Researcher*	*Period: 2002 - 2005*
	Position: Institute of Environment and Natural Resources	*Employer: Head of Department*	*Period: 2006 – 2013*
	Position: Ho Chi Minh City University of	*Employer: Lecturer*	*Period: 2013 to*

	Technology		*present*
	Position: Laboratory for Environmental Modelling - Faculty of environment and natural resources - Ho Chi Minh City University of Technology	*Employer: Head of Department*	*Period: 2014 to present*
Research and development projects over the last 5 years **(Thành tích dự án và nghiên cứu trong năm gần)**	*Name of project or research focus (Tên dự án, đề tài): Developing a scientific and practical basis applying mathematical models combination* *with GIS tools and remote sensing (RS) approaches to simulate air pollution in specific conditions of Vietnam – A case study in Ho Chi Minh city and the surrounding areas.* *Period and any other information (thời gian): 2017-2020* *Partners, if applicable (đối tác): Ministry of Natural Resources and Environment* *Amount of financing (kinh phí đề tài):*		
	Name of project or research focus (Tên dự án, đề tài) : Building a method for estimating emissions from the municipal solid waste landfills – To take the Southern Key Economic Region as a case study *Period and any other information (thời gian) 2019 - 2020* *Partners, if applicable (đối tác): Viet Nam National University Ho Chi Minh city (VNU – HCM)* *Amount of financing (kinh phí đề tài)*		
Industry collaborations over the last 5 years **(Hợp tác với doanh**	*Project title (tên dự án)* *Partners (đối tác)*		

nghiệp)	
Patents and proprietary rights **(Sở hữu trí tuệ)**	*Title: Environmental Information – Model system for Air Pollution Simulation* *Year: 2020*
Important publications over the last 5 years **(Bài Báo nổi bật trong 5 năm gần)**	*Selected recent publications from a total of approx.* *(give total number):* *Author(s): Bui Ta Long, Nguyen Hoang Phong, Nguyen Chau My Duyen* *1.Integrated model for methane emission and dispersion assessment from land fills : A case study of Ho Chi Minh City , Vietnam. Science of the Total Environment, Vol. 738, p. 139865, ISSN:0048 – 9697, ISI/Scopus, SCIE, Q1, IF: 7.963, CiteScore: 10.5, H-INDEX: 244* *2.Methane emission quantification from municipal waste landfills : models and computer software — a case study of Long An. Environmental Science and Pollution Research, no. 7, pp. 1–23, ISSN: 1614-7499, ISI/Scopus, SCIE, Q1, IF: 4.223, CiteScore: 5.50, H-Index: 113.* *3.Modelling bank erosion dependence on natural and anthropogenic factors — case study of Ganh Hao estuary , Bac Lieu - Ca Mau. Environmental Technology & Innovation, vol. 19, p. 100975, ISSN:2352 – 1864, ISI/Scopus, SCIE, Q1, IF: 5.263, CiteScore: 4.5, H-Index:28.* *4.Linking air quality, health, and economic effect models for use in air pollution epidemiology studies with uncertain factors. Atmospheric pollution research, vol. 12, no. 7, p. 101118, ISSN: 1309 – 1042, ISI/Scopus, SCIE, Q1, IF: 4.352, CiteScore: 5.8, H-Index: 45* *5.Inverse algorithm for Streeter–Phelps equation in water pollution control problem. Mathematics and Computers in Simulation, vol. 171, Pp. 119-126. ISSN: 0378-4754, ISI/Scopus, SCIE, Q1, IF:*

	2.463, CiteScore: 4, H-Index: 77
	Author(s): Bui Ta Long, Nguyen Hoang Phong *Title: Integrated model for methane emission and dispersion assessment from landfills: A case study of Ho Chi Minh City, Vietnam* *Any other information* *Publisher, place of publication, date of publication or name of periodical, volume, issue, page numbers: Science of The Total Environment, 2020. ISSN: 0048-9697.*
	Author(s): Bui Ta Long *Title: Inverse algorithm for Streeter–Phelps equation in water pollution control problem* *Any other information* *Publisher, place of publication, date of publication or name of periodical, volume, issue, page numbers: Mathematics and Computers in Simulation, 2020. ISSN: 0378-4754.*
	Author(s): Bui Hong Nhat Linh, Bui Ta Long *Title: Modelling bank erosion dependence on natural and anthropogenic factors — case study of Ganh Hao estuary, Bac Lieu - Ca Mau, Viet Nam* *Any other information* *Publisher, place of publication, date of publication or name of periodical, volume, issue, page numbers: Environmental Technology & Innovation, 2020. ISSN: 2352-1864.*
	Author(s): Bui Ta Long, Nguyen Hoang Phong, Nguyen Chau My Duyen *Title: Model for assessing health damage from air pollution in quarrying area – Case study at Tan Uyen quarry, Ho Chi Minh megapolis, Vietnam* *Any other information*

	Publisher, place of publication, date of publication or name of periodical, volume, issue, page numbers: Heliyon, 2020. ISSN: 2405-8440.
Activities in specialist bodies over the last 5 years (Hoạt động cá nhân đặc trưng trong 5 năm gần)	*Organisation Role Period* *Membership without a specific role need not be mentioned*

Staff Handbook – Tran Doan Trang

Name	*Tran Doan Trang*		
Post	*Lecturer in Environmental Engineering*		
Academic career	*Master of Environmental Engineering*	*Ho Chi Minh City University of Technology (HCMUT), VNU-HCM*	*2019-2022*
	Bachelor of Environmental Engineering	*Ho Chi Minh City University of Technology (HCMUT), VNU-HCM*	*2014-2018*
Employment	*Lecturer*	*HCMUT*	*2020-now*
Research and development projects over the last 5 years	*Enhancement of H2S adsorption in biogas by utilization of industrial solid waste (VNU-HCM, 2022-2024, 120 million VND)* *Study on the removal of non/hard-biodegradable organic compounds in water by using magnetized photocatalyst (HCMUT-CARE, 2021-2022, 100 million VND)* *Biochar preparation, characterization, and its application on water treatment (VNU-HCM, 2021-2022, 80 million VND)*		
Industry collaborations over the last 5 years	*Project title* *Partners*		
Patents and proprietary rights	*Title*		*Year*
Important publications over the last 5 years	*Pham Van Hao, Phan Ngoc Minh, Phan Ngoc Hong, Nguyen Nhat Huy, Phung Thi Oanh, Nguyen Thanh Hai, Tran Doan Trang, Dang Van Thanh*, Nguyen Thi Khanh Van, Nguyen Van Dang*, Gram-scale synthesis of electrochemically oxygenated graphene nanosheets for removal of methylene blue from aqueous solution, Nanotechnology, 32(16), ID 16LT01, 2021.* *Nguyen Thi Le Lien, Nguyen Thi Cam Tien, Tran Doan Trang, Nguyen*		

	Thi Mai, Nguyen Manh Khai, Dang Van Thanh, Production of electrochemically functionalized graphene nanosheets for adsorption of levofloxacin antibiotic from aqueous solution, ICERES 2021 Conference, 2021, (Viet Nam).* *Pham Van Hao, Phan Ngoc Hong, Nguyen Nhat Huy, Dang Van Thanh*, Tran Doan Trang, Nguyen Van Truong*, Preparation of graphene nanoribbons using anodic plasma electroliation and its application for removal of methylene blue from aqueous solution, The 12th Scientific Conference of University of Science, Viet Nam National University Ho Chi Minh City (VNUHCM-US CONF 2020), 2020, Hồ Chí Minh(Việt Nam).* *Nguyen Nhat Huy, Thoi Duy Phat, Sam Hoang Tuan, Tran Doan Trang Vo Thi Thanh Thuy, Ammonia recovery from landfill leachate by air stripping and absorption in a close air recirculation system, The 12th Scientific Conference of University of Science, Viet Nam National University Ho Chi Minh City (VNUHCM-US CONF 2020), 2020, Hồ Chí Minh(Việt Nam).*
Activities in specialist bodies over the last 5 years	*Organisation Role Period* *Membership without a specific role need not be mentioned*

Staff Handbook – Vo Thi Thanh Thuy

Name	*Vo Thi Thanh Thuy*		
Post	*Lecturer in Environmental Engineering*		
Academic career	*Master of Environmental Engineering*	*Ho Chi Minh City University of Technology (HCMUT), VNU-HCM*	*2018-2020*
	Bachelor of Environmental Engineering	*Ho Chi Minh City University of Technology (HCMUT), VNU-HCM*	*2013-2018*
Employment	*Lecturer*	*HCMUT*	*2021-now*
Research and development projects over the last 5 years	*Enhancement of H2S adsorption in biogas by utilization of industrial solid waste (VNU-HCM, 2022-2024, 120 million VND)* *Study on the removal of non/hard-biodegradable organic compounds in water by using magnetized photocatalyst (HCMUT-CARE, 2021-2022, 100 million VND)* *Preparation of titanium dioxide nanotubes-based photocatalysts for removal of ambient formaldehyde and nitrogen dioxide in air (VNU-HCM, 2019-2021, 100 million VND)*		
Industry collaborations over the last 5 years	*Project title* *Partners*		
Patents and proprietary rights	*Title*		*Year*

Important publications over the last 5 years	*Nguyen Thi Thuy, Dang Thi May, Duong Ngoc Phuong Thao, Vo Thi Thanh Thuy, Dang Van Thanh, Nguyen Trung Thanh, Nguyen Nhat Huy*, Field study of visitors' behavior in incense burning and its induced air pollution assessment and treatment, Environmental Science and Pollution Research, online, 2022* *Lam Pham Thanh Hien, Le Nguyen Dang Khoa, Dang Van Thanh, Nguyen Thi Hieu, Tran Thi Phi Oanh, Vo Thi Thanh Thuy, Nguyen Nhat Huy*, Utilization of Alum Sludge from Water Treatment Plant as an Adsorbent for Hydrogen Sulfide Removal, SNRU Journal of Science and Technology, 13(3), 117-125, 2021* *Nguyen Thi Thuy, Tran Tien Khoi, Dang Thi Anh Thu, Vo Thi Thanh Thuy, Hoang Cong Anh Duy, Lam Pham Thanh Hien, Nguyen Nhat Huy*, Investigation and treatment of air pollution from incense burning in Vietnam, ASEAN Engineering Journal, 11(3), 13-30, 2021* *Thi Thanh Thuy Vo, Hong Son Nguyen, Thi Thu Tran, Pham Thanh Hien Lam, Thi Thuy Nguyen, Nhat Huy Nguyen*, Effects of environmental factors and synthesis conditions on the photocatalytic activity of titanate nanotubes for removal of gaseous formaldehyde, Research on Chemical Intermediates, 46(11), 4793–4809, 2020* *Nguyen Nhat Huy, Vo Thi Thanh Thuy, Nguyen Hung Thang, Nguyen Thi Thuy, Le Thi Quynh, Tran Tien Khoi, Dang Van Thanh*, Facile one-step synthesis of zinc oxide nanoparticles by ultrasonic - assisted precipitation method and its application for H2S adsorption in air, Journal of Physics and Chemistry of Solids, 132, 99-103, 2019*
Activities in specialist bodies over the last 5 years	*Organisation Role Period* *Membership without a specific role need not be mentioned*

Staff Handbook – Huynh Cong Hoai

Name	*Huynh Cong Hoai*		
Post	*Associate Professor*		
Academic career	*Doctorate (Fluid mechanics)*	*INPT (National Polytechnic of Toulouse*	*2001*
	Master (Coastal Hydraulics)	*AIT (Asian Institute Technology)*	*1992*
Employment	*lecturer*	*HCM City University of Technology*	*1978- present*
Research and development projects over the last 5 years	*Research focus: Riverine and Coastal Hydraulics* *Project:* *Study on erosion/accretion and measures to sustainably protest Hoi An beach from erosion (2016-2017)* *Study erosion process in Lower Mekong Delta Coastal Zone (LMDCZ) and the measure for protecting Go Cong and U Minh from erosion (2016-2018)*		
Industry collaborations over the last 5 years	*Project title* *Partners*		
Patents and proprietary rights	*Title*		*Year*

Important publications over the last 5 years	*Selected recent publications from a total of approx.* *(give total number):* *Author(s)* *Title* *Any other information* *Publisher, place of publication, date of publication or name of periodical, volume, issue, page numbers*
Activities in specialist bodies over the last 5 years	*Organisation Role Period* *Membership without a specific role need not be mentioned*

Staff Handbook – Nguyen Quang Truong

Name	*Dr. NGUYEN Quang Truong*		
Post	*Head of Water Resources Engineering and Management Department*		
Academic career	*Initial academic appointment*	*Institution*	*Year*
	Ph.D *(Hydraulic and Ocean Engineering)*	*National Cheng Kung University, Taiwan*	*2011*
	M.Sc (Water Resources Engineering)	*Hochiminh city University of Technology, Vietnam*	*2005*
	B.Eng (Civil Engineering)	*Hochiminh city University of Technology, Vietnam*	*2002*
Employment	*Position*	*Employer*	*Period*
	Lecturer	*Faculty of Civil Engineering. Ho Chi Minh City University of Technology (HCMUT)*	*2002-2011*
	Vice Head	*Faculty of Civil Engineering, Department of Water Resources Engineering & Management. Ho Chi Minh City University of Technology (HCMUT)*	*2012-2017*
	Vice Head	*Faculty of Civil Engineering, Department of Water Resources Engineering & Management. Ho Chi Minh City University of Technology (HCMUT)*	

	2017-present
Research and development projects over the last 5 years	*1/ One Study on the optimization of leakage flow by controlling pressure in water distribution system (2020)* *2/ Study on the evaluation of peak water demand coefficient in water supply network in Hochiminh city (2021)* *3/ Study on the evaluation of water supply standards for apartments in Hochiminh city (2022)* *4/ Study on application of WaterGEMS for a approach for locating leakage in urban water distribution networks (2019)*
Industry collaborations over the last 5 years	*Project title* *Study on the optimism e measure of preventing flood for the water drainage system in Hochiminh city under the effect of climate change and sea level rise* *Partners* *Hochiminh city Department of Agriculture and Rural Development*
Patents and proprietary rights	*Title* *Year*
Important publications over the last 5 years	*1/ Phạm Thị Minh Lành, Nguyễn Quang Trưởng, A Proposed Model for Predicting the Risks of Contamination Intrusion in Water Distribution System, Proceedings of the International Conference on Sustainable Civil Engineering and Architecture, Springer. Volume 80, 805, 2020.* *2/ Nguyen Quang Truong, Pham Thi Minh Lanh, A proposed model for predicting the risks of contamination intrusion in water distribution system, The International Conference on Sustainable Civil Engineering and Architecture, 2019, Hochiminh.* *3/ Nguyen Quang Truong, Pham Thi Minh Lanh, Study on risks of contamination intrusion in water distribution system. Case study: Hai Chau District, Da nang city, Proceedings of the 3rd Joint Seminar on*

	Landslide, Flood disasters and the Environmental issues, 2019, Ha noi. *4/ Lanh Pham Thi Minh, Hai Pham Ha, Truong Nguyen Quang, Hong Le Dinh, Evaluate the Possibility of Cracking Pipe on Water Supply Network under the Age of Pipe, Journal of Environmental Science and Engineering B, 7, 323, 2016*
Activities in specialist bodies over the last 5 years	*Organisation Role Period* *Membership without a specific role need not be mentioned*

II. RESEARCH FELLOWS

Staff Handbook: Lai Duy Phuong

Name	*Lai Duy Phuong*		
Post	*Researcher*		
Academic career	*Initial academic appointment* *Master (Chemical engineering)* *Bachelor of Chemical Engineering*	*Institution* *Ho Chi Minh City University of Technology, Viet Nam* *Ho Chi Minh City University of Technology, Viet Nam*	*Year* *2017* *2009*
Employment	*Position* *Researcher*	*Employer* *HCMUT*	*Period* *2010-now*
Research and development projects over the last 5 years	Study on treating sludge from catfish ponds into organic fertilizer (T-MTTN-2020-59, Trường)		
Industry collaborations over the last 5 years	*Project title* *Partners*		
Patents and proprietary rights	*Title*		*Year*
Important publications over the last 5 years	*Selected recent publications from a total of approx.* *Lai Duy Phuong; Dang Vu Bich Hanh; Trinh Thi Bich Huyen; Do Dinh Nam, Ton Thien Phuong, Optimizing the ratio in microbial*		

	organic fertilizer from cashew shells and fishpond waste (Pangasianodon hypophythalmus), Journal of Recourses and Environment, 8 (358), 61-63, 2021 *Lai Duy Phuong; Dang Vu Bich Hanh; Trinh Thi Bich Huyen; Dang Vu Xuan Huyen, Assess the ability to handle the smell of tobacco in the factory with biological materials, Journal of Recourses and Environment, 17 (295), 24, 2018* *D.V.B. Hanh; T.T.Bich Huyen; N.T.Hang; D.V.X.Huyen, L.D.Phuong, D.D. Nam Study on isolation of radioactive bacteria in soil of titan mining area in Phu Cat, Binh Dinh., Journal of Recourses and Environment, 12(266), 26-27, 2017*
Activities in specialist bodies over the last 5 years	*Organisation Role Period* *Membership without a specific role need not be mentioned*

Staff Handbook: Lam Pham Thanh Hien

Name	*Lam Pham Thanh Hien*		
Post	*Engineer*		
Academic career	*Engineer in major of Chemical*	*Industrial University of HoChiMinh City, Vietnam*	*2013*
	MSc in Environmental Engineering	*Ho Chi Minh City University of Technology (HCMUT), Vietnam*	*2020*
Employment	*Engineer*	*Lab of Environmental Analysis, Faculty of Environment and Natural Resources (FENR), Ho Chi Minh City University of Technology (HCMUT), Vietnam.*	*2011 - now*
Research and development projects over the last 5 years	*Research and manufacture of adsorbent materials from wastewater sludge from water treatment plants to treat H2S (HCMUT, 2018-2019, 30 million VND)* *Research and development of low-cost adsorbent materials oriented to remove hydrogen sulfide components in biogas (HCMUT, 2020-2021, 30 million VND)*		
Industry collaborations over the last 5 years			
Patents and proprietary rights			
Important publications over the last 5 years	*Nguyen Thi Cam Tien, Trinh Thi Bich Huyen*, Lam Pham Thanh Hien, Nguyen Nhat Huy*, A study on the optimization of photocatalytic removal of enrofloxacin using TiO2 material, IOP Conference Series: Earth and Environmental Science (EES), 652, ID 012010, 2021*		

	Nguyen Thi Thuy, Tran Tien Khoi, Dang Thi Anh Thu, Vo Thi Thanh Thuy, Hoang Cong Anh Duy, Lam Pham Thanh Hien, Nguyen Nhat Huy, Nguyen Thi Thuy, Tran Tien Khoi, Dang Thi Anh Thu, Vo Thi Thanh Thuy, Hoang Cong Anh Duy, Lam Pham Thanh Hien, Nguyen Nhat Huy*, Investigation and treatment of air pollution from incense burning in Vietnam, ASEAN Engineering Journal, 11(3), 13-30, 2021* *Bui Van Khanh, Tran Thi My Duyen, Lam Pham Thanh Hien*, Vo Nguyen Xuan Que, Nguyen Nhat Huy*, Analysis of water quality in Saigon River water and its treatment by traditional coagulation – flocculation, IOP Conference Series: Earth and Environmental Science (EES), 652, ID 012013, 2021* *Lam Pham Thanh Hien, Le Nguyen Dang Khoa, Dang Van Thanh, Nguyen Thi Hieu, Tran Thi Phi Oanh, Vo Thi Thanh Thuy, Nguyen Nhat Huy*, Utilization of Alum Sludge from Water Treatment Plant as an Adsorbent for Hydrogen Sulfide Removal, , SNRU Journal of Science and Technology, accepted 30/06/2021, xx-xx, 2021* *Nguyen Nhat Huy*, Nguyen Thi Thuy, Lam Pham Thanh Hien, Nguyen Thi Thanh Hang, Vuong Bao Khuong, Le Thi Kim Phung, Nguyen Thi Le Lien*, Study on the removal of odorous gases from composting process using local bio-media of Vietnam, ASEAN Journal of Chemical Engineering, 20(2), 130-139, 2020* *Thi Thanh Thuy Vo, Hong Son Nguyen, Thi Thu Tran, Pham Thanh Hien Lam, Thi Thuy Nguyen, Nhat Huy Nguyen*, Efects of environmental factors and synthesis conditions on the photocatalytic activity of titanate nanotubes for removal of gaseous formaldehyde, Research on Chemical Intermediates, 46(11), 4793–4809, 2020*
Activities in specialist bodies over the last 5 years	*Organisation Role Period* *Membership without a specific role need not be mentioned*

Staff Handbook: Trinh Thi Bich Huyen

Name	*Trinh Thi Bich Huyen*		
Post	*Researcher in Environmental Microbiology*		
Academic career	*Initial academic appointment* *Master (subject)* *B.Sc. (Biotechnology)*	*Institution* *Ho Chi Minh City University of Technology, Viet Nam* *University of Sciences Ho Chi Minh City, Viet Nam*	*Year* *2014* *2009*
Employment	*Position* *Researcher*	*Employer* *HCMUT*	*Period* *2010-now*
Research and development projects over the last 5 years	*Water Hyacinth treatment by Black soldier fly larvae (HCMUT, 2017-2018, 30 million VND)* *Study on the photocatalytic removal of antibiotics in water by TiO2 materials (HCMUT, 2020-2021, 30 million VND)* *Biochip using Peptide Nucleotid Acid for detection E. coli (Murata foundation, 2020-2021, 64 million VND)*		
Industry collaborations over the last 5 years	*Project title* *Partners*		
Patents and proprietary rights	*Title*		*Year*
Important publications over the last 5 years	*Selected recent publications from a total of approx.* *Nguyen Thi Cam Tien, Trinh Thi Bich Huyen, Nguyen Thi Thuy, Dang Van Thanh, Nguyen Trung Thanh and Nguyen Nhat Huy, Degradation of*		

	enrofloxacin by photocatalysis using titanium dioxide nanomaterials, IOP Conference Series: Earth and Environmental Science, 799, ID 012033, , 2021. *Nguyen Thi Cam Tien, Trinh Thi Bich Huyen*, Lam Pham Thanh Hien, Nguyen Nhat Huy*, A study on the optimization of photocatalytic removal of enrofloxacinusing TiO2 material, IOP Conference Series: Earth and Environmental Science (EES), 652, ID 012010 (2021), 2021* *D.V.B. Hanh; T.T.Bich Huyen*; D.V.X.Huyen, L.D.Phuong, N.H.Y. Nhi, H.M. Nhu, N.P.Khanh, Using PNA (Peptide Nucleotide Acid) to detection of E. coli, Journal of Recourses and Environment, 23, 2019.* *Lai Duy Phuong; Dang Vu Bich Hanh; Trinh Thi Bich Huyen; Dang Vu Xuan Huyen, Assess the ability to handle the smell of tobacco in the factory with biological materials, Journal of Recourses and Environment, 17 (295), 24, 2018* *D.V.B. Hanh; T.T.Bich Huyen; N.T.Hang; D.V.X.Huyen, L.D.Phuong, D.D. Nam Study on isolation of radioactive bacteria in soil of titan mining area in Phu Cat, Binh Dinh., Journal of Recourses and Environment, 12(266), 26-27, 2017* *N.T.Nhu Nguyet; N.Khac Bien; T.T.Bich Huyen; D.V.Bich Hanh, Use of local inoculant to produce organic fertilier from the brewing industry, Science & Technology Development Journal, 20, 25, 2017*
Activities in specialist bodies over the last 5 years	*Organisation Role Period* *Membership without a specific role need not be mentioned*

Staff Handbook: Tran Thi Phi Oanh

Name	*Tran Thi Phi Oanh*		
Post (vị trí)	*Researcher - practical teaching*		
Academic Career (Quá trình đào tạo)	PhD in Hydrogeochemistry	Ho Chi Minh City University Of Technology (HCMUT), VNU – HCM	2013 -2020
	MSc in Environmental Engineering	Ho Chi Minh City University Of Technology (HCMUT), VNU – HCM	2011- 2013
	MBA in Business Administration	Benedictine University, United States	2011- 2013
	Bachelor in Environmental Engineering	Ho Chi Minh City University Of Technology (HCMUT), VNU – HCM	2000 -2005
Employment (Nghề nghiệp)	Researcher - practical teaching	Researcher at Analysis and Environmental Technology Laboratory, Faculty of Environment and Natural Resources (FENR), Ho Chi Minh City University of Technology (HCMUT), VNU-HCM, Vietnam.	2008 - now

Research and development projects over the last 5 years **(Các dự án nghiên cứu khoa học trong 5 năm gần nhất)**	Research member, "Determine the maximum allowable drawdown when exploiting underground water in Tra Vinh province" (Funding institution: Ho Chi Minh city University of Technology – National University) (2020 - 2021). Research member, "Assessment of bank stability for sustainable development – case study: CU CHI suburban district from Den Do cape – HCM city" (Funding institution: Ho Chi Minh city University of Technology – National University) (2019 - 2020). Research member, "Research on synthesizing photocatalysts based on nanotube titanium dioxide for the treatment of formaldehyde and nitrogen dioxide in the air under normal conditions." (Funding institution: Ho Chi Minh city University of Technology – National University) (2019 - 2021). Research member, "Research and proposed solutions response to climate change - Sea Level Rising in Ho Chi Minh City." (Funding institution: Ho Chi Minh city University of Technology) (2018 - 2019). Manager, "The correlation between iron, manganese and aluminum of Pleistocen aquifer in Ho Chi Minh city" (Funding institution: Ho Chi Minh city University of Technology) (2017 - 2018). Manager, "The origins of metal of Pleistocen aquifer in Ho Chi Minh city", (Funding institution: Ho Chi Minh city University of Technology) (2016 - 2017).
Important publications over the last 5 years	Ha Lan Nguyen, Viet Ky Nguyen, Van Ngo Dau, Thi Phi Oanh Tran, Evaluation of groundwater quality for domestic purposes and human health risk assessment for arsenic and manganese exposure in Cu Chi district, Ho Chi Minh city,

	Vietnam., Vietnam Journal of Science,Technology and Engineering, Volume 62, Number 2, 41-47, 2020 Tran Thi Phi Oanh, Nguyen Nhat Huy, Lai Duy Phuong, Nguyen Thi Nhung, Lam Pham Thanh Hien, Nguyen Đinh Tu, Dao Hong Hai, Nguyen Viet Kỳ, An overview of heavy metal in groundwater of the Pleisotcene layer in the Northweast region of Ho Chi Minh City, Journal of Natural Resources and Environment, science and technology topics II, 62 -64, 2020 Ho Chi Thong, Dau Van Ngọ, Nguyen Kim Phuong, Tran Thi Phi oanh, "Assessment of bank stability for sustainable development – case study: CU CHI suburban district from Den Do cape – HCM city, Geotechnics magazine, number 1+2, 3-11, 2019 Nguyen Viet Ky, Ho Chi Thong, Tran Thi Phi Oanh, Ngo Duc Chan, Effects of The Sea Level Rise on Underground Water Resources in Ho Chi Minh Area, Journal of science and technology, 54(4B), 260-269, 2016. Tran Thi Phi Oanh, Mai Hoang Phuc, Nguyen Viet Ky, Dau Van Ngo, Ho Chi Thong, Assessing Metal Pollution in Groundwater at Pleistocene Area in Go Vap, Ho Chi Minh City, Journal of science and technology, 54(4B), 270-276, 2016. Tran Thi Phi Oanh, Nguyen Viet Ky, Tran Quoc Dung, Ho Chi Thong, Current Status and Risk of Water Resources Uses for Living in Cu Chi District, Ho Chi Minh City, Journal of science and technology, 19(K1-2016), 122-130, 2016.

Staff Handbook: Nguyen Huu Viet

Name	*Nguyen Huu Viet*		
Post	*researcher*		
Academic career	*Initial academic appointment*	*Institution*	
	PhD, Environmental Engineering	*Gwangju Institute of Science and Technology*	*Year 2014-2021*
	Bachelor, Chemical Engineering	*Vietnam National University Ho Chi Minh City – Ho Chi Minh University of Technology*	*2004 - 2010*
Employment	*Position Researcher*	*Employer Ho Chi Minh University of Technology, Faculty of Environment and Natural Resources*	*Period 2010 - present*
Research and development projects over the last 5 years	*Speciation and bioaccumulation of mercury in the Mekong River, Vietnam (UNU-GIST Program, 2010 - 2015)* *Prediction of metal bioavailability and toxicity using passive samplers, Korea* *The development of prediction and evaluation for fate of mercury in lake ecosystems in Korea (ME 2015 - 2018)* *Application of diffusive gradient in thin films technique for mercury bioavailability prediction in soil, PhD programs 2014 - 2021*		
Industry collaborations	*N/A*		

over the last 5 years	
Patents and proprietary rights	*N/A*
Important publications over the last 5 years	*Viet Huu Nguyen, Jae-young Seon, Ghulam Hussain Qasim, Hasan Fareed, Yongseok Hong & Seunghee Han Applying the diffusive gradient in thin films method to assess soil mercury bioavailability to the earthworm Eisenia fetida, Environmental Science and Pollution Research, 29, 39840-39852, 2021* *Viet Huu Nguyen, Seah Kah Yee, Yongseok Hong, Deok Hyun Moon, Seunghee Han, Predicting mercury bioavailability in soil for earthworm Eisenia fetida using the diffusive gradients in thin films technique, Environmental Science and Pollution Research, 26, 19549- 19559, 2019*
Activities in specialist bodies over the last 5 years	*N/A*

III. VISITING LECTURERS

1. CV - ADITYA PRANA ISWARA

ADITYA PRANA ISWARA

Home Address

Jln Mulyosari Baru No 27

RT/RW 001/007

Kelurahan Kalirasi

Kec. Mulyorejo

Kota Surabaya

East Java

Indonesia

Nationality

Indonesian

Date of Birth

July 13, 1989

e-mail

adityaprana64@gmail.com

Phone

+62 812 8372 5171

CURRENT POSITION

- Lecturer of UPNV (Universitas Pembangunan Nasional Veteran Jawa Timur)
- Director of PET (Properindo Enviro Tech Consultant)
- Environmental Expert of BPPU ITS (Project and Business Management Department, Institut Teknologi Sepuluh Nopember)

EDUCATIONS M.Sc., Environmental Engineering (2014)

National Chiao Tung University, Taiwan (NCTU) Nanoparticle and Air Pollution Laboratory **Thesis:**

Parallel Plate Wet Denuder for Studying the Removal Efficiency of Packed Wet Scrubber **Advisor:**

Professor Chuen-Jinn Tsai

S.T., Environmental Engineering (2011)

Institut Teknologi Sepuluh Nopember Surabaya (ITS) **Final Project:**

Effect of Aeration and Natural Light in Capability Of High Rate Algae Reactor (HRAR) for Organic Matter Removal of Domestic Urban Wastewater **Advisor:**

Welly Herumurti S.T M.Sc

(wellyherumurti@yahoo.com; herumurti@enviro.its.ac.id)

RESEARCH EXPERIENCES

Inorganic Ion of Particulate Matter at Ambient Environment (Research member)

Evaluation of Denuder Sampler for Gas and Particulate Separation (Research assistant)

PUBLISHED PAPER

 Chien, C.L., **Iswara, A.P**., Liou, Y.L., Wang, B.T., Chang, J.C., Hung, Y.H., & Tsai, C.J. 2015.

A Real-Time Monitoring System for Soluble Gas Pollutants and it's Application for Determining the Control Efficiency of Packed Towers. Separation and Purification Technology, 154. 137– 148.

RESEARCH INTERESTS

Environmental Science, Energy Utilization, Sanitation, Waste Cycle, Air Pollution Climate Change, and Bio-remediation.

TEACHING EXPERIENCES

- Universitas Pembangunan Nasional Veteran Surabaya
- Water Conservation
- Hazardous Waste
- Air Pollution
- Drinking Water Process
- Design of Water Treatment Plant
- Universitas Kristen Petra Surabaya
- Environmental Basic

TEACHING INTERESTS

Environmental Science, Air Pollution, Climate Change, Research and Methodology, Urban Sanitation

CONFERENCES

- **Iswara, A.P.**, Ramziya, R. and Boedisantoso, Rachmat. 2017. *Potential CO2 Emission of Intentional Municipal Solid Waste Open Burning on 3 Various Type of Rural Area*. International Conference On Innovation And Industrial Application, CINIA 2017. Surabaya.
- **Iswara, A.P.**, Tsai, C.J., Chang, J.C., and Liou, Y.L. 2013. *Determination of Inorganic Acid Using Parallel Plate Wet Denuder and Porous Metal Denuder in a Semiconductor Factory*. 20th

  International Conference on Aerosol Science and Technology / Conference on Management Strategies and Monitoring of $PM_{2.5}$ (National Central University, Chungli-Taiwan)
- Slamet, A., **Iswara, A.P.**, Farahdiba, A.U., Alwi, J., Ardhanareswari, S.A., Herumurti, W., Warmadhewanti, Hermana, J. *Remediation of the Boezem Polluted by Urban Wastewater Using the Cultivation of Algae (Case Study: Boezem Kalidami in Surabaya City)*. Proceeding 4th Environmental Technology and Management Conference (ETMC) 2011 (Institut Teknologi Bandung)

WORKSHOPS and TRAININGS

- *Academic Writing Training for International Publication* at 2016 held by Environmental Engineering Universitas Islam Indonesia.
- *Life Cycle Assessment and Carbon Accounting Workshop* at 2016 held by Environmental Engineering, Institut Teknologi Sepuluh Nopember Surabaya
- *Geospatial Information System for Pollution Mapping* at 2016 held by Environmental Engineering, Institut Teknologi Sepuluh Nopember Surabaya

- *Environmental Management System 14001:2015 Training* at 2016 held by Ministry of Environment and Forestry
- *Environmental Performance Assessment (PROPER) Workshop* at 2015 held by Ministry of Environment and Forestry
- *Statistic Process and Analysis Workshop for Experimental Data* at 2014 held by Hsinchu Indonesian Research and Study Group (HIRSC)
- *Word Processor Workshop for Scientific Purpose* at 2013 held by Hsinchu Indonesian Research and Study Group (HIRSC)
- *Interpreting and Implementing OHSAS 18001:2007 Training* at 2011 held by DQS Certification Indonesia
- *ISO 9001:2008 Training* at 2010 held by Cemara Career Development

ACTIVITIES

- **Speaker** of *Internal Assessor of Environmental Performance Workshop* (Workshop Asesor Internal Kinerja Lingkungan) at July 2018 held by PT Perusahaan Listrik Negara (PLN) South Sumatera Region.
- **Speaker** of *Innovation Program for Supporting Environmental Performance* (Workshop Program Inovasi Sebagai Pendukung Kinerja Lingkungan) at July 2018 held by PT Perusahaan Listrik Negara (PLN) Head Quarter.
- **Speaker** of *Environmental Assessment Performance for 2018 Preparation Workshop* (Pelatihan Awareness Penilaian Kinerja Lingkungan (PROPER) Untuk Persiapan Tahun 2018) at December 2017 held by PT Indonesia Power Unit PLTGU Cilegon
- **Speaker** of *Environmental Assessment Performance Workshop* (Pelatihan Awareness Penilaian Kinerja Lingkungan (PROPER)) at October 2017 held by PT Pertamina RU VII Kasim
- **Speaker** of *Environmental Assessment Performance Awareness Workshop* (Pelatihan Awareness Penilaian Kinerja Lingkungan (PROPER)) at October 2017 held by PT Indonesia Power Unit PLTGU Cilegon

- **Speaker** of *Evaluation and Documenting of Green and Gold PROPER (Evaluasi dan Penyusunan Dokumen PROPER Hijau Emas)* at July 2017 held by PT Pembangkit Jawa Bali (PJB) Indramayu
- **Speaker** of *Technical Guidance Workshop Environmental Summary* (Bimbingan Teknis Penyusunan DRKPL (Dokumen Ringkasan Kinerja Pengelolaan Lingkungan)) at March 2017 held by PT Perusahaan Listrik Negara (PLN).
- **Speaker** of *Evaluation and Documenting of Green and Gold PROPER (Evaluasi dan Penyusunan Dokumen PROPER Hijau Emas)* at March 2017 held by PT Pembangkit Jawa Bali (PJB).
- **Speaker** of *PROPER as Environmental Assessment by Ministry of Environment and Forestry* at 2016 held by Pertamina Marketing Operation Region Palembang.
- **Speaker** of *PROPER as Environmental Assessment by Ministry of Environment and Forestry* at 2016 held by Pertamina Lubricant.
- **Speaker** of *A Good Visual for Supporting Scientific Presentation* on Public and Academic Speaking Workshop at 2016 held by Study Group 10 Nopember (SG 10)
- **Evaluator** of *Environmental Performance Assessment for Beyond Compliance Criteria (PROPER HIJAU EMAS)* at 2015 held by Ministry of Environment and Forestry
- **Evaluator** of *Environmental Performance Assessment for Compliance Criteria (PROPER BIRU)* at 2015 held by Ministry of Environment and Forestry
- **Speaker** of *Small Act to Minimize Solid Waste* on the Earth Day Event at 2015 held by Environmental Engineering, Universitas Pembangunan Nasional Surabaya.
- **Committee** of *the 1st Annual International Scholars Conference in Taiwan "Fostering Growth in Knowledge – Based Economy through Technopreneurship: Building a Platform for a Smooth Transformation of Innovative Technology to Business."* At 2013 held by Indonesian Muslim Student Association.

EXPERIENCES Director of Properindo Enviro Tech Consultant

(January 2017-Now)

Managing a newly build company specialized on environmental problem including environmental management, water and waste water, solid waste management and air pollution. **Lecturer**

(February 2015-Now)

Universitas Pembangunan Nasional "Veteran" Surabaya.

Part-time lecturer majoring at water conservation, hazardous waste and air pollution.

(February 2015-June 2015)

Universitas Kristen Petra Surabaya.

Teaching subject of environmental basic knowledge.

Environmental Expert

(June 2014-Now)

I work as environmental project assistant at ITS. My work covers environmental aspects including urban air pollution, sanitation, water access and distribution, and wastewater.

Finished Project

- Pendampingan DRKPL Pertamina Refinery Unit III Plaju, Palembang, Sumatera Selatan (*Environmental Performance Resume Document Assisting at Pertamina Refinery Unit III Plaju, Palembang, and South Sumatera*) **Finished at 2018**.
- Pendampingan dan Penyusunan PROPER Hijau Semen Indonesia Pabrik Tuban, Jawa Timur (*Environmental Performance Assisting and Supporting for National Standard Evaluation at Semen Indonesia Unit Tuban, East Java)* **Finished at 2018**.
- Pendampingan dan Penyusunan PROPER Hijau Star Energy Geothermal Indonesia Gunung Salak, Sukabumi (*Environmental Performance Assisting and Supporting for National Standard Evaluation at Star Energy Geothermal Indonesia Gunung Salak, Sukabumi)*

Finished at 2018.

- Pendampingan dan Penyusunan PROPER Hijau PT Indonesia Power Unit Pesanggaran, Bali (*Environmental Performance Assisting and Supporting for National Standard Evaluation at PT Indonesia Power Unit Pesanggaran, Bali)* **Finished at 2018**.
- Pendampingan dan Penyusunan Dokumen PROPER Hijau PT PLN Indralaya, Sumatera Selatan (*Environmental Performance Assisting and Supporting for National Standard Evaluation at PT PLN Indralaya, South Sumatera*) **Finished at 2018**.
- Pendampingan dan Penyusunan Dokumen PROPER Hijau British Petroleum Berau Tangguh Site (BP Berau Tangguh) (*Environmental Performance Assisting and Supporting for National Standard Evaluation at British Petroleum Berau Tangguh Site*) **Finished at 2018**.
- Pendampingan dan Penyusunan Dokumen PROPER Hijau Pertamina RU VI Balongan (*Environmental Performance Assisting and Supporting at National Standard Evaluation for Pertamina Refinery Unit VI Balongan*) **Finished at 2017**.
- Pendampingan dan Penyusunan Dokumen PROPER Hijau Pertamina Lubricant Unit Cilacap (*Environmental Performance Assisting and Supporting for National Standard Evaluation at Pertamina Lubricant Unit Cilacap and Gresik*) **Finished at 2017**.
- Pendampingan dan Penyusunan Dokumen PROPER Hijau PLN Sektor Keramasan untuk 2 lokasi PLTGU Keramasan dan PLTGU Indralaya (*Environmental Performance Assisting and Supporting for National Standard Evaluation at PLN Unit PLTGU Indralaya and Keramasan*) **Finished at 2017**
- Pendampingan dan Penyusunan Dokumen PROPER Hijau Indonesia Power Unit Cilegon, dan Tambak Lorok (*Environmental Performance Assisting and Supporting for National Standard*

  Evaluation at Indonesia Power Unit Cilegon, Tambak Lorok) **Finished at 2017**
- Evaluasi Kriteria Program dan Inovasi Lingkungan PROPER Hijau PT Indonesia Power untuk 13 Unit (*Evaluation of Environmental Program and Innovation for PROPER PT Indonesia Power for 13 Units*). **Finished at 2017**.

- Pendampingan dan Penyusunan Dokumen PROPER Hijau Indonesia Power Unit Cilegon, Pesanggaran, Gilimanuk, Grati, Kamojang Darajat, Tambak Lorok, Suralaya (*Environmental Performance Assisting and Supporting for National Standard Evaluation at Indonesia Power Unit Cilegon, Pesanggaran, Gilimanuk, Grati, Kamojang Darajat, Tambak Lorok, Suralaya*) **Finished at 2016**
- Pendampingan dan Penyusunan Dokumen PROPER Hijau JOB Pertamina-Medco Tomori (*Environmental Performance Assisting and Supporting for National Standard Evaluation at JOB (Join Operation Body) Pertamina-Medco Tomori*) **Finished at 2016**
- Pendampingan dan Penyusunan Dokumen PROPER Hijau Pertamina Pemasaran Marketing Operation Region Jawa Timur (*Environmental Performance Assisting and Supporting for National Standard Evaluation at Pertamina Marketing Operation Region East Java*)

  Finished at 2016
- Pendampingan dan Penyusunan Dokumen PROPER Hijau Pertamina Pemasaran Marketing Operation Region Palembang (*Environmental Performance Assisting and Supporting for National Standard Evaluation at Pertamina Marketing Operation Region Palembang*) **Finished at 2016**
- Pendampingan dan Penyusunan Dokumen PROPER Hijau Pertamina Lubricant Unit Cilacap (*Environmental Performance Assisting and Supporting for National Standard Evaluation at Pertamina Lubricant Unit Cilacap and Gresik*) **Finished at 2016**.
- Pendampingan dan Penyusunan Dokumen PROPER Hijau Pertamina Lubricant Unit Gresik (*Environmental Performance Assisting and Supporting for National Standard Evaluation at Pertamina Lubricant Unit Cilacap and Gresik*) **Finished at 2016**.
- Verifikasi data dan Benchmarking Sumber Daya Energi, Limbah B3, 3R Limbah Padat Non B3, Pengurangan Pencemar Udara Dan Konservasi Air PT Pertamina Hulu Energy West Madura Offshore (PHE WMO). (*Data Verification and Benchmarking of Energy Resource, Hazardous Waste, Solid Waste Management, Air Pollution Reduction, and Water Conservation at PT Pertamina Hulu Energy West Madura Offshore (PHE WMO)*).

Finished at 2016

- Sistem Penyaluran Air Minum Kawasan Kumuh Provinsi Nusa Tenggara Timur (*Slum Area Water Supply Management System of Province of Nusa Tenggara Timur*). **Finished at 2016.**
- Sistem Penyaluran Air Minum Berbasis Lingkungan Provinsi Nusa Tenggara Timur (*Environmental Based Water Supply and Management System of Province of Nusa Tenggara Timur*). **Finished at 2015.**
- Verifikasi data dan Benchmarking Sumber Daya Energi, Limbah B3, 3R Limbah Padat Non B3, Pengurangan Pencemar Udara Dan Konservasi Air PT Pertamina Hulu Energy West Madura Offshore (PHE WMO). (*Data Verification and Benchmarking of Energy Resource, Hazardous Waste, Solid Waste Management, Air Pollution Reduction, and Water Conservation at PT Pertamina Hulu Energy West Madura Offshore (PHE WMO)*). **Finished at 2015.**
- Verifikasi data dan Benchmarking Sumber Daya Energi, Limbah B3, 3R Limbah Padat Non B3, Pengurangan Pencemar Udara Dan Konservasi Air Star Energy Kakap Ltd. (*Data Verification and Benchmarking of Energy Resource, Hazardous Waste, Solid Waste Management, Air Pollution Reduction, and Water Conservation at Star Energy Kakap Ltd.*). **Finished at 2014.**
- Verifikasi data dan Benchmarking Sumber Daya Energi, Limbah B3, 3R Limbah Padat Non B3, Pengurangan Pencemar Udara Dan Konservasi Air Star Energy Geothermal Wayang Windu Ltd. (*Data Verification and Benchmarking of Energy Resource, Hazardous Waste, Solid Waste Management, Air Pollution Reduction, and Water Conservation at Star Energy Geothermal Wayang Windu Ltd.*). **Finished at 2014**.

On Going Project

- Workshop Awareness Evaluasi Kinerja Lingkungan Nasional PT PLN Sektor Kapuas, Kalimantan Barat. (*National Environmental Performance Evaluation Awareness Workhsop with PT PLN Sektor Kapuas, West Kalimantan*)

Penilai PROPER Biru dan Hijau Emas

Kementrian Lingkungan Hidup dan Kehutanan (August and October 2015)

I was an evaluator of Proper (Program Penilaian Peringkat Kinerja Perusahaan (PROPER) for PROPER Biru (aspek penaatan) and PROPER Hijau-Emas (Beyond Compliance) that was held by Kementrian Lingkungan Hidup dan Kehutanan.

Research Assistant

National Chiao Tung University (February 2012-2014)

I was a graduate student and I partially worked as a research assistant in the air pollution field, especially gas pollutant sampler design for air monitoring

Sewerage System Freelance Surveyor

Institut Teknologi Sepuluh Nopember Surabaya (June 2011 – December 2011)

I worked as freelance surveyor of unserved mapping area for DSDP (Denpasar Sewerage Development Project) cooperated with ITS.

Water Contamination Laboratory Assistant

Institut Teknologi Sepuluh Nopember Surabaya (February 2011 – June 2011)

I assisted student for doing laboratory work, especially related to water pollutant analysis at water laboratory.

Environmental Rural Health and Sanitation Assistant

Institut Teknologi Sepuluh Nopember Surabaya (July 2010 – August 2010)

I worked for 2 months as internship sanitation assistant at Ngancar, Kab. Kediri. The job is described as health care and environmental management especially for poor rural people as

part of MDGs (Millennium Development Goals) program. I used modest design of alternative technology for the approach and help designing modest bio-reactor to generate alternative energy.

ORGANIZATIONS

- **Coordinator** of Hsinchu Indonesian Research and Study Club (HIRSC)

  (2012-2014)

  Along with several Indonesian PhD Students at NCTU, I initiated HIRSC (Hsinchu Indonesian Research and Study Club) at 2013 to fulfill a research sharing forum for Indonesian graduate student.

- **Head** of SG 10 (Studi Grup Sepuluh Nopember Surabaya)

  (2010-2011)

  As coordinator, my works and responsibility cover entire organization

- **General Secretary** of HMTL (Himpunan Mahasiswa Teknik Lingkungan) ITS (2009-2010)

  My work covers internal activity and department control

- **Staff** of community service department of BEM (Badan Eksekutif Mahasiswa) ITS (2008-2009)

  My work covers social activity for society, for example khitanan massal, rumah buku, tutor gratis, kampung bina lingkungan, etc.

- **Department coordinator** of information and communication of SG 10 (Studi Grup Sepuluh Nopember Surabaya)

  (2008-2009)

  Provide information such as scholarship and academic related information for SG 10 member

LANGUAGES

Indonesian:

Native or Bilingual Proficiency **English:**

Full Professional Proficiency

OTHER INTERESTS

- Reading: Scientific article for personal research development, fictional and non-fictional book for additional knowledge.
- Sport: Tennis
- Photography (Nominated as best twenty at “Kesan Indah Taiwan Photo Competition” held by Radio Taiwan International)

2. CV - Phat V. Luong

Phat V. Luong

3822 7th St. S	Phone:	+1 (703) 953-9646
Arlington, VA 22204	Email:	phatluong@gmail.com

Nationality: U.S.Citizen

Education

2012–2018	Ph.D. in Management, Rutgers University Thesis Title: Three Essays in Commodity Risk Management Supervisors: Ben Sopranzetti
2008–2009	M.B.A. in Finance, M.S. in Statistics, University of Texas–Arlington
2003–2007	B.E. in Environmental Science, Ho Chi Minh City University of Technology

Appointments

2015–2018 Lecturer, Management Science & Information Systems Department, Rutgers University

2012–2016 Teaching Assistant, Supply Chain Management Department, Rutgers University

Teaching

Rutgers University

Spring	2018	29:623:311 Production & Operation Management
Fall	2017	29:623:311 Production & Operation Management

Summer	2017	29:799:310 Demand Planning
Fall	2015	29:623:311 Production & Operation Management
Summer	2015	33:390:420 Futures and Options
Spring	2015	29:623:311 Production & Operation Management

Publications

Working Papers

Luong, P.V., & Xu, X. (2019). Attitudes toward risk and cost pass-through under uncertainty.

Luong, P.V., & Xu, X. (2018). A Variance Analysis Approach for Pass-through of Cost Shocks in A Channel with Risk-averse Agents.

Luong, P.V., & Sopranzetti, B. (2018). Government Intervention in Securities Markets: Evidence of Contagion, Speculation, and Informed Trading.

Luong, P.V., Mizrach, B., & Otsubo, Y. (2014). Location basis differentials in crude oil prices

Luong, P.V. (2017). Roles and Behaviors of Commodity Inventory

Contributed Presentations

Luong, P.V., & Xu X. (2018). Pass-through of commodity price shocks in distribution channels with risk-averse agents, Informs Annual Meeting, Phoenix, AZ, November 2018.

Luong, P.V., & Sopranzetti B. (2018). Government interventions in the futures market and unintended consequences, Global Finance Meeting, Paris, France, July 2018.

References

Ben Sopranzetti	**Bruce Mizrach**
(848) 445-4188	(848) 932-8636

sopranze@business.rutgers.edu

Xiaowei Xu

(973) 353-5186

xiaoweix@business.rutgers.edu

mizrach@econ.rutgers.edu

Rosa Oppenheim

(973) 353-5393

oppenheim@business.rutgers.edu

3. CV - Tannita

Ms. Tanita Suepa (Ph.D.)

Chief of Instructional Media and Curriculum Development Division

Knowledge Development and Outreach Office

Geo-informatics and Space Technology Development Agency (GISTDA) 2/14/2019

E-mail Address: tanita@gistda.or.th **Tel: 66 (0) – 86-417-9882**

Office Address (Thailand): Knowledge Development and Outreach Office Geo-Informatics and Space Technology Development Agency (GISTDA) (Public Organization)

88 Moo 9 Tambon Thung Sukala, Amphoe Siracha, CHONBURI 20230, THAILAND

Tel: 66 (0)- 33-048-091 # 104-106 http://www.gistda.or.th

E-mail: tanita@gistda.or.th

Nationality:

Thai

Education:

2008-2013	Ph.D. Program in Remote Sensing and Cartography, Department of Geography, Environment, and Spatial Sciences, Michigan State University
Dissertation Topic:	Satellite Time-series Data for Vegetation Phenology Detection and Environmental Assessment in Southeast Asia
	G.P.A. 3.92

1995-1998	Master of Urban and Regional Planning Faculty of Architecture, Chulalongkorn University G.P.A 3.75
Thesis Topic:	The Development Planning for Residential Land Use in the Suburban Area: A Case Study of Min Buri District, Bangkok
1991-1994	Bachelor of Arts (Geography) Faculty of Arts, Chulalongkorn University G.P.A 3.51 (2nd Class Hons)

Research Interests: Geo-informatics technology for global, climate, and environmental changes, environmental model, remote Sensing for vegetation phenology detection, and cartographic design

Working Experience: 2013 – Present

Position: Chief of Instructional Media and Curriculum Development Division
Technology Transfer and Knowledge Development Office
Geo-informatics and Space Technology Development Agency (GISTDA)

Responsibilities:

- Develop curricula and implement capacity building programs on geo-informatics and space technology for all levels
- Survey, research, analyze academic market in order to develop and design curriculum as users' request and responding to the needs and priorities of Thailand and ASEAN region including evaluating training courses and outreach programs to increase human capacity building in geo-informatics and space technology as well as develop national and international higher education for business and social benefits

- establish and enhance extensive academic network of educational institutions, government and public organizations to strength, deepen, and widen educational cooperation in national and international levels
- Develop and design educational media and resources for all levels

2008 – 2013 **Position: Research Assistant**

Center for Global Change and Earth Observations, Michigan State University

Responsibilities: Remote sensing and cartography in global and environmental change projects:

- Forecasting and Evaluating Vulnerability of Watersheds to

  Climate Change, Extreme Events, and Algal Blooms (EPASTAR): April 2013 – present
- Great Lake Restoration Initiative: Harmful Algal Blooms (GLRI-HABs): September 2012 – March 2013
- Remote Sensing for Ecological Change Analysis in Southeast

  Asia (MEXT – JAPAN): May 2010 – present
- Senegal Crop Mapping Information Platform (Senegal CMIP): July 2010 – present
- Unmixing Classification and Crop Estimation in Senegal: Famine Early Warning Systems Network (USAID – FEWS NET): July 2010 – present
- Assessing Corn and Soybeans Production from 2001-2009 in U.S.: BioEconomy Project: July 2009 – June 2010
- Satellite Time-series Data Analysis and Phenology Detection in

  China: May 2008 – June 2009

2002 - 2008 **Position: Geo-Informatics Scientist/Acting Chief of Central Affair**

The Institute of Space Knowledge Development,

Geo-Informatics and Space Technology Development Agency (Public Organization)

Responsibilities : Developing knowledge-based of space and geo-

informatics which comprises of curriculum, teaching and training materials development, such as, text book, e-Learning and transferring this technology to other organizations in Thailand by training and workshop program, the tasks are as following;

- Strengthen national capacity in space technology and geoinformatics applications
- Develop technical knowledge of space technology and geoinformatics including curriculum and teaching/training materials
- Transfer space technology and geo-informatics to other organizations in Thailand by organizing training and workshop programs
- Lecture on remote sensing and GIS for GISTDA training program, universities and other organizations
- Research and develop knowledge-based of space technology and geo-informatics, particularly GIS, cartography and mapping - Project: Human-Chicken Multi-relationship Research (HCMR): Geography Group under H.I.H Prince Akishino's Research (Japan) and the patronage of H.R.H. Princess Maha Chakri Sirindhorn (Thailand)
- Create academic consortium network and establish an international training centre for Asian region in knowledge-based of space technology and geo-informatics applications
- Work on the Committee of Space and Geo-Informatics Academic Development and Technology Transfer of GISTDA

2002 - 2003 **Position: Lecturer**

Urban Environmental Planning and Management Section, Faculty of Architecture, Thammasat University

Responsibilities: Develop urban planning curriculum, teaching and research in urban planning, GIS and environmental fields

1999 – 2002 **Position: Environmentalist**

Environmental Promotion and Dissemination Sub-division, Environmental Quality Management and Control Division, Office of Permanent Secretary for the BMA.

Bangkok Metropolitan Administration

Responsibilities for environmental projects as followed:

- Bangkok Air Quality and Management Project
- GIS for Bangkok Environmental Project
- Bangkok Green Fleet Project
- Training Workshop for BMA Inspectors on Urban Environmental Issues
- Bangkok City State of the Environment Report
- EQMCD's Web Site
- Environmental Information System

1998 – 1999 **Position: Research Assistant**

Chulalongkorn University Social Research Institute

Responsibilities: Research in urban planning, environment field and GIS applications as following projects:

- Sustainable Development : Direction for Prachiburi Province
- Contribution of Tourism to The Sustainable Development of Secondary Cities in Thailand
- Bangkok Development Plan (Yannawa, Sathon, Bangkoleam

  District)
- Bangkok Development Plan (Bangsue, Jatujak, Huikhang

  District)
- Governmental Land Use Planning for Saraburi Province
- Garbage Management for Inner Zone of Bangkok
- Transport Data and Model Center Project
- The Development for Environment Impact Assessment in Public Participation Project

1997 **Position: Information Technology Officer (part-time)**

Architecture Siam Association

Responsibilities: Develop and design members' database system including management and maintenance, project analysis and library system arrangement

Training:

2013 The COSPAR Capacity Building Workshop 2013 GISTDA Training "Atmospheric Correction of Earth Observation Data for Facility, Bangkok,

Environmental Monitoring: Theory and Best Practices" Thailand 4-8 November 2013

2007 Environmental Impact Assessment and Strategic ITC, The Netherlands

Environmental Assessment Using Spatial Decision Support Tools

2006 e-Learning Design and Concept Ministry of Science and Technology, Bangkok, Thailand

2005 GIS (Geographic Information System) Technology for JICA, Japan Sustainable Management of Natural Resources and Agricultural Products

2004 JICA-Net Videoconferencing Seminar Remote JICA, Bangkok, Thailand Sensing and GIS Course

2004	Thai-French Training Workshop on DEM Generation SPOT Data	GISTDA, Bangkok, Thailand
2004	Digital Photogrammetry	Chulalongkorn University, Bangkok, Thailand
2004	Ikonos Image Processing	GISTDA, Bangkok, Thailand

2003	Applications of Satellite Imagery and GIS to Natural Hazards and Water Management	GDTA and GISTDA, Bangkok, Thailand
2003	Mapping from High Resolution Satellite Imagery	GISTDA, Bangkok, Thailand
2003	Operational Monitoring with RADARSAT Rice Mapping and Oil Spill Monitoring and	Radarsat International GISTDA, Bangkok, Thailand
2003	Combining Geometric Image Processing & GPS Techniques for Space Cartography	GDTA, France
2003	Workshop on Applications of ASTER Data	GISTDA and ERSDAC, Bangkok, Thailand
2003	GPS for Surveying	Department of Survey Engineering, Faculty of Engineering, Chulalongkorn University, GISTDA, Bangkok, Thailand
2001	Leadership and Commitment to Improve the Air Quality of Bangkok	USEPA, US-AEP, Kenan Institute and BMA
2001	Bangkok Environmental Protection Volunteer Lecturer	BMA., Bangkok, Thailand
2001	Air Quality Data Interpretation	BMA. And Thammasat University, Bangkok, Thailand
2000	Training Workshop for BMA Inspectors on Urban Environmental Issues	UNEP, THAITREM and BMA., Bangkok, Thailand
2000	Training Workshop on Geographic Information System (GIS)	BMA., Bangkok, Thailand

2000 The Bangkok City State of the Environmental Database UNEP.RRC.AP and and Reporting BMA., Bangkok, Thailand

2000 Set up and Design Web Site American Information

System Training Center, Bangkok, Thailand 1999

Training on Indicator Setting up and Development Chulalongkorn University Social Research Institute, Bangkok, Thailand

1995 Internship for Master Degree Bangkok, Thailand

Team Consulting (Engineers) Co, Ltd.

Training on GIS(Geographic Information System),

Mapinfo, Arcview

1993 Internship for Bachelor Degree Bangkok, Thailand

ESRI (Thailand) Co,Ltd. Training on GIS (Arcinfo,

Arcview) and Remote Sensing

Seminars / Workshops/ Conferences :

2017 10th Asia GIS Conference Hong Kong

2014 NECTEC Annual Conference & Exhibitions 2014 Bangkok, Thailand

17 September 2014

2014 35th Asian Conference on Remote Sensing Nay Pyi Taw, Myanmar

27-30 October 2014

2013 How people learn: A cognitive science perspective: MSU, USA. 26 April 2013

2010 Effective, Powerful, and Healthy Public Speaking and MSU, USA. Presenting: 29 January 2010

2009 Applied Spatial Analysis-Introduction and Workshop: MSU, USA. 23 October 2009

2008 Navigating the PhD-Part 1: Demystifying the Dissertation; Personal Management Forming Committees, Working with Committees & Comprehensive Exams: 16 January 2008 MSU, USA.

2008 Google Earth Making it Clear the Importance of Transparency: 4 December 2008 MSU, USA.

2008 Endnote Web: 22 October 2008

2008 Planning for a Sustainable Career: for Graduate Student Professional Career: 27 September 2008 MSU, USA. to

2008 Fast Track Library Search: September 2008 MSU, USA.

2007 Asia-Pacific Regional Space Agency Forum (APRSAF-14) "Space for Human Empowerment" Bangalore, India

2007 4th International Conference on e-Learning For Knowledge-Based Society Bangkok, Thailand

2007 The Forth Asian Oceania Geosciences Society Assembly (AOGS Meeting) Bangkok, Thailand

2007 The Seminar on Pilot Project on ALOS Data Utilization Bangkok, Thailand

2007 Pilot Project: Cartography Bangkok, Thailand

2006 The 11st Thai: GIS User Conference 19 December 2006 Bangkok, Thailand

2006 The 5th International Syposium on New Technologies for Urban Safety of Mega Cities in Asia (USMCA 2006) 16-17 November 2006 Phuket, Thailand

2006 International Conference on Space Technology and Chonburi, Thailand Geo

informatics 2006: 5-8 November 2006

2006 Map Asia 2006 Bangkok, Thailand

29 August – 1 September 2006

2006 The 2006 HCMR Congress in Tokyo Tokyo, Japan

19-20 June 2006

2006 Thailand Metadata Standard Bangkok, Thailand

6 June 2006

2005 Quick Bird End USER Conference 2005 Bangkok, Thailand

19 July 2005

2005 Application of Geo-informatics to Sustainable Bangkok, Thailand Management for Forest Natural Resource Conservation

18 July 2005

2004 National Conference on Mapping and Geo-informatics Chiangmai, Thailand

The 25th Asian Conference on Remote Sensing (ACRS)

22-26 November 2004

2004 International Conference on e-Learning for the Bangkok, Thailand

Knowledge-based Society

4-5 August 2004

2004 Encouragement of e-Learning Development Bangkok, Thailand

25-26 May 2004

Research Project:

2014 -2016 Southeast Asia Climate Change Research Network: SACRN. Project Title: **Investigating land-ocean-atmospheric interaction processes and mechanisms to enhance**

understanding of climate variability and impacts in tropical Southeast Asia; LOAI. Under The Thailand Research Fund (TRF). Respond for Task B. Land use, canopy dynamics and their relationship with CO2 and energy fluxes: Subtask B1. Land use and land cover change, and spatio-temporal variations of vegetation phenology in response to climate variation.

Publications:

2018 Rungnapa Kaewthongrach, Phan Kieu Diem, Amnat Chidthaisong, Tanita Suepa, Montri Sanwangsri, Phongthep Hanpattanakit, Pariwate Varnkovida.

Detecting the El Niño induced changes in Phenology of a Secondary Dry

Dipterocarp Forest by using Remote Sensing. E-Proceeding of Sirindhorn

Conference on Geoinformaics 2018 in Bangkok, Thailand, February 1-2, 2018

2017 Messina, J.P. Suepa, T., Snapp, S., Olson, J.M., Nejadhashemi, A.P., Murray,

S., Moore, N., Frake, A.N., Fan, P., and U. Adhikari. 2017. **Food System Resilience and Sustainability in Cambodia**. International Journal of Applied Geospatial Research (IJAGR). 8:3 Note 4.

2016 S Narut, P Petchprayoon, S Lawavirotwong, T Suapa, S Skawsang. **"Fifteen**

Years of Warming on the Land Surface of Thailand" from MODIS Surface Temperature Observations". The 36th INCA International Congress during 9-11th , November 2016. India.

2016 Tanita Suepa, Jiaguo Qi, Siam Lawawirojwong, and Joseph P. Messina. **"Understanding Spatial-temporal Variation of Vegetation Phenology and**

Rainfall Seasonality in Southeast Asia". Environmental Research, Vol 147,

May 2016.PMID 26922262 DOI: 10.1016/j.envres.2016.02.005

2014 Linda N. Novitski, Peter C. Esselman, Jiaguo Qi , Siam Lawawirojwong,

Tanita Suepa and R. Jan Stevenson. **"Estimating Chlorophyll in The Great Lakes with MODIS and LANDSAT Boosted Regression Tree Algorithms".** (Review Process)

2014 Lawawirojwong S, Suepa T, Qi J. **Evaluation of Uncertainty in Classification**

Accuracy. 35th Asian Conference on Remote Sensing 2014, Acrs 2014: Sensing For Reintegration of Societies.

2014 Tanita Suepa. **"How Can We Know Climate Change from Satellite Images?".** ISPRS Newsletter, January 2014.

2013 Suepa T, Qi J, Lawawirojwong S. **Integrations Remote Sensing Mapping with the Environmental Model to Quantify Emissions from Rice Paddies in Thailand**. 2013 2nd International Conference on Agro-Geoinformatics:

Information for Sustainable Agriculture, Agro-Geoinformatics 2013. 42-47.

IEEE DOI: 10.1109/Argo-Geoinformatics.2013.6621876

2013 Lawawirojwong S, Qi J, Suepa T. **Supervised self-organizing Map with Classification Uncertainty**. 2013 2nd International Conference on AgroGeoinformatics: Information for Sustainable Agriculture, Agro-Geoinformatics

2013. 56-60. DOI: 10.1109/Argo-Geoinformatics.2013.6621879

2010 S. Lawawirojwong, T. Suepa, G. Cao, J. Qi, and R. Groop. **"Assessing Corn and Soybeans Production from 2001–2009 in U.S."**

2010 J. Qi, S. Lawawirojwong, T. Suepa, J. van Ravensway, Y. Inoue, C. Navanugraha, and N. Wiangwang. **"Remote Sensing for Ecological Change Analysis in Southeast Asia"** *Project report, 2010*.

2007 GISTDA. **Principle of Geo-Informatics Technology**. Bangkok: Funny Publishing.

2005 Tanita Suepa. **Geo-Informatics Technology for Local Administration Development**. Thai Local Journal, Vol1, No7, May, 2005. Thailand.

2004 e-Learning subject **"Remote Sensing Technology" and "Geographic Information System (GIS)"** Online www.stkc.go.th.

Presentations:

2017 Tanita Suepa. **GISTDA and GOFC-GOLD Collaboration in EOs Trainings and Networks Strengthening.** 2017 GOFC-GOLD Regional Networks Summit. 13-16 September

2017. Tbilisi, Georgia.

2016 Tanita Suepa. **Geo-Informatics and Space Technology Applications and Solutions.** 21-29 July 2016. Department of Geographical Sciences, University of Maryland, USA.

2016 Tanita Suepa. **GISTDA Roles in Space Technology and Geo-informatics Technology Transfer.** 21-29 July 2016. International START, USA.

2013 Tanita Suepa, Siam Lawawirojwong, Jiaguo Qi. **Spatio-temporal Variation of Vegetation Phenology in Response to Climate Change in Southeast Asia.**

Food Systems Innovation in the Southeast Asia Region Meeting under Global Center for Food Systems Innovation (GCFSI). 16-20 December 2013. The Energy Resources Institute of India (TERI), New Delhi, India.

2013 Tanita Suepa, Jiaguo Qi, Siam Lawawirojwong. **Integrations Remote Sensing**

Mapping with the Environmental Model to Quantify Emissions from Rice Paddies in Thailand. 2013 The second International Conference on AgroGeoinformatics Conference. 12-16 August 2013. Fairfax, Virginia, USA.

2013 Tanita Suepa, Jiaguo Qi, Siam Lawawirojwong. **Response of Seasonal**

Vegetation Dynamics to Climatic Variations in Southeast Asia. Global

Center for Food Systems Innovation (A USAID Higher Education Solutions Network Development Lab). 21 March 2013. Michigan State University, Michigan, USA.

2012 Tanita Suepa, Jiaguo Qi, Siam Lawawirojwong. **Understanding Spatialtemporal Variation of Vegetation Phenology and Rainfall Seasonality in Southeast Asia.** Phenology 2012 Conference. 10-13 September 2012. The University of Wisconsin-Milwaukee, Wisconsin, USA.

2012 Tanita Suepa, Jiaguo Qi, Siam Lawawirojwong. **Response of Seasonal**

Vegetation Dynamics to Climatic Variations in Southeast Asia. Graduate Academic Conference (GAC) 2012. 30 March 2012, Michigan State University, Michigan, USA.

2012 Tanita Suepa, Jiaguo Qi, Siam Lawawirojwong. **Response of Seasonal**

Vegetation Dynamics to Climatic Variations in Southeast Asia. 2012

Association of American Geographers Annual Meeting (AAG). 24 - 28 February 2012, New York,USA.

2010 Tanita Suepa, Jiaguo Qi, Siam Lawawirojwong. **Satellite Time-series Data for Vegetation Phenology Detection in South East Asia**. 2010 Association of American Geographers Annual Meeting (AAG). 14 – 18 April 2010, Washington, DC, USA.

2007 Tanita Suepa. **Space Education and Awareness in Thailand**. Asia-Pacific Regional Space Agency Forum (APRSAF-14) "Space for Human Empowerment". 21 November 2007. Bangalore, India.

2006 Tanita Suepa. **Human-Chicken Multi-relationship Research (HCMR):**

Geography Group. The 2006 HCMR Congress in Tokyo, June 2006. Japan.

2004 Tanita Suepa. **Capacity Building for Geo-Informatics Technology and Applications**. The 25th Asian Conference on Remote Sensing, November 2004. Thailand.

Awards and Funding:

2013 **Travel Funding** (for conference), from Graduate School, College of Social Science, and Department of Geography, Michigan State University

2012 **Student Scholarship** for Phenology 2012 Conference, in support of travel funding to the conference

2012 **The Graduate School Research Enhancement Award**, in support of research activities and participate in conference

2012 **The Graduate School Dissertation Completion Fellowship**, in support of students Ph.D. Dissertation completion and graduate in a timely manner.

2012 **Graduate Office Fellowships (GOF)** in support of summer research activities.

2012 **Kenneth E. and Marie J. Corey Research Enhancement Award**, supporting research projects

2012 **The Shao-Chang Lee Best Paper Competition 2012** on an Asian topic

Tanita Suepa and Siam Lawawirojwong. *"Agricultural Vulnerability to Climate Change and Its Impact in Southeast Asia"*

2012 **Travel Funding** (for conference), from Graduate School, College of Social Science, and Department of Geography, Michigan State University

2010 **Travel Funding** (for conference), from Graduate School, College of Social Science, and Department of Geography, Michigan State University

Grants and Contracts:

2008 A Scholarship form Royal Thai Government, Ministry of Science and Technology, for Ph.D. Program in Michigan State University

Special Lecturers at Universities:

2015-Present Panyapiwat Institute of Management, Faculty of Innovative Agricultural Management "Geo-Informatics Technology" for Undergraduate Student 2014-Present Chulalongkorn University, Faculty of Arts, Department of Geography,

"Principles of Cartography" for Undergraduate Student

2008 King Mongkut's University of Technology Thonburi. School of Energy,

Environment and Materials. "Geo-Informatics Technology". for Graduate Student

2007 Burapha University. Faculty of Humanities and Social Science, Department of Geography. Master of Science Program in Geographical Technology. "Advanced Geographic Information System"

Lecturers:

2017 Lecture in **"Geo-Informatics Technology"** for CU-GISTDA Fieldwork on

Big Data for Disaster Management, Thailand

Lecture in **"Overview of Geo-Informatics Technology" and "Basic of Remote Sensing Technology and Agricultural Applications"** for Comprehensive

Training to Enhance Rice Productivity in the Mekong Region, Thailand

Lecture in **"Satellite Data Search and Download (Optical/Radar Data)"** for Next Generation Regional Satellites and Modelling Techniques for Integrated Water Management (Part II) for Myanmar Organization in Myanmar

2016 Lecture in **"Geographic Visualization"** for Office of Air and Noise Quality Management, BMA

Lecture in **"Geo-Informatics Technology"** for CU-GISTDA Fieldwork on Big Data for Disaster Management, Thailand

Lecture in **"Space Technology Applications for Drought Monitoring",** UNESCAP, Myanmar

Lecture in **"Geo-Informatics Technology"** for 2016 GOFC- GOLD Data Initiative - Advanced Training in Earth Observations and Applications, International START, Thailand

2015 Lecture in **"Preparedness Planning and Risk Perception and Geo-Informatics Technology for Disaster Management"** Opportunities and Challenges of Using the Next Generation Regional Satellites and Modeling Techniques for Water Management Refresher Course, University of Yangon, Myanmar

Lecture in **"Geo-Informatics Technology for Defense and Intelligence Applications"** for Royal Thai Survey Department, Military Security School, and Royal Thai Army

Lecture in **"Basic of GIS and its Applications"** Department of Community Development

Lecture in **"GIS and One Map"** for Ministry of Natural Resources and Environment

2003- Present Lecture in **"Geo-Informatics Technology, Remote Sensing, GIS, Cartography"**

Geo-Informatics and Space Technology Development Agency, Thailand

Professional Societies:

2013	Gamma Theta Upsilon (GTU): The International Geographic Honor Society Recognizing Geography's Next Generation of Leaders
2009	Member of Association of American Geographers (AAG)
2005	Member of the Remote Sensing and GIS Association of Thailand (RESGAT)
1998	Member of Urban Planning Association of Thailand

4. CV - Treavor

Treavor H. Boyer, Ph.D.

Associate Professor of Environmental Engineering

School of Sustainable Engineering and the Built Environment (SSEBE)

Arizona State University (ASU)

PO Box 873005, Tempe, AZ 85287-3005

Phone: 352-846-3351, Email: thboyer@ufl.edu

EDUCATION

Ph.D., Environmental Sciences and Engineering, University of North Carolina at Chapel Hill, 2008

Dissertation: Removal of Natural Organic Matter by Anion Exchange: Multiscale Experimentation and Mathematical Modeling Dissertation Advisor: Philip Singer, Ph.D.

M.S., Environmental Engineering, University of North Carolina at Chapel Hill, 2004 Thesis: Bench-Scale Testing of a Magnetic Ion Exchange Resin for Removal of Natural

Organic Material

Thesis Advisor: Philip Singer, Ph.D.

B.S., Chemical Engineering, University of Florida, 2002

ACADEMIC EXPERIENCE

Associate Professor (with tenure), School of Sustainable Engineering and the Built Environment, Arizona State University, July 2016–present

Specialty Area Coordinator, Environmental Engineering, School of Sustainable Engineering and the Built Environment, Arizona State University, July 2018–present

Program Chair, Environmental Engineering Undergraduate Program, School of Sustainable Engineering and the Built Environment, Arizona State University, July 2016–present

Associate Professor (with tenure), Department of Environmental Engineering Sciences, University of Florida, August 2014–July 2016

Assistant Professor (tenure-accruing), Department of Environmental Engineering Sciences,

University of Florida, August 2008–2014

PROFESSIONAL LICENSURE

Engineering Intern, North Carolina, 2007

AREAS OF EXPERTISE Research

I am interested in water sustainability, which spans drinking water, wastewater, and natural aquatic environments. Specifically, my research takes a systems thinking approach to water quality and treatment that considers global drivers such as urbanization, climate change, biogeochemical cycles, sustainable engineering, and disruptive innovation. Examples include coupling laboratory experiments and life cycle assessment to evaluate the sustainability of novel approaches to drinking water treatment (e.g., innovative ion exchange treatment and regeneration) and wastewater management (e.g., urine source separation), and using multi-scale testing (laboratory, pilot, and field experiments) to inform the design of urine source separation and treatment systems considering urine collection, nutrient recovery, pharmaceutical removal, and beneficial use. My research on wastewater management has focused on the new field of urine source separation and treatment, which has been proposed as an alternative to conventional wastewater management because of its potential to conserve water and energy, recover nutrients for beneficial use, and protect ecological and human health from pharmaceutical micropollutants. My NSF CAREER award, "Sustainable Urine Processes through integration of Education and Research (SUPER)," is the centerpiece for numerous research activities on urine source separation that seek to fill key gaps in knowledge. Furthermore, I direct the most comprehensive research program in the U.S. that is investigating urine source separation, with research activities spanning urine chemistry, urinal and toilet function, nutrient recovery, pharmaceutical removal, life cycle impacts, fertilizer effectiveness and agricultural yield, and public perceptions. My research experiences have convinced me that a paradigm shift is needed that focuses on resource recovery (e.g., water, energy, nutrients, metals) and holistic management of resources and contaminants. To advance this paradigm shift, a critical question that remains to be answered is at what spatial scale do we implement novel technologies and engineering solutions? For example, do we take a fully centralized approach such as being proposed for direct potable reuse or individual decentralized systems such as proposed for urine source separation? Accordingly, my research

vision over the next 5 years is to build a research program to answer the question of technology implementation scale, and other pressing challenges, through a combination of use-inspired research, modeling and data science approaches, and testbed installations. Specifically, my students and I are building a urine diversion testbed (as part of a larger intelligent water and wastewater building testbed) to evaluate different processes for urine collection and treatment. This will also generate primary data for calibrating new process models and life cycle assessment models. Together, the testbed installation, process models, and life cycle models will provide new insights to advance the implementation of urine source separation and further the paradigm shift of resource recovery.

Teaching

My teaching philosophy is to balance fundamental principles with real-world topics of interest to students. It is critical for students to learn the fundamental principles that govern engineering processes such as mass and energy balances. I impress on students that they can solve a wide range of problems, even problems they have never seen before, if they understand the relevant fundamental principles. However, because a lecture solely on theoretical topics can become boring, I use real-world examples—e.g., reuse of treated wastewater for drinking water—to generate interest in a topic. I often use the three pillars of sustainability as a crosscutting theme to tie together engineering fundamentals and real-world applications. From my experience, when students can see the big picture, they are motivated and excited to learn. I further support students in their learning by helping them understand how they learn. Specifically, I use adaptations of Bloom's taxonomy to illustrate the learning process in the context of knowledge and cognitive process dimensions. I have experience teaching lecture and laboratory courses that span fundamental concepts to engineering design. My teaching expertise includes environmental chemistry, thermodynamics, process engineering, and physical-chemical processes, and I have experience teaching sustainability, environmental microbiology, and water treatment design.

HONORS AND AWARDS

- AEESP Distinguished Service Award, Conference Chair for 2019 AEESP Research and Education Conference, 2019
- American Water Works Association 2016 Division Best Paper Award, Engineering & Construction Division for "Case Study and Life Cycle Assessment of a Coastal Utility Facing Saltwater Intrusion Daniella Saetta, Stephanie K.L. Ishii, William E. Pine, III, and Treavor H. Boyer"
- Best Paper Award, Florida Section American Water Works Association Fall Conference, 2013, 2014, and 2015
- ASCE Sustainable Development Award, Faculty mentor, 2015
- UF Entrepreneurship Faculty Fellow, 2015–2016
- 2014 MWH/AEESP Master Thesis Award 1st Place, Faculty advisor, 2014
- 2014 New Faculty Research Award, American Society for Engineering Education Southeastern Section, 2014
- Excellence Award for Assistant Professors, University-level and College-level awardee, University of Florida, 2013–2014
- John J. McCreary Outstanding Faculty Award, Department of Environmental Engineering Sciences, University of Florida, 2013–2014, 2009–2010
- Faculty Mentor Research Award, Department of Environmental Engineering Sciences, University of Florida, 2012–2013
- Student Best Paper Award, faculty advisor, American Water Works Association Water Quality Technology Conference, 2010, 2009
- 2nd place Best Doctoral Dissertation Award, American Water Works Association, 2009
- U.S. EPA STAR Graduate Fellowship, 2006–2008
- Abel Wolman Doctoral Fellowship, American Water Works Association, 2006–2008

PUBLICATIONS AND PRESENTATIONS

Corresponding Author, (*)

ASU: Ph.D. Student, bold font; Master's Student, underline; Undergraduate Student, ($^{\#}$);

Other/Visiting Undergraduate Student, ($^{\infty}$); Postdoctoral Researcher, ($^{\times}$); High School Student, (‡); Equal Contributions, ($^{+}$, if not equal include % of participation); Invited Paper, in brackets, []; Open Access Article, in brackets, {}

UF: Ph.D. Student, bold and italics font; Master's Student, underline and italics font; Undergraduate Student, ($^{\#}$) and italics font

Refereed Journal Articles

1. Boyer, T.H.*, Singer, P.C., 2005. Bench-scale testing of a magnetic ion exchange resin for removal of disinfection by-product precursors. *Water Research*, 39(7), 1265–1276. http://dx.doi.org/10.1016/j.watres.2005.01.002

2. Boyer, T.H.*, Singer, P.C., 2006. A pilot-scale evaluation of magnetic ion exchange treatment for removal of natural organic material and inorganic anions. *Water Research*, 40(15), 2865– 2876. http://dx.doi.org/10.1016/j.watres.2006.05.022

3. Boyer, T.H.*, Singer, P.C., 2008. Stoichiometry of removal of natural organic matter by ion exchange. *Environmental Science & Technology*, 42(2), 608–613. http://dx.doi.org/10.1021/es071940n

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11. Apell, J.N.*, Boyer, T.H., Kimura, K., 2011. Combined ion exchange (CIX) as a pre-treatment for high-pressure membrane systems. *Proceedings of the 2011 Membrane Technology Conference & Exposition*, Long Beach, California, 28–31 March 2011, 6 pp.

12. Boyer, T.H.*, 2011. Robustness of MIEX treatment with respect to seasonal variations in water quality. *Proceedings of the American Water Works Association 2011 Water Quality Technology Conference & Exposition*, Phoenix, Arizona, 13–17 November 2011, 4 pp.

13. Boyer, T.H.*, *Kronebusch (Willison), H.*[#], 2012. Systems thinking about corrosion control: Secondary effects of anion exchange. *Proceedings of the American Water Works Association 2012 Water Quality Technology Conference & Exposition*, Toronto, Canada, 4–8 November 2012, 4 pp.

14. Boyer, T.H.*, *Ged, E.*, Motz, L., Kurki-Fox, J., Chadik, P., Martin, J., Frank, K., Palomino, P., Hill, C., 2013. Impact of Sea-Level Rise on Saltwater Intrusion and Formation of Brominated Disinfection Byproducts. *Proceedings of the American Water Works Association 2013 Water Quality Technology Conference*, Long Beach, California, 3–7 November 2013, 4 pp.

15. Boyer, T.H.*, ***Indarawis, K.***, *Deavenport, S.*, *Apell, J.*, 2013. Simultaneous DOC and hardness removal using combined ion exchange. *Proceedings of the Florida Section American Water Works Association Fall 2013 Conference*, ChampionsGate, Florida, 1–5 December 2013, 9 pp.

16. Boyer, T.H.*, *Maul, G.*, Zhang, Q., Kim, Y., 2013. Ion-Exchange Regeneration Efficiency and Life Cycle Environmental Impacts. *Proceedings of the American Water Works Association 2013 Water Quality Technology Conference*, Long Beach, California, 3–7

    November 2013, 5 pp.

17. Boyer, T.H.*, *O'Neal, J.A.*, 2013. Where to recover phosphorus: From source separated urine to central wastewater plant. *Proceedings of the WEF/IWA Nutrient Removal and Recovery 2013 Conference: Trends in Resource Recovery and Use*, Vancouver, British Columbia, Canada, 28–31 July 2013, 7 pp.

18. *Deavenport (Comstock), S.E.H.**, Boyer, T.H., *Graf, K.C.*[#], 2013. Treatment of nanofiltration and reverse osmosis concentrates: Systematic study of coagulation, softening and anion exchange. *Proceedings of the 2013 AWWA/AMTA Membrane Technology Conference & Exposition*, San Antonio, Texas, 25–28 February 2013, American Water Works Association, Denver, CO, 14 pp.

19. ***Ishii, S.K.L.****, Boyer, T.H., 2013. Impact of urine source separation on wastewater treatment and sustainable initiatives at select U.S. universities: A triple bottom line evaluation. *Proceedings of the WEF/IWA Nutrient Removal and Recovery 2013 Conference: Trends in Resource Recovery and Use*, Vancouver, British Columbia, Canada, 28–31 July 2013, 9 pp.

20. *Landry, K.*[#,]*, *Sendrowski, A.*[#], Boyer, T.H., 2013. Ion exchange applications to source separated urine: Pharmaceutical separation and phosphorus recovery. *Proceedings of the WEF/IWA Nutrient Removal and Recovery 2013 Conference: Trends in Resource Recovery and Use*, Vancouver, British Columbia, Canada, 28–31 July 2013, 14 pp.

21. *Saetta, D.*[#]*, ***Ishii, S.K.L.***, Ged, E., ***Indarawis, K.***, Pine, W.E., Boyer, T.H., 2013. Impact of Sea-Level Rise on Saltwater Intrusion and Formation of Brominated Disinfection Byproducts. *Proceedings of the American Water Works Association 2013 Water Quality Technology Conference*, Long Beach, California, 3–7 November 2013, 9 pp.

22. Boyer, T.H.*, Ged, E., 2014. Predictive capability of disinfection byproducts models. *Proceedings of the American Water Works Association 2014 Water Quality Technology Conference*, New Orleans, Louisiana, 16–20 November 2014, 3 pp.

23. Boyer, T.H.*, *Cribbs, K.*[#], 2014. Effect of Urine Dilution on Ammonium Sorption using Natural Zeolites. *WEFTEC 2014 Conference Proceedings*, New Orleans, Louisiana, 27 September – 1 October 2014, 7 pp.

24. ***Foster, J.****, ***Hu, Y.***, Boyer, T.H., 2014. Multi-Contaminant Removal by Combined Ion Exchange Using Bicarbonate and Potassium as Mobile Counter Ion. *Proceedings of the American Water Works Association 2014 Water Quality Technology Conference*, New Orleans, Louisiana, 16–20 November 2014, 5 pp.

25. ***Hu, Y.****, Boyer, T.H., 2014. Novel use Bicarbonate-form Resin on Chromate Removal: Selectivity Study. *Proceedings of the American Water Works Association 2014 Water Quality Technology Conference*, New Orleans, Louisiana, 16–20 November 2014, 9 pp.

26. ***Ishii, S.K.L.****, Boyer, T.H., 2014. Is all water conservation created equal? *Proceedings of the American Water Works Association 2014 Water Quality Technology Conference*, New Orleans, Louisiana, 16–20 November 2014, 11 pp.

27. Boyer, T.H.*, ***Ishii, S.K.L.***, 2015. Life cycle comparison of urine source separation and conventional wastewater treatment: Focus on nutrient management. *WEFTEC 2015 Conference Proceedings*, Chicago, Illinois, 26–30 September 2015, 3 pp.

28. ***Foster, J.****, Boyer, T.H., 2015. Simultaneous removal of multiple drinking water contaminants using combined ion exchange treatment and regeneration. *Proceedings of the American Water Works Association 2015 Water Quality Technology Conference*, Salt Lake City, Utah, 15–19 November 2015, 6 pp.

29. ***Hu Y.****, Boyer, T.H., 2015. Impact of regeneration efficiency on common drinking water contaminants removal by ion exchange in continuous stirred tank reactor. *Proceedings of the American Water Works*

Association 2015 Water Quality Technology Conference, Salt Lake City, Utah, 15–19 November 2015, 5 pp.

30. ***Foster, J.****, Mahady, C., Boyer, T.H., 2016. Pilot scale evaluation of combined ion exchange for simultaneous removal of DOC and hardness. *Proceedings of the American Water Works Association 2016 Water Quality Technology Conference*, Indianapolis, IN, 13–17 November 2016, 7 pp.

31. ***Hu Y.****, Boyer, T.H., 2016. Pilot study of completed mixed flow reactor type ion exchange process for natural organic matter removal. *Proceedings of the American Water Works Association 2016 Water Quality Technology Conference*, Indianapolis, Indiana, 13–17 November 2016, 5 pp.

32. Boyer, T.H.*, Hu, Y., Foster, J., Ness, A., 2018. Alternative Ion Exchange using Bicarbonate and Potassium Counterions for Multi-Contaminant Removal. *Proceedings of the American Water Works Association 2018 Water Quality Technology Conference*, Toronto, Canada, 11– 15, November 2018, 3 pp.

33. Boyer, T.H.*, Ishii, S., Landry, K, 2018. What is urine diversion and how might it impact water systems. *Proceedings of the American Water Works Association 2018 Water Quality Technology Conference*, Toronto, Canada, 11–15, November 2019, 3 pp.

Other Publications

1. *O'Neal, J.A.**, *Landry, K.A.*[#], *Cribbs, K.L.*[#], Boyer, T.H., 2014. Building-level treatment and nutrient recovery from source-separated urine by ion-exchange. *Florida Watershed Journal*, 10 January 2014.

2. *Zinckgraf, B.*[#,]*, *Liebnitzky, C.*[#], Kruse, J.K., Boyer, T.H., 2014. Nutrient recovery potential from stadium wastewater for use as turfgrass fertilizer. *University of Florida Journal of Undergraduate Research*, 15(2), 1–4.

3. Boyer, T.H.*, ***Jagtap, N.***, **Ray, H.**, **Saetta, D.**, ***Solanki, A.***, 2018. The benefits of urine diversion are real – water conservation, resource recovery, and pharmaceutical sequestration. *The Kachina News*, Spring 2018, 38–40.

Invited Conference Presentations

1. Boyer, T.H., 2006. A multifaceted survey of MIEX treatment. Presented at *SCAWWA Watershed Symposium and Drinking Water Technology Forum*, Charleston, South Carolina, 14–15 September 2006.

2. Boyer, T.H., 2010. Floating Island Treatment Train Project. Presented at *American Water Resources Association Florida Section Bi-Monthly Meeting*, Jacksonville, Florida, 22 January 2010.

3. Boyer, T.H., 2011. The Lasting Impact of Singer and Bilyk's "Enhanced coagulation using a magnetic ion exchange resin." Presented at Retirement Symposium for Philip Singer, Department of Environmental Sciences and Engineering, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, 15 April 2011.

4. Boyer, T.H., 2011. Global Drivers in Aquatic Chemistry for Water Resource Technology. Presented at *21st Annual Southwest Florida Water Resource Conference*, Naples, Florida, 18 November 2011.

5. Boyer, T.H., 2012. Multiple Risks of Saltwater Intrusion to Drinking Water Supplies. Presented at *National Ground Water Association Focus Conference on Gulf Coast Groundwater Issues*, Baton Rouge, Louisiana, 16–17 October 2012.

6. Boyer, T.H., 2012. Innovative Ion Exchange for Multicontaminant Treatment and Regeneration. Presented at *National Ground Water Association Focus Conference on Gulf Coast Groundwater Issues*, Baton Rouge, Louisiana, 16–17 October 2012.

7. Boyer, T.H., 2013. Ion Exchange Treatment. Presented at *American Water Works Association Annual Conference & Exposition*, Denver, Colorado, 9–13 June 2013.

8. Boyer, T.H., 2013. Behavior of Reoccurring PARAFAC Components in Dissolved Organic Matter Fluorophores in Natural and Engineered Systems. Presented at *International*

   Workshop on Organic Matter Spectroscopy 2013 (WOMS 2013): Organic Matter Characterization Using Spectroscopic Techniques Coupled with Advanced Signal Processing Techniques, La Garde City, France, 16–19 July 2013.

9. Boyer, T.H., Zhang, Q., 2013. Small, Safe, Sustainable (S3) Public Water Systems through Innovative Ion Exchange. Presented at *Innovative Small Water Systems Progress Review*

   Meeting/Webinar, EPA's National Center for Environmental Research, Cincinnati, Ohio, 13 August 2013.

10. Boyer, T.H., 2014. Invited Discussion Leader at *Environmental Sciences: Water Gordon Research Seminar*, Holderness School, Holderness, New Hampshire, 21–22 June 2014.

11. Boyer, T.H., Zhang, Q., 2014. Small, Safe, Sustainable (S3) Public Water Systems through Innovative Ion Exchange. Presented at *Innovative Small Water Systems Progress Review Meeting/Webinar*, Louisiana State University, New Orleans, Louisiana, 2 October 2014.

12. Boyer, T.H., 2015. Pursuing an academic career in the water industry. Presented at *American Water Works Association Annual Conference & Exposition*, Anaheim, California, 7–10 June 2015.

13. Boyer, T.H., 2017. Life Cycle Comparison of Urine Source Separation and Centralized Wastewater Treatment. Presented at *AZ Water Association Building our Sustainable Water Future*, Tempe, Arizona, 10 January 2017.

14. Boyer, T.H., 2018. Pilot-Scale Evaluation of Bicarbonate-Form Anion Exchange for Small Systems. Presented at *255th American Chemical Society National Meeting & Exposition*, New Orleans, Louisiana, 18–22 March 2018.

15. Boyer, T., Saetta, D., Ray, H., 2018. Smart nonwatery urinals for improved water conservation and enhanced nutrient recovery. Presented at WEF Nutrient Removal and Recovery Conference, Raleigh, North Carolina, 18–21 June 2018.

16. Boyer, T.H., 2019. The concept of smart water system. Presented at AZ Water Research Symposium: Smart Water Systems of Today – Cyber Innovations in Water Systems, Tempe, Arizona, 8 January 2019.

Invited Talks and Webinars

1. Boyer, T.H., 2008. Removal of Natural Organic Matter by Ion Exchange: Unifying Considerations. Presented to Jones Edmunds & Associates consulting engineering firm, Gainesville, Florida, 18 December 2008.

2. Boyer, T.H., 2009. Role of Natural Organic Matter in Physicochemical Processes. Presented at Florida Department of Environmental Protection, Central District Office, Orlando, Florida, 6 March 2009.

3. Boyer, T.H., 2009. Lake Jesup Physical-Chemical Treatment Study: Phosphorus Removal and Natural Organic Matter Profiling. Presented at St. Johns River Water Management District, Palatka, Florida, 22 April 2009.

4. Boyer, T.H., 2009. Phosphorus Removal and Natural Organic Matter Profiling. Presented at Southwest Florida Water Management District, Brooksville, Florida, 11 May 2009.

5. Boyer, T.H., 2010. Environmental Applications of Ion Exchange Technology. Presented at *Environmental Research Interdisciplinary Colloquium*, University of South Florida, Tampa, Florida, 17 February 2010.

6. Boyer, T.H., 2011. The Lasting Impact of Singer and Bilyk's "Enhanced coagulation using a magnetic ion exchange resin." Webinar presented to Hazen and Sawyer consulting engineering firm, 10 May 2011.

7. Boyer, T.H., 2011. St. Johns River as Case Study for Alternative Water Sources: Social and Technical Challenges. Presented at St. Johns River Water Management District, Palatka, Florida, 12 May 2011.

8. Boyer, T.H., 2011. Ion Exchange Strategies Along the Water Lifecycle. Presented at *Environmental & Water Resources Graduate Seminar*, Department of Civil and Environmental Engineering, University of South Florida, Tampa, Florida, 12 September 2011.

9. Boyer, T.H., 2011. WaterWeUpTo: UF – Brown and Caldwell Partnership Opportunities. Presented to Brown and Caldwell consulting engineering firm, Tampa, Florida, 14 December 2011.

10. Boyer, T.H., 2012. Potential for Phosphorus Recovery and Beneficial Reuse. Presented at *FSAWWA Region XI Lunch & Learn*, Gainesville, Florida, 20 April 2012.

11. Boyer, T.H., 2012. Sustainable Urine Process through Integration of Education and Research (SUPER). Presented at *Warren Lecture*, Department of Civil Engineering, University of Minnesota, Minneapolis, Minnesota, 12 October 2012.

12. Boyer, T.H., 2012. Sustainable Urine Process through Integration of Education and Research (SUPER). Presented at *School of Civil and Environmental Engineering Seminar Series*, Georgia Institute of Technology, Atlanta, Georgia, 5 December 2012.

13. Boyer, T.H., 2013. Sustainable Urine Process through Integration of Education and Research (SUPER). Presented at St. Johns River Water Management District, Palatka, Florida, 14 February 2013.

14. Boyer, T.H., 2013. Ion Exchange Treatment. Presented webinar to *McKim & Creed* offices in Florida and North Carolina, 19 November 2013.

15. Boyer, T.H., 2014. Urine Source Separation and Treatment: Opportunities and Challenges. Presented at *Environmental and Water Resources Graduate Seminar*, Department of Civil and Environmental Engineering, University of South Florida, Tampa, Florida, 21 February 2014.

16. Boyer, T.H., 2014. Treating Urine as a Separate Waste Stream: Opportunities for Phosphorus Recovery, Pharmaceutical Removal, and Water Conservation. Presented at *Environmental Engineering Seminar*, Arizona State University, Tempe, Arizona, 7 October 2014.

17. Boyer, T.H., 2014. Water research at the University of Florida. Presented to *Arcadis Corporation*, Tampa, Florida, 17 December 2014.

18. Boyer, T.H., 2016. Combined Ion Exchange for Removal of Dissolved Organic Carbon and Hardness. Presented to *EPA's Small Drinking Water Systems Webinar Series*, 30 August 2016.

19. Boyer, T.H., 2016. Systems View of Nutrient Management – Nutrient Recovery from Human Urine: Building co-presented with C. Naughton, Q. Zhang, K. Wigginton, and A. Noe-Hays.

    Presented to *EPA's Safe and Sustainable Water Resources Research Program Webinar Series*, 14 December 2016.

20. Boyer. T.H., 2017. Managing Phosphorus at the Source vs. the Sink: Implications for Agriculture, Cities, and Freshwater co-presented with S. Powers and K. Macintosh. Presented to the *Sustainable Phosphorus Alliance Webinar Series*, 16 February 2017.

21. Boyer, T.H., 2018. Opportunities and Challenges for Urine Diversion. Presented at Environmental Engineering Graduate Seminar, University of Colorado Boulder, 14 September 2018.

22. Boyer, T.H., 2018. Opportunities and Challenges for Urine Diversion. Presented at Department of Energy, Environmental & Chemical Engineering Graduate Seminar, Washington University in St. Louis, 28 September 2018.

23. Boyer, T.H., 2018. Opportunities and Challenges for Urine Diversion. Presented at Environmental Engineering Seminar, University of California Davis, 19 February 2019.

Conference Presentations

1. Boyer, T.H., Singer, P.C., Depaz, E. 2004. Bench-scale testing of a magnetic ion exchange resin for removal of natural organic material. Presented at *American Water Works Association Annual Conference & Exposition*, Orlando, Florida, 13–17 June 2004.

2. Boyer, T.H., Singer, P.C., 2005. Continuous-flow pilot-scale testing of a magnetic ion exchange resin for removal of disinfection byproduct precursors. Presented at *American Water Works Association 2005 Water Quality Technology Conference*, Quebec City, Canada, 6–9 November 2005.

3. Boyer, T.H., Singer, P.C., 2006. Sixty-four percent DOC removal from raw drinking water by anion exchange: A case study. Presented at *NC AWWA-WEA 5th Annual Eastern Regional Conference*, New Bern, North Carolina, 2–4 April 2006.

4. Boyer, T.H., Miller, C.T., Singer, P.C., 2006. Modeling macrotransport and microtransport for removal of natural organic matter by anion exchange. Presented at *American Institute of Chemical Engineers Annual Meeting*, San Francisco, California, 12–17 November 2006.

5. Boyer, T.H., Singer, P.C., Aiken, G.R., 2007. Uptake of natural organic matter by anion exchange resins. Presented at *233rd American Chemical Society National Meeting*, Chicago, Illinois, 25–29 March 2007.

6. Boyer, T.H., Singer, P.C., Aiken, G.R., 2007. Stoichiometric removal of disinfection byproduct precursors by ion exchange. Presented at *American Water Works Association 2007 Water Quality Technology Conference*, Charlotte, North Carolina, 4–8 November 2007.

7. Boyer, T.H., Singer, P.C., Miller, C.T., 2008. Application of a MIEX reactor model to evaluate DOC removal. Presented at *American Water Works Association Annual Conference & Exposition*, Atlanta, Georgia, 8–12 June 2008.

8. Boyer, T.H., Singer, P.C., 2008. Removal of Natural Organic Material by a Magnetic Ion Exchange Resin. Presented at *International Water Association World Water Congress*, Vienna, Austria, 7–12 September 2008.

9. Boyer, T.H., Banerjee, P., Persaud, A., Palomino, P., 2009. Comparison of Waste Byproduct

   Materials and Commercial Ion Exchange Resins for Removal of Phosphorus from OrganicRich Surface Water. Poster presented at *2009 AEESP Research and Education Conference*, Iowa City, Iowa, 26–29 July 2009.

10. Boyer, T.H., Persaud, A., Banerjee, P.g, Palomino, P., Brown, M.T., Sindelar, H., Arden, S., 2010. Waste Byproduct Materials for Removal of Phosphorus from Organic-Rich Surface Water. Presented at *239th American Chemical Society National Meeting*, San Francisco, California, 21–25 March 2010.

11. Boyer, T.H., Brown, M.T., Persaud, A., Arden, S., Banerjee, P., Sindelar, H., Palomino, P.,

2010. Floating Island Treatment System (FITS): Phosphorus Removal from Organic-Rich Surface Water. Presented at *Florida Lake Management Society 21st Annual Conference*, Crystal River, Florida, 14–17 June 2010.

12. Boyer, T.H., Walker, K.M., 2010. Studying the Chemistry of Halides and Dissolved Organic Matter in the St. Johns River, FL, USA. Poster presented at *Gordon Research Conference Environmental Sciences: Water*, Plymouth, New Hampshire, 20–25 June 2010.

13. Boyer, T.H., Overdevest, C., Christiansen, L., Walker, K., 2011. The Need for Alternative Drinking Water Supplies: Social and Technical Challenges. Presented at *2011 Association of Environmental Engineering and Science Professors Education and Research Conference*, University of South Florida, Tampa, Florida, 10–12 July 2011.

14. Boyer, T.H., 2011. Robustness of MIEX Treatment with Respect to Seasonal Variations in Water Quality. Presented at *American Water Works Association 2011 Water Quality Technology Conference*, Phoenix, Arizona, 13–17 November 2011.

15. Boyer, T.H., 2012. Potential for Phosphorus Recovery and Beneficial Reuse. Presented at *3rd UF Water Institute Symposium*, University of Florida, Gainesville, Florida, 15–16 February 2012.

16. Boyer, T.H., O'Neal, J., Landry, K., Taylor, K., Reed, A., 2012. Urine Source Separation and Treatment: Challenges and Opportunities. Poster presented at *Gordon Research Conference Environmental Sciences: Water*, Plymouth, New Hampshire, 24–29 June 2012.

17. Boyer, T.H., 2012. Urine Source-Separation and Treatment: Novel Applications of Ion Exchange Materials. Presented at *244th American Chemical Society National Meeting & Exposition*, Philadelphia, Pennsylvania, 19–23 August 2012.

18. Boyer, T.H., Landry, K., Sendrowski, A., O'Neal, J., 2012. Nutrient Recovery from Urine using Selective Ion Exchange. Presented at *85th Annual Water Environment Federation Technical Exhibition and Conference*, New Orleans, Louisiana, 29 September – 3 October 2012.

19. Boyer, T.H., Kronebusch (Willison), H., 2012. Systems Thinking about Corrosion Control: Secondary Effects of Anion Exchange. Presented at *American Water Works Association 2012 Water Quality Technology Conference*, Toronto, Canada, 4–8 November 2012.

20. Boyer, T.H., O'Neal, J.A., 2013. Where to Recover Phosphorus: From Source Separated

    Urine to Central Wastewater Plant. Presented at *WEF/IWA Nutrient Removal and Recovery 2013*

Conference: Trends in Resource Recovery and Use, Vancouver, British Columbia, Canada, 28–31 July 2013.

21. Boyer, T.H., Zhang, Q., 2013. Small, Safe, Sustainable (S3) Public Water Systems through Innovative Ion Exchange. Presented at *3rd International Congress on Sustainability Science & Engineering*, Cincinnati, Ohio, 11–15 August 2013.

22. Boyer, T.H., Maul, G., Zhang, Q., Ostrom, T., 2013. Ion-Exchange Regeneration Efficiency and Life Cycle Environmental Impacts. Presented at *American Water Works Association 2013*

    Water Quality Technology Conference, Long Beach, California, 3–7 November 2013.

23. Boyer, T.H., Ged, E., Motz, L., Kurki-Fox, J., Chadik, P., Martin, J., Frank, K., Palomino, P., Hill, C., 2013. Impact of Sea-Level Rise on Saltwater Intrusion and Formation of Brominated Disinfection Byproducts. Presented at *American Water Works Association 2013 Water Quality Technology Conference*, Long Beach, California, 3–7 November 2013.

24. Boyer, T.H., Ged, E., Motz, L., Chadik, P., Frank, K., Martin, J., 2014. Impact of Sea-Level Rise on Saltwater Intrusion and Formation of Brominated Disinfection Byproducts during Chlorination. Presented at *4th UF Water Institute Symposium*, University of Florida, Gainesville, Florida, 11–12 February 2014.

25. Boyer, T.H., Ged, E., Motz, L., Chadik, P., Frank, K., Martin, J., 2014. Impact of Sea-Level Rise on Saltwater Intrusion and Formation of Brominated Disinfection Byproducts during Chlorination. Poster presented at *Gordon Research Conference Environmental Sciences: Water*, Holderness School, Holderness, New Hampshire, 22–27 June 2014.

26. Boyer, T.H., Ged, E., Motz, L., Chadik, P., Frank, K., Martin, J., 2014. Impact of Sea-Level Rise on Saltwater Intrusion and Formation of Brominated Disinfection Byproducts during Chlorination. Presented at *248th American Chemical Society National Meeting & Exposition*, San Francisco, California, 10–14 August 2014.

27. Boyer, T.H., Cribbs, K. 2014. Effect of Urine Dilution on Ammonium Sorption using Natural Zeolites. Presented at *WEFTEC2014*, New Orleans, Louisiana, 28 September – 1 October 2014.

28. Boyer, T.H., Wu, C.-Y., de Torres, T., Brucat, P., Korolev, M., Crippen, K., 2015. Transforming Freshman Chemistry using Mini-Projects that Incorporate Environmental Engineering Context. Presented at *2015 ASEE-SE Conference*, University of Florida, Gainesville, Florida, 12–14 April 2015.

29. Boyer, T.H., Ged, E., Vincent, D., Motz, L., Chadik, P., Duranceau, S., 2015. Impact of sealevel rise on seawater intrusion and formation of brominated disinfection byproducts during chlorination. Presented at *2015 Association of Environmental Engineering and Science Professors Education and Research Conference*, Yale University, New Haven, Connecticut, 13–16 June 2015.

30. Boyer, T.H., 2015. Urine Source Separation and Treatment: Opportunities and Challenges. Presented at *2015 Association of Environmental Engineering and Science Professors Education and Research Conference*, Yale University, New Haven, Connecticut, 13–16 June 2015.

31. Boyer, T.H., Wu, C.-Y., de Torres, T., Brucat, P., Korolev, M., Crippen, K., 2015. Transforming Freshman Chemistry using Mini-Projects that Incorporate Environmental Engineering Context. Presented at *2015 Association of Environmental Engineering and Science Professors Education and Research Conference*, Yale University, New Haven, Connecticut, 13–16 June 2015.

32. Boyer, T.H., 2015. Adsorption applications for total nutrient recovery from urine. Presented at *250th American Chemical Society National Meeting & Exposition*, Boston, Massachusetts, 16–20 August 2015.

33. Boyer, T.H., Ishii, S.K.L., 2015. LCA of conventional wastewater treatment and urine source separation with struvite precipitation: Focus on nutrient management. Presented at *WEFTEC 2015*, Chicago, Illinois, 26–30 September 2015.

34. Boyer, T.H., 2016. Life cycle assessment framework applied to drinking water treatment and wastewater management. Presented at *5th UF Water Institute Symposium*, University of Florida, Gainesville, Florida, 16–17 February 2016.

35. Boyer, T.H., 2017. Alternative Ion Exchange Using Bicarbonate And Potassium Counterions. Presented at *AWWA 2017 International Symposium on Inorganics*, Detroit, Michigan, 21–22 March 2017.

36. Boyer, T.H., 2017. Life cycle comparison of urine source separation and centralized wastewater treatment. Presented at *253rd American Chemical Society National Meeting & Exposition*, San Francisco, California, 2–6 April 2017.

37. Boyer, T.H., 2017. Life Cycle Comparison of Urine Source Separation and Centralized Wastewater Treatment. Presented at *AZ Water Association 90th Annual Conference & Exhibition*, Phoenix, Arizona, 3–5 May 2017.

38. Boyer, T.H., 2017. Pilot scale evaluation of combined ion exchange for simultaneous removal of multiple drinking water contaminants. Presented at *AEESP 2017 Research and Education Conference*, University of Michigan, Ann Arbor, Michigan, 20–22 June 2017.

39. Boyer, T.H., 2018. Integrated, multi-process approach to total nutrient recovery from stored urine. Presented at *256th ACS National Meeting & Exposition*, Boston, Massachusetts, 19–23 August 2018.

40. Boyer, T.H., 2018. Alternative Ion Exchange using Bicarbonate and Potassium Counterions for Multi-Contaminant Removal. Presented at *AWWA 2018 WQTC*, Toronto, Canada, 11–15 November 2018.

41. Boyer, T.H., 2018. What is urine diversion and how might it impact water systems. Presented at *AWWA 2018 WQTC*, Toronto, Canada, 11–15 November 2018.

42. Boyer, T.H., 2019. Opportunities for building-scale urine diversion and challenges for implementation. Presented at *2019 AEESP Research and Education Conference*, Arizona State University, Tempe, Arizona, 14–16 May 2019.

Presentations at Arizona State University

1. Boyer, T.H., 2016. Guest lecture on phosphorus (P) sustainability in BDE 598, Instructor: Rolf Halden, 7 September 2016.

2. Boyer, T.H., 2016. Life Cycle Comparison of Urine Source Separation and Centralized Wastewater Treatment. Presented at Environmental Engineering Graduate Seminar, School of Sustainable Engineering & the Built Environment, 4 October 2016.

3. Boyer, T.H., 2017. You need more than one good idea. Presented at SSEBE Director's Lecture Series, 4 October 2017.

4. Boyer, T.H., 2017. Snowcap to Tap and Back. Invited speaker at ASU Water Summit 2017, 3 October 2017.

5. Boyer, T.H., 2018. Building-scale urine diversion and treatment. Presented at Biodesign Swette Center, 23 February 2018.

6. Boyer, T.H., 2018. Development of reactive geocomposite for removal of phosphate and nitrate from impacted waters. Presented at CBBG, 21 September 2018.

Presentations at University of Florida

1. Boyer, T.H., 2008. Removal of Natural Organic Matter by Anion Exchange: Unifying Considerations. Presented at *Department of Environmental Engineering Sciences Graduate Seminar Series*, University of Florida, Gainesville, Florida, 5 September 2008.
2. Boyer, T.H., 2009. Elucidating the Role of Natural Organic Matter in Physical-Chemical Processes. Presented at *Department of Chemical Engineering Graduate Seminar Series*, University of Florida, Gainesville, Florida, 21 September 2009.
3. Boyer, T.H., 2010. Floating Island Treatment System (FITS): Phosphorus Removal from Organic-Rich Surface Water. Presented at *Water, Wetlands & Watersheds Seminar*, University of Florida, Gainesville, Florida, 27 January 2010.
4. Boyer, T.H., 2010. Environmental Applications of Ion Exchange Technology. Presented at *Department of Environmental Engineering Sciences Graduate Seminar Series*, University of Florida, Gainesville, Florida, 9 April 2010.
5. Boyer, T.H., 2011. Interdisciplinary Research Panel Discussion. Panel member at *Innovation through Institutional Integration (I3) Program*, University of Florida, Gainesville, Florida, 29 March 2011.
6. Boyer, T.H., 2011. St. Johns River as Case Study for Alternative Water Sources: Social and Technical Challenges. Presented at *Department of Environmental Engineering Sciences Graduate Seminar*, University of Florida, Gainesville, Florida, 1 April 2011.
7. Boyer, T.H., 2012. Drinking Water Treatment and Wastewater Management. Presented to *URP 6424 Sustainable Urbanism in the Americas*, University of Florida, Gainesville, Florida, 15 November 2012.
8. Boyer, T.H., 2013. Sustainable Urine Processes through integration of Education and Research (SUPER). Presented at *Spring 2013 ESSIE External Advisory Board Meeting*, University of Florida, Gainesville, Florida, 12 April 2013.
9. Boyer, T.H., 2013. NSF Graduate Research Fellowship. Presented at *Graduate Student Grants & Fellowships Conference*, University of Florida, Gainesville, Florida, 17 May 2013.
10. Boyer, T.H., 2013. How to Write a Successful NSF CAREER Award Proposal. *Panel member at NSF CAREER Award Workshop*, College of Engineering, University of Florida, Gainesville, Florida, 31 May 2013.

11. Boyer, T.H., 2013. Sustainable Urine Processes through integration of Education and Research (SUPER). Presented at *SNRE Seminar Series*, University of Florida, Gainesville, Florida, 8 October 2013.

12. Boyer, T.H., 2014. The One Percent. Presented at *UF Engineers' Week 2014/E-fair*, University of Florida, Gainesville, Florida, 19 February 2014.

13. Boyer, T.H., 2014. How to Write a Successful NSF CAREER Award Proposal. *Panel member at NSF CAREER Award Workshop*, College of Engineering, University of Florida, Gainesville, Florida, 30 May 2014.

14. Boyer, T.H., 2014. New Faculty Workshop. Panel member at *New Faculty Workshop: Experiences on Tenure and Promotion*, College of Engineering, University of Florida, Gainesville, Florida, 20 August 2014.

15. Boyer, T.H., 2014. NSF Graduate Research Fellowship. Presented at *Graduate Student Grants & Fellowships Conference*, University of Florida, Gainesville, Florida, 22 September 2014.

16. Boyer, T.H., 2015. Environmental Engineering and Environmental Design Considerations. Presented to *UF IPPD Program*, Gainesville, Florida, 10 February 2015.

17. Boyer, T.H., 2015. Urine Source Separation and Treatment. Presented to *ESI 6912 Divergent Thinking*, University of Florida, Gainesville, Florida, 30 October 2015.

18. Boyer, T.H., 2016. Environmental Engineering and Environmental Design Considerations. Presented to *UF IPPD Program*, Gainesville, Florida, 9 February 2016.

RESEARCH SUPPORT Grants and Contracts

1. Industrial Water Reuse by Innovative Ion Exchange Treatment. Sponsored by: UF EES Occidental Chemical Research Award (12/08–12/09). **Principal Investigator**. Amount: $8,000.

2. Lake Jessup Total Phosphorus Removal Treatment Technologies Floating Island Pilot Project. Sponsored by: St. Johns River Water Management District (12/08–09/10). **Co-Principal Investigator** (Principal Investigator, M.T. Brown, University of Florida). Amount: $200,000 ($100,000 as Co-PI).

3. Scenario-Based Analysis of Surface Water Withdrawals from the St. Johns River Basin. Sponsor: UF Water Institute (06/01/09– 06/30.10). **Principal Investigator** (Co-Principal Investigator, C.A. Overdevest, University of Florida). Amount: $50,000 ($25,000 as PI).

4. Contaminants of Concern. Sponsor: Florida Department of Environmental Protection (10/13/10–12/23/11). **Principal Investigator**. Amount: $51,368.

5. Coupled Biological/Chemical Systems for Maximizing Phosphorus Removal from Natural

   Waters. Sponsor: U.S. Department of Interior, U.S. Geological Survey, State Water Resources Research Institute Program (03/01/11–02/28/14). **Principal Investigator** (Co-Principal Investigator, M.T. Brown, University of Florida). Amount: $32,143 ($32,143 as PI).

6. CAREER: Sustainable Urine Process through integration of Education and Research (SUPER). Sponsor: National Science Foundation (01/15/12–12/31/19). **Principal Investigator**. Amount: $418,474.

7. Florida as a Laboratory for Global Urbanization, Sea Level Rise, and Future Health Risks of

   Drinking Water Sources. Sponsor: UF Office of Research, Research Opportunity Seed Fund (05/01/12–04/30/14). **Principal Investigator** (Co-Principal Investigators, P.A. Chadik, K.I. Frank, J.B. Martin, L.H. Motz, University of Florida). Amount: $87,981 ($50,000 as PI).

8. Urine Source Separation and Treatment: Nutrient Recovery using Low-Cost Materials. Sponsor: U.S. Environmental Protection Agency, P3 Awards: A National Student Design Competition for Sustainability Focusing on People, Prosperity and the Planet (08/15/12– 08/14/13). **Principal Investigator**. Amount: $15,000.

9. Small, Safe, Sustainable (S3) Public Water Systems through Innovative Ion Exchange. Sponsor: U.S. Environmental Protection Agency (08/16/12–08/15/17). **Principal Investigator** (Co-Principal Investigator, Q. Zhang, University of South Florida). Amount: $499,361 ($349,553 as PI).

10. Informing Water Treatment Options for Rural Water Supply Systems in Peninsular Florida.

    Sponsor: U.S. Department of Commerce, Florida Sea Grant Program (09/01/12–08/31/14). **Principal Investigator** (Co-Principal Investigator, W.E. Pine, University of Florida). Amount: $6,815 ($5,725 as PI).

11. Cedar Key Case Study: Laboratory for Sea Level Rise, Saltwater Intrusion, and Future Health Risks of Drinking. Sponsor: U.S. Department of Commerce, Florida Sea Grant Program (01/01/13–08/30/13). **Principal Investigator**. Amount: $2,000.

12. EPA Center for Reinventing Aging Infrastructure for Nutrient Management. Sponsor: U.S. Environmental Protection Agency (09/01/13–08/31/16). **Co-Principal Investigator** (Principal Investigator, J. Mihelcic, University of South Florida). Amount: $136,061 (UF Share) from $2,224,319 (Total Project).

13. ChANgE Chem: Transforming Chemistry with Cognitive Apprenticeship for Engineers. Sponsor: National Science Foundation (09/15/13– 08/31/16). **Co-Principal Investigator** (Principal Investigator, K. Crippen, University of Florida). Amount: $199,617 ($47,966 as Co-PI).

14. Energy-water nexus: Beneficial use of Flue Gas Carbon Dioxide for Innovative Wastewater Treatment. Sponsor: UF EES Occidental Chemical Research Award (03/07/14–03/06/15). **Principal Investigator**. Amount: $8,000.

15. Prevention of Pharmaceutical Water Pollution by Urine Source Separation. Sponsor: U.S. Environmental Protection Agency, P3 Awards: A National Student Design Competition for Sustainability Focusing on People, Prosperity and the Planet (08/15/14–08/14/15). **Principal Investigator**. Amount: $15,000.

16. EPA Center for Water Innovation Network for Sustainable Small Systems. Sponsor: U.S. Environmental Protection Agency (07/01/14–06/30/17). **Co-Principal Investigator** (Pricipal Investigator, D. Reckhow, University of Massachusetts Amherst). Amount: $150,000 (UF Share) from $4,100,000 (Total Project).

17. Development of a Reactive Geocomposite Mat (RGM) Containing Steel Slag Fines and Organic Media to Remove Nitrogen and Phosphorus from Impacted Groundwater and Surface Waters. Sponsor: ASU Center for Bio-Mediated and Bio-Inspired Geotechnics (CBBG) Consortium (08/18/17–07/31/20). **Principal Investigator**. Amount: $146,189.

18. Phoenix Scottsdale Groundwater Contamination Endowment. Sponsor: Arizona State University Foundation (07/01/18–06/30/19). **Principal Investigator**. Amount: $10,000.

19. Regenerable Resin Sorbent Technologies with Regenerant Solution Recycling for Sustainable Treatment of Per- and Polyfluoroalkyl Substances (PFASs). Sponsor: U.S. Department of Defense, SERDP (09/06/18–09/05/21). **ASU Principal Investigator** (Award Principal Investigator, T.

Strathmann, Colorado School of Mines). Amount: $314,578 (ASU Share) from $1,436,000 (Total Project).

20. Sharing Technical and Educational Innovations on Water and Energy Efficiency for Food and Beverage Manufacturing. Sponsor: U.S. Environmental Protection Agency (10/01/18– 11/30/20). **Co-Principal Investigator** (Principal Investigator, L. Passantino). Amount: $106,131 (T.H. Boyer share) from $312,150 (Total Project).

Gifts

1. Research on Ion Exchange for the Removal of NOM from Water. Sponsored by: Orica Watercare (Gift 08/01/10). **Principal Investigator**. Amount: $11,000.
2. Potable Water Research. Sponsor: EE&T, Inc. (Gift 12/31/11). **Principal Investigator**. Amount: $10,000.
3. Potable Water Research. Sponsor: EE&T, Inc. (Gift 06/30/12). **Principal Investigator**. Amount: $10,000.
4. Ion Exchange Research. Sponsor: Jacobi Carbons (Gift 10/31/13). **Principal Investigator**. Amount: $10,000.
5. Potable Water Research. Sponsor: EE&T, Inc. (Gift 10/08/15). **Principal Investigator**. Amount: $4,000.
6. In support of 2019 AEESP Research and Education Conference at ASU. Sponsored by: Geosyntec Consultants (April 2019). **Principal Investigator**. Amount: $5,000.
7. In support of 2019 AEESP Research and Education Conference at ASU. Sponsored by: American Water Works Association (January 2019). **Principal Investigator**. Amount: $3,000.
8. In support of 2019 AEESP Research and Education Conference at ASU. Sponsored by: The Water Council (April 2019). **Principal Investigator**. Amount: $3,000.
9. In support of 2019 AEESP Research and Education Conference at ASU. Sponsored by: Environmental Research & Education Foundation (January 2019). **Principal Investigator**. Amount: $2,000.

10. In support of 2019 AEESP Research and Education Conference at ASU. Sponsored by: Royal Society of Chemistry Publishing (January 2019). **Principal Investigator**. Amount: $1,000.
11. In support of 2019 AEESP Research and Education Conference at ASU. Sponsored by: American Chemical Society (April 2019). **Principal Investigator**. Amount: $1,000.
12. In support of 2019 AEESP Research and Education Conference at ASU. Sponsored by: Water Environment Federation (January 2019). **Principal Investigator**. Amount: $1,000.

TEACHING Courses Taught

Course	Semester	Enrolled[a]	Course Mean[b]	Department Mean[b]	College Mean[b]
Arizona State University					
EVE 304 Environmental Engineering Processes Lab (Coinstructor, 50%, with K. Hamilton) (2 credits)	Spring 2019	4 of 11	4.56		
EVE 261 Introduction to Environmental Processes (3 credits)	Fall 2018	16 of 22	4.43		
ASU 101 The ASU Experience (1 credit)	Fall 2018	10 of 15	4.61		
CEE 561 Physical-Chemical Treatment of Water and Waste (3 credits)	Spring 2018	24 of 28	4.83		
EVE 261 Introduction to Environmental Processes (3 credits)	Fall 2017	4 of 16	4.61		

ASU 101 The ASU Experience (1 credit)	Fall 2017	6 of 14	4.74		
CEE 561 Physical-Chemical Treatment of Water and Waste (coinstructor, 50%, with P. Westerhoff) (3 credits)	Spring 2017	7 of 13	4.70		
University of Florida					
EES4203 Phase Partitioning in the Environment (4 credits)	Spring 2016	40	4.15	4.00	4.06
EES4102 Wastewater Microbiology (2 credits)	Spring 2016	29	4.90	4.00	4.06
IDH3931 (Un)Common Reading: Technology and Society (1 credit)	Spring 2015	3	4.73	4.75	4.21
EES4203 Phase Partitioning in the Environment (4 credits)	Spring 2015	53	4.73	4.60	4.14
EES4102 Wastewater Microbiology (2 credits)	Spring 2015	15	4.85	4.60	4.14
EES4203 Phase Partitioning in the Environment (4 credits)	Spring 2014	51	4.76	4.53	4.14
EES4102 Wastewater	Spring	55	4.66	4.53	4.14

Microbiology (2 credits)	2014				
EES4203 Phase Partitioning in the Environment (4 credits)	Spring 2013	48	4.38	4.26	4.15
EES4102 Wastewater Microbiology (2 credits)	Spring 2013	46	4.65	4.26	4.15
ENV4932 EPA P3 (3 credits)	Spring 2013	2	5.00	4.26	4.15
ENV4932 EPA P3 (3 credits)	Fall 2012	2	5.00	4.39	4.19
EES4203 Phase Partitioning in the Environment (4 credits)	Spring 2012	44	4.39	4.23	4.15
ENV4432 Potable Water System Design (3 credits)	Fall 2011	7	3.25	4.32	4.17
ENV6438 Advanced Potable Water System Design (3 credits)	Fall 2011	4	5.00	4.32	4.17
EES4203 Phase Partitioning in the Environment (4 credits)	Spring 2011	42	4.72	4.37	4.11
EES4203 Phase Partitioning in the Environment (4 credits)	Spring 2010	46	4.56	4.33	4.17

ENV6932 Advanced Environmental Organic Chemistry (3 credits)	Spring 2010	11	4.90	4.33	4.17
ENV4432 Potable Water System Design (3 credits)	Fall 2009	4	4.67	4.39	4.18
ENV6438 Advanced Potable Water System Design (3 credits)	Fall 2009	11	4.82	4.39	4.18
EES4203 Phase Partitioning in the Environment (4 credits)	Spring 2009	36	4.84	4.39	4.19

[a] ASU: Survey responses of total enrolled. UF: Total enrolled. [b] ASU: Part 2: Student Evaluation of Instructor (Overall Average; out of 5.00). UF: Overall instructor evaluation (out of 5.00)

New Programs Developed

Arizona State University

1. **Master's degree in Environmental Engineering, Fall 2020.** Leading the development of new master's degree in Environmental Engineering, which will require the creation of new graduate courses and the reorganization of existing graduate courses.
2. **Accelerated Bachelor's and Master's (4 + 1) Degree Program, Fall 2019.** Led the development of new 4 + 1 degree program between B.S.E. in Environmental Engineering and Master's degree in Civil, Environmental, and Sustainable Engineering.

3. **B.S.E. in Environmental Engineering, Fall 2017.** Led the development of the new B.S.E. in Environmental Engineering degree, which required the creation of eight new courses, new ABET assessment and evaluation plan, and creation of external advisory board.

New Courses Developed

Arizona State University

1. **EVE 214 Environmental Engineering Mechanics.** Concepts of engineering statics and dynamics in the context of environmental processes. **Led approval and initial development of course.**
2. **EVE 261 Introduction to Environmental Processes.** The goal of this course is for students to become knowledgeable in the applications of environmental engineering. The learning objectives of this course are: (1) Students will gain an understanding of the fundamental concepts that govern environmental engineering systems; (2) Students will gain an understanding of the design of environmental engineering systems across the domains of human health, water, land, and air; (3) Students will gain an understanding of the attitude required of engineers and values shared by engineers**. Led approval and full development of course.**
3. **EVE 302 Environmental Engineering Fundamentals: Physical and Chemical Processes.** Physical and chemical processes in the environment emphasizing transport phenomena, aquatic chemistry and geochemistry. **Led approval and initial development of course.**
4. **EVE 303 Environmental Engineering Fundamentals: Biological Processes.** Biological processes in the environment emphasizing environmental microbiology and biogeochemical cycles. **Led approval and initial development of course.**
5. **EVE 304 Environmental Engineering Processes Lab.** Laboratory experiments and data analysis/interpretation of environmental engineering processes including water quality, water treatment, microbiology, air quality and geology. **Led approval and full development of course with K. Hamilton.**

6. **EVE 353 Environmental Engineering Materials.** Introduction to life-cycle and systemlevel thinking for environmental engineering materials. **In development with F. Perreault and K. Hamilton.**

7. **EVE 452 Fundamentals of Geoenvironmental Engineering.** Environmental laws and regulations, geochemistry and geotechnics, groundwater flow, and contaminant transport and fate in the environment. Addresses environmental sources of contamination, contaminated site characterization, risk assessment, in situ waste containment, and soil and groundwater remediation technologies. Soil and groundwater contamination and remediation topics are enhanced with case studies. **Led approval and initial development of course.**

8. **EVE 484 Environmental Engineering Internship.** Structured practical experience following a contract or plan, supervised by faculty and practitioners. **Led approval and full development of course with M. Eicher.**

University of Florida

1. **EES 4203 Phase Partitioning in the Environment.** The goal of this course is to understand the fate of anthropogenic organic chemicals in the environment by applying principles of thermodynamics and organic chemistry. By the end of this course, students should be able to: (1) Apply the laws of thermodynamics to solve environmental science and engineering problems; (2) Predict the reactivity of organic chemicals based on attributes, such as structure and functional group chemistry; (3) Understand the relationship between chemical structure, thermodynamic functions, and molecular interactions; (4) Evaluate the partitioning of a pollutant between two different phases in the environment; (5) Explain the concept of risk and describe different modes of toxicity; (6) Discuss the fate of anthropogenic organic chemicals in the environment in terms of the three pillars of sustainability: economic, environmental, and social. **Led approval and full development of course.**

Short Courses

Arizona State University

1. **Instructor, Ho Chi Minh City University of Technology In-country Workshop: Digital Learning Pedagogy and ABET Strategy.** Delivered one plenary talk entitled “The ABET

Journey of a New Program" and taught three technical sessions entitled "Your ABET Strategy for Program Quality Success," "ABET Data Collection," and "ABET

Program Evaluation," Vung Tau, Vietnam, 22–24 July 2019.

2. **Professional Certificate in Sustainability: Organizational Water Efficiency, School of Sustainability.** Developed 2 online courses each containing 8 units on topic of water conservation and efficiency geared toward working professionals. Summer 2017.
3. **Instructor, Leadership in Engineering Education Accreditation Program (LEEAP),**

   Office of Global Outreach and Extended Education (GOEE). Participated in Mock ABET readiness visit to Andalas University, Padang, Indonesia, 17–21 September 2016.

Student Advising

Doctoral Students Directed

1. Dietz, Rebecca (expected May 2023) Removal of Per- and Polyfluoroalkyl Substances by Ion Exchange Treatment and Regeneration. (Chair, ASU).
2. Edgar, Michael (expected May 2022) Reactive Geocomposite Mat for Phosphorus and Nitrogen Removal. (Chair, ASU)
3. Richard, Rain (expected May 2021) Evolution in Chemical and Microbiological Water Quality in Commercial Buildings. (Chair, ASU)
4. Saetta, Daniella (expected December 2020) Investigation of Cyber-Physical System for Urine Diversion and Treatment. (Chair, ASU)
5. Ray, Hannah (expected December 2020) Selective Nitrogen Recovery from Urine via Membrane Separation. (Chair, ASU)
6. Jagtap, Neha (August 2019) Total Nutrient Recovery from Source-Separated Urine. (Chair, UF)
7. Solanki, Avni (May 2018) Investigation of Low-Cost Materials for Pharmaceutical Separation from Nutrients in Urine. (Chair, UF)

8. Foster, Jerrine (August 2017) Laboratory and Pilot-Scale Testing of Combined Ion Exchange using Alternative Regeneration Chemicals. (Chair, UF)
9. Hu, Yue (May 2017) Contaminant Selectivity, Model Development, and Novel Operation for Ion Exchange Study. (Chair, UF)
10. Landry, Kelly (May 2017) Experimental and Life-Cycle Investigation of Pharmaceutical Removal in Source Separated Urine to Produce a Contaminant Free Nutrient Product. (Chair, UF)
11. Ishii, Stephanie K.L. (May 2015) Investigating the Technical and Social Challenges of Urine Source Separation From a Life Cycle Perspective. (Chair, UF)
12. Sindelar, Hugo (December 2013) Coupled Biological/Chemical Systems for Maximizing Phosphorus Removal from Natural Waters. (Co-Chair with M.T. Brown, UF)
13. Indarawis, Katie (August 2013) Investigation of Combined Ion Exchange to Decrease Membrane Fouling Potential during Water Treatment. (Chair, UF)
14. Rokicki, Chris (August 2013) The Regeneration and Fouling of Bicarbonate-Form Anion Exchange Resins. (Chair, UF)

Master's Thesis Students Directed

1. Del Moral, Lerys (August 2019) Selective Removal and Regeneration of Perfluoroalkyl Substances by Anionic and Nonionic Polymer Resins. (Chair, ASU)
2. Regmi, Urusha (May 2019) Ammonia Recovery from Urine using Zeolite Adsorption. (Chair, ASU)
3. Ness, Alysse (May 2017) Pilot Plant Study of Combined Ion Exchange and Alternative Regeneration Chemicals. (Chair, UF)
4. Saetta, Daniella (December 2016) Urea Hydrolysis Inhibition in Waterless Urinals for Water Conservation and Nutrient Recovery. (Chair, UF)

5. de Torres, Trisha (December 2015) Beneficial Reuse of Treated Municipal Wastewater and Flue Gas Carbon Dioxide via Combined Ion Exchange. (Chair, UF)
6. Vincent, Laurence (December 2015) Using Fluorescence to Characterize Trihalomethane Precursors in Florida Surface Waters. (Chair, UF)
7. Ged, Evan (August 2013) Saltwater Intrusion Impacts on Bromide Concentration and Disinfection Byproduct Formation: Model Evaluation and Laboratory Scale Analysis. (Chair, UF)
8. Graf, Katherine (August 2013) Evaluation of Anion Exchange and Adsorption for Natural Organic Matter (NOM) Pretreatment from Two Surface Waters Using a Two-Stage Countercurrent Reactor. (Chair, UF)
9. O'Neal, Jeremy (August 2013) Phosphorus Recovery by Hybrid Anion Exchange and Struvite Precipitation: Applications to Source-Separated Urine and Combined Wastewater Streams. (Chair, UF)
10. Maul, Gabe (May 2013) Sustainability of Ion-Exchange Regeneration with Sodium, Potassium, Chloride, and Bicarbonate Salts. (Chair, UF)
11. Taylor, Kyle (December 2011) Urine Source Separation: Critical Literature Review and Novel Precipitation Control. (Chair, UF)
12. Comstock, Sarah E.H. (May 2011) Physical-Chemical Treatment of Groundwater and Membrane Concentrate to Decrease Membrane Fouling Potential. (Chair, UF)
13. Walker, Krystal (December 2010) Evaluation of Seasonal Variations of Dissolved Organic Matter and Halide Concentrations in the St. Johns River, FL, USA: Relationship to Ion Exchange Treatment Potential. (Chair, UF)
14. Banerjee, Poulomi (May 2010) Characterization of Natural Organic Matter and Tracking the Changes in its Composition while Removing Phosphorus from Surface Water. (Chair, UF)
15. Persaud, Amar (May 2010) Sustainable Phosphorus Removal from Surface Water. (Chair, UF)

16. Apell, Jennifer N. (December 2009) Combined Ion Exchange for the Simultaneous Removal of Dissolved Organic Matter and Hardness. (Chair, UF)

Bachelor's Honors Thesis Students Directed

1. Pandorf, Madelyn (May 2016) Effectiveness of Human Urine as Fertilizer in Cultivation of Snap Beans and Turnips. (Chair, UF)
2. Casler, Christina (May 2014) An Investigation of Adaptations to Saltwater Intrusion for Coastal Utilities. (Chair, UF)
3. Zinckgraf, Bryce (May 2014) Nutrient Recovery Potential from Stadium Wastewater for Use as Turfgrass Fertilizer. (Chair, UF)
4. de Torres, Trisha (December 2013) Fluorescence Quenching and Ion Exchange: Coupling Analysis with Water Treatment for Improved Insight on Metal Complexation with Natural Organic Matter. (Chair, UF)
5. Landry, Kelly (May 2013) Diclofenac Removal in Urine by Strong-Base Anion Exchange Polymer Resins. (Chair, UF)
6. Sendrowski, Alicia (December 2012) Phosphate Recovery from Human Urine using Hybrid Anion Exchange Resin. (Chair, UF)
7. Reed, Alesandra (May 2012) Making Urine Useful: Ion exchange Resin Treatment to Reduce Precipitation and Extract Pharmaceuticals. (Chair, UF)
8. Cooke, Jacqueline (May 2012) Innovative Phosphorus Removal and Recovery Strategies. (Chair, UF)
9. Morrison, Whitney (May 2012) Identifying Contaminants of Concern for Ground Water Monitoring and Water Supply Planning. (Chair, UF)
10. Willison, Hillary (December 2011) Secondary Effects of Anion Exchange on Chloride, Sulfate, and Lead Release: Systems Approach to Corrosion Control. (Chair, UF)

11. Taylor, Kyle (December 2010) Hardness Removal from Urine using a Cation Exchange Resin. (Chair, UF)
12. Herr, Christina (April 2010) A Critical Review of Sensor Technology for In-Situ Phosphate Monitoring. (Chair, UF)
13. Ishii, Stephanie K.L. (December 2009) Evaluating the Secondary Effects of Magnetic Anion Exchange. (Chair, UF)
14. Apell, Jennifer N. (December 2008) A Critical Review of Low-Pressure Membrane Fouling by Natural Organic Matter. (Chair, UF)

Barrett Honors Contracts Supervised

1. Schadel, Suzanne (Spring 2019) (Chair, ASU)
2. Bonham, Emma (Fall 2018) (Chair, ASU)
3. Mushro, Noelle (Fall 2018) (Chair, ASU)
4. Russell, Andrea (Fall 2018) (Chair, ASU)

SERVICE University Service

Arizona State University

- ABET Coordinator, Environmental Engineering Undergraduate Program, School of Sustainable Engineering and the Built Environment, August 2017–present
- Chair, Environmental Engineering Academic Affairs Committee, School of Sustainable Engineering and the Built Environment, August 2016–present
- Faculty Advisor to ASU Student Organization, Society of Water and Environmental Leaders (SWEL), August 2017–present
- Member, Sustainability Center/Faculty Search Committee, Biodesign Institute, August 2016–present

- Member, Future H_2O Faculty Council, August 2016–present
- Member, Hydrosystems Faculty Search Committee, School of Sustainable Engineering and the Built Environment, October 2018–May 2019
- Member, Udall Undergraduate Scholarship Selection Committee, Barrett Honors College, 2018, 2017
- Chair, Environmental Engineering Lecturer Search Committee, School of Sustainable Engineering and the Built Environment, August 2016–May 2017
- Member, Environmental Engineering Faculty Search Committee, School of Sustainable Engineering and the Built Environment, August 2016–May 2017
- Commencement, Spring 2019, Fall 2018, Fall 2017, Spring 2017, Fall 2016
- Convocation; Spring 2018, Fall 2017, Spring 2017, Fall 2016
- E2 Camp, Summer 2019, Summer 2018, Summer 2017, Summer 2016

University of Florida

- ABET Coordinator, Department of Environmental Engineering Sciences, August 2014– July 2016
- Member of Advisory Committee for UF Honors Program, August 2015–January 2016
- Chair of Engineering School of Sustainable Infrastructure & Environment Director's Advisory Council, May 2014–May 2015
- Member of Engineering School of Sustainable Infrastructure & Environment Director's Advisory Council, January 2012–May 2014
- Member of Hydrologic Sciences Academic Cluster Faculty Committee representing Hydrologic Chemistry, August 2011–August 2012
- Member of Curriculum Committee, Department of Environmental Engineering Sciences, 2009–May 2016.

Professional Activities

Membership and Service in Professional Societies

- American Chemical Society (ACS), 2004–present o Co-organizer (with L. Blaney, University of Maryland Baltimore County) of Symposium "Advances in Resource Recovery and Conservation in Water Systems," Division of Environmental Chemistry, *253rd ACS National Meeting &*

  Exposition, San Francisco, California, 2–6 April 2017 o Co-organizer (with C.-H. Huang, Georgia Institute of Technology) of Symposium "Resource Recovery and Contaminant Elimination in Waste Streams of Increasing Concern," Division of Environmental Chemistry, *250th ACS National Meeting &*

  Exposition, Boston, Massachusetts, 16–20 August 2015 o Excellence in Review Award 2015, *Environmental Science & Technology* o Journal and proposal reviewer

- American Water Works Association (AWWA), 2004–present o Member of University Student Activities Committee, 2008–2016

- Association of Environmental Engineering & Science Professors (AEESP), 2008–present o Chair, Conference Organizing Committee, 2019 AEESP Research and Education

  Conference, 2018–2019 o Member of Lecturers Committee and Chair of AWWA Subcommittee, 2016– present

- o Co-organizer (with A. Landis, Arizona State University and C. Davidson, Syracuse University) of Workshop "Integrating Sustainability into Environmental Engineering Curriculum," *2015 AEESP Research and Education Conference*, Yale University, New Haven, Connecticut, 13–16 June 2015

- o UF representative to host or co-sponsor Distinguished Lecturer each year, 2008– 2016

- IEEE, 2016–present

Reviewer for Funding Agencies and Other Organizations

1. AAAS, Research Competitiveness Program, King Abdulaziz City for Science and Technology (KACST), Proposal Reviewer
2. American Chemical Society, Petroleum Research Fund Doctoral New Investigator Award, Proposal Reviewer
3. Canadian Water Network, Proposal Reviewer
4. Center for Sustainable Engineering, Peer Reviewer
5. IC-IMPACTS Centres of Excellence, Canada–India Research Centre for Excellence, Proposal Reviewer
6. Louisiana Board of Regents, Industrial Ties Research Subprogram Proposals, Proposal Reviewer
7. National Science Foundation, Proposal Reviewer and Panel Member (CBET/Environmental Engineering, Environmental Sustainability, and Chemical and Biological Separations)
8. Natural Sciences and Engineering Research Council (NSERC) Canada, Proposal Reviewer and Site Visit Committee Chair
9. U.S. Department of Agriculture, National Institute of Food and Agriculture Small Business Innovation Research Program Air, Water and Soils, Proposal Reviewer
10. U.S. Environmental Protection Agency, SBIR Program, Proposal Reviewer
11. U.S. Geological Survey, NIWR-USGS National Competitive Grants Program, Proposal Reviewer
12. Water Research Foundation, Proposal Reviewer and Project Advisory Committee

Editorial Board for Scholarly Journals

1. Guest Editor, Special Collection on Onsite and Decentralized Wastewater Management Systems, *Journal of Sustainable Water in the Built Environment*, published by American Society of Civil Engineers (ASCE), 2018–2019

2. Guest Editor, Special Issue – Water for Two Worlds: Urban and Rural Communities, *Accounts of Chemical Research*, published by American Chemical Society (ACS), 2018–2019
3. Associate Editor, *Water Research*, published by the International Water Association and Elsevier, 2017–present
4. Editorial Board Member, *Current Pollution Reports*, published by Springer, 2014–present

Reviewer for Scholarly Journals and Books

1. Alliance of Crop, Soil, and Environmental Science Societies (ACSESS), Agricultural & Environmental Letters
2. American Chemical Society, ACS Sustainable Chemistry & Engineering
3. American Chemical Society, Environmental Science & Technology
4. American Chemical Society, Environmental Science & Technology Letters
5. American Chemical Society, Industrial & Engineering Chemistry Research
6. American Society of Agronomy, Journal of Environmental Quality
7. American Society of Agricultural and Biological Engineers, Transactions of the ASABE
8. American Society of Civil Engineers, Journal of Environmental Engineering
9. American Water Works Association, Journal AWWA
10. Copernicus, Drinking Water Engineering and Science
11. CSIRO, Environmental Chemistry
12. Elsevier, Advances in Colloid and Interface Science
13. Elsevier, Chemical Engineering Journal
14. Elsevier, Chemical Engineering Research and Design
15. Elsevier, Chemical Engineering Science

16. Elsevier, Chemosphere
17. Elsevier, Desalination
18. Elsevier, Environmental Pollution
19. Elsevier, Journal of Analytical and Applied Pyrolysis
20. Elsevier, Journal of Environmental Management
21. Elsevier, Journal of Hazardous Materials
22. Elsevier, Journal of Industrial & Engineering Chemistry
23. Elsevier, Journal of the Taiwan Institute of Chemical Engineers
24. Elsevier, Reactive & Functional Polymers
25. Elsevier, Science of Total Environment
26. Elsevier, Separation and Purification Technology
27. Elsevier, Talanta
28. Elsevier, Waste Management
29. Hindawi, Journal of Ecosystems
30. International Water Association and Elsevier, Water Research
31. International Water Association, Journal of Water Supply: Research and Technology – AQUA
32. International Water Association, Water Science & Technology
33. John Wiley and Sons, Book Proposal Reviewer
34. Mary Ann Liebert, Inc. Publishers, Environmental Engineering Science
35. MDPI, International Journal of Environmental Research and Public Health
36. Multi-Science Publishing Company, Adsorption Science and Technology
37. Nature, Scientific Reports

38. Royal Society of Chemistry, Environmental Science: Water Research & Technology
39. Society of Environmental Toxicology and Chemistry, Environmental Toxicology and Chemistry
40. Springer, Applied Water Science
41. Springer, Environmental Science and Pollution Research
42. Springer, Frontiers of Environmental Science and Engineering
43. Springer, Journal of Soils and Sediments
44. Springer, Journal of Solution Chemistry
45. Springer, Water, Air, & Soil Pollution
46. Taylor & Francis, Desalination and Water Treatment
47. Taylor & Francis, Environmental Technology
48. Taylor & Francis, Separation Science and Technology
49. Taylor & Francis and International Ozone Association, Ozone: Science & Engineering
50. Water Research Commission, Water SA
51. Wiley and AIChE, Environmental Progress and Sustainable Energy
52. Wiley, Journal of Chemical Technology & Biotechnology

6. Visvanathan

1. NAME AND ADDRESS

Name	**C. VISVANATHAN**
Present Address	Dean & Professor
	Environmental Engineering and Management Program
	School of Environment, Resources and Development
	Asian Institute of Technology
	P.O Box 4, Khlong Luang
	Pathumthani 12120
	THAILAND
	Tel/ fax: (66-2) 524 5640
	E-mail: visuvaru@gmail.com ; visu@ait.ac.th
	Web: http://faculty.ait.ac.th/visu

2. LANGUAGE PROFICIENCY

a. English and Tamil	Speaking, writing and reading - Excellent
b. French and Singhala	Speaking and reading - Excellent; Writing - Very Good

3. ACADEMIC QUALIFICATIONS

1992 Certificate of training on Introduction to Industrial Biotechnology, GBF, Braunschweig, Germany.

1988 Ph.D in Chemical/Environmental Engineering, Institut de Génie Chimique, Institut National Polytechnique de Toulouse, Toulouse, France.

1986 Diplôme d'études approfondies (DEA), in Chemical/Environmental Engineering,

Institut de Génie Chimique, Institut National Polytechnique de Toulouse, Toulouse, France.

1985 Technical French Course, Centre de Francais, Institut Agronomique Méditerranéen de Montpellier, Montpellier, France.

1984 M.Engg in Environmental Engineering, Asian Institute of Technology, Bangkok, Thailand.

1981 B. Tech in Chemical Engineering, Indian Institute of Technology, Chennai, India

4. PROFESSIONAL EXPERIENCE

July 2013 – Dec 2015	**Dean**, School of Environment, Resources and Development, AIT
July 2001 - Present	**Professor**, Environmental Engineering and Management Program, Asian Institute of Technology, Bangkok, Thailand
July 1994 - June 2001	**Associate Professor**, Environmental Engineering Program, Asian Institute of Technology, Bangkok, Thailand
July 2001 - Dec 2002	**Program Coordinator,** Urban Environmental Engineering and Management Program, Asian Institute of Technology, Bangkok, Thailand
Jan 1995 - Jan 1996	**Program Coordinator,** Environmental Engineering Program, Asian Institute of Technology, Bangkok, Thailand
July 1991 - June 1994	**Assistant Professor,** Environmental Engineering Program, Asian Institute of Technology, Bangkok, Thailand
Feb 1991 - June 1991	**Consultant,** UNEP-Industry and Environment Office, Paris, France.
Sept 1988 - Dec 1990	**Project Engineer/Environmental Engineer**, Asia Division International Training Centre for Water Resources Management, CEFIGRE, Valbonne Cedex, France

Aug 1985 - Sept 1988	Worked for the doctoral degree in the field of Crossflow Electromicro Filtration and its application for industrial wastewater treatment with Prof. R. Ben Aim, Solid/Liquid Separation Laboratory, CNRS - ENIGC, Toulouse, France.
April - Oct 1984	**Research Associate,** Preparation of a Masterplan for Rural Water Supply and Sanitation in Thailand Project, AIT, Bangkok, Thailand
Aug 1981- April 1982	**Trainee Chemical Engineer,** Kothari Chemical Industries, Avadi, Madras, India

5. AREAS OF EXPERTISE

- Solid - liquid separation technologies for water and wastewater treatment, desalination and membrane technology
- Solid waste management : 3R (Waste Reduce, reuse and recycle)
- Waste minimization and waste auditing
- Wastewater reuse
- Clean technologies
- Environmental technology assessment
- Industrial pollution control

6. CONSULTANCY WORK

1. Selection of Appropriate Wastewater Treatment System for a Small Village on the Chao Phraya River Bank, funded by UNEP and CIDA (September 1992).

2. Setting-up of a Data Bank on Hazardous Waste Management for Asean and South Asian Countries, funded by the French Agency for Energy & Environment (ADEME) (September 1992).

3. Strategy Guidelines and Institutional Strengthening for Industrial Pollution Management, Metropolitan Environmental Improvement Program, Colombo, Sri Lanka, funded by World Bank and ERM London (August 1993).

4. Feasibility Study for the Establishment of a Joint Wastewater Treatment Plant for Industrial Estate/Industries in Ekala and Ja-Ela, Metropolitan Environmental Improvement Program, Colombo, Sri Lanka, funded by World Bank and Soil and Water Ltd., Finland (December 1993).

5. Waste Auditing in a Small Scale Dyeing Industry and Recovery of Dyes, CDG (May 1993 - November 1994).

6. Associate Visiting Consultant for Colombo Metropolitan Environmental Improvement Program, funded by World Bank (October 1993 - March 1994).

7. Waste Auditing in an Ice Cream Factory - Lever Brothers, Thailand (September 1993 - April 1994).

8. Organized a Training Program on Environmental Appraisal of Industrial Projects for Officers of Sri Lankan Financial Institutions, AIT, Bangkok, Thailand, funded by World Bank and National Development Bank of Sri Lanka (April 1995).

9. Demonstration Factory Project on Identifying Waste Minimization Options in Bangkok, Thailand, Asian Productivity Organization's (APO) (September 1995 - September 1996).

10. Water Quality Expert on the Royal Initiative Project on Water Resources Development for Metropolitan Water Authority, Bangkok, Thailand (May 1995 - April 1996).

11. Spent Caustic Recovery Potential using Membrane Technology, Coca-Cola Factory, Bangkok, Thailand (January 1996 - August 1996).

12. Organized a Training Program on Water Supply and Sewerage Master Plan, Part I: Water Supply for Bhutan Government, AIT, Bangkok, Thailand, funded by DANIDA and Carl Bro Int. - Denmark (April 1996).

13. Development of Energy Efficient and Environmentally Sound Industrial Technologies in Asia, SAREC--Sida (1996 – 1997).

14. Development of Training Resource Package on Cleaner Production in Food Processing Industry- Poultry Slaughter House for UNEP Working Group in Food Processing (1997).

15. Treatment and Disposal of Mercury Contaminated Waste, TOTAL Exploration Thailand Ltd. (January 1997 - September 1997).

16. Electroplating Sector Cleaner Production Expert Consultant for the Danish Cooperation for Environment and Development (DANCED) on the project Promotion of Cleaner Technology in Thai Industry, TEI (June 1997 – December 1997).

17. Preparation of Environmental Audit and Toxic Sludge Management Plan for THAINOX, Thailand (September 1997 - September 1998).

18. Organized a Training Program on Environmental Appraisal of Industrial Projects for Officers of Sri Lankan Financial Institutions, AIT, Bangkok, Thailand, funded by KfW and National Development Bank of Sri Lanka (June 1998).

19. Preparation of Cleaner Production Technology Fact Sheets for Pulp and Paper Industries, UNEP (January 1998 - December 1998).

20. Cleaner Production Curricula Expert for UNIDO, provided assistance to Vietnam Cleaner Production Centre at Hanoi, incorporating cleaner production as part of the university curriculum (March 2000).

21. Waste Management and Cleaner Process Expert for UNIDO, Vienna, Austria, provided technical assistance for report writing on Municipal Solid Waste Management in Asia and Africa: A Comparative Analysis (November 2001).

22. Environment Assessment Specialist on Environmental and Social Safeguards: Capacity Building Assessment and Strategy for the Mekong Region Countries, funded by World Bank (September 2002).

23. Cleaner Production Expert, helped in the compilation of status report on the existing Multilateral Environmental Agreements and their links to Cleaner Production, Centre in Ethiopia, UNIDO (June 2004).

24. Cleaner Production Expert on the Role of Academic Institutions in Industrial Chemical Management: Cases of Asean Nation, UNIDO (December 2005).

25. UNIDO Consultant, developed a Training Program on Curriculum Development in Cleaner Production for the National Universities, National Cleaner Production Centre Colombo, Sri Lanka (5-9 June 2006).

26. International Senior Training Consultant – Solid Waste Management - UN- HABITAT - for Banda Ache and North Sumatra, Indonesia, 3 weeks in July, 2010

27. International Cleaner Production Training Consultant to train the staff of Department of Industry and Trade and Industrial Promotion Centers, Vietnam, Embassy of Denmark, Vietnam, September- October, 2010.

7. MEMBER IN SCIENTIFIC COMMITTEES AND ORGANIZING CONFERENCES

1. Invited by the Ministry of Water Resources to present a lecture on Effective Environmental Management, Harare, Zimbabwe (27-30 September, 1988).

2. Secretary of the International Seminar on Wastewater Reuse, sponsored by EEC, Nice, France (18-22 September 1989).

3. Expert Panelist for the plenary session on Water Quality and Wastewater/Sewage Management during the International Seminar on Water and Wastewater, Barcelona, Spain (24-27April 1990).

4. Secretary of International Water Resources Association (IWRA) Ad-hoc Technical Committee on Treatment and Reuse of Wastewater (1990, 1991).

5. Participated in the Global Hazardous Waste Survey organized by IMO, London (7-8 May 1992).

6. Secretary, National Seminar on Advanced Water and Wastewater Treatment, Bangkok, Thailand (February 1992).

7. Member of the Scientific Committee on Hazardous Wastes, 2nd Princess Chulabhorn Science Congress, Bangkok, Thailand (2-6 November 1992).

8. Member of the Technical Review Committee for the International Conference Pollution Control '97, Bangkok, Thailand (12-14 November 1997).

9. Member of the Scientific Committee for the International IAWQ Conference on Biofilm Systems, New York, USA (1720 October 1999).

10. Member of the Scientific Committee for the International Conference on Civil and Environmental Engineering: New Frontiers and Challenges, Bangkok, Thailand (8-12 November 1999).

11. Member of the Scientific Committee for the International Conference on Hazardous Waste Management, Chennai, India (27-29 January 2000).

12. Member of the Scientific Committee for the Pacific Basin Conference on Hazardous Waste, Manila, Philippines (10 – 14 April 2000).

13. Member of the Scientific Committee for the International Symposium on Wastewater Reclamation, Recycling and Reuse, 1st World Water Congress of the International Water Association, Paris, France (3-7 July 2000).

14. Member of the Scientific and Organizing Committee Conference on Membrane Technologies for Water and Wastewater Reclamation, Chennai, India (15-16 February 2001).

15. Organizer of the Seminar on Membrane Bioreactors for Wastewater Treatment and Reuse, Bangkok, Thailand (23 November 2001).

16. Co-organizer of the World Bank Consultation Workshop on Environmental and Social Safeguards: Capacity Building Assessment and Strategy for Cambodia, Lao, Thailand and Vietnam, Rama Gardens, Bangkok, Thailand (19-20 September 2002).

17. Member of the Scientific and Organizing committee of IWA – International Specialized Conference on Water Environment Membrane Technologies, Seoul, Korea (7-10 June 2004).

18. Member of the International Advisory Board –Tenth International Waste Management and Landfill symposium, Sardinia, Italy (3-7 October 2005).

19. Invited Guest Lecturer at the Centre of Excellence - Nagaoka University of Technology, Thermophilic Anaerobic Digestion of Municipal Solid Waste in Combined Process and Sequential Staging, The 6th International Symposium on Global Renaissance by Green Energy Revolution, Nagaoka, Japan (26-27 January 2006).

20. Member of the Scientific and Organizing Committee – Seminar workshop on Management of Petrecibles in Solid Waste, Montegrottto, Italy (5-7 April 2006).

21. Lead Resource Person and Technical Organizer of the 3R Waste Management South Asia Expert Workshop, in collaboration with UNEP, IGES – Japan and ADB, Katmandu, Nepal (30 August – 1 September 2006).

22. Member of the International Scientific Committee, International Conference ORBIT – Biological Waste Management, Weimar, Germany (13-15 September 2006).

23. Co-chairman, 4th International Symposium on Southeast Asian Water Environment, Bangkok, Thailand (6-8 December 2006).

24. Member of the International Scientific Committee, International Conference on Cleaner Technologies and Environmental Management, Puducherry, India (4-6 January 2007).

25. Invited as a Resource Person and Reporter of the 2nd Workshop on Innovation of Membrane Technology for Water and Wastewater Treatment, organized by Hokkaido University, Sapporo, Japan (27-29 August 2007).

26. Member of the Scientific and Organizing Committee, International Conference on Sustainable Solid Waste management, Chennai, India (5-7 September 2007).

27. Invited as a Resource Person and Facilitator of the Waste Management and Recycling session, chaired by the Japanese Environmental Minister Mr. Kamoshita, Fukuoka, Japan (8-9 September 2007).

28. Member of the International Advisory Board – Eleventh International Waste Management and Landfill Symposium, Sardinia, Italy (1-5 October 2007).

29. Member of the International Scientific Committee, 6th IWA Specialist Conference on Wastewater Reclamation and Reuse for Sustainability, Antwerp, Belgium (9-12 October 2007).

30. Member of the Organizing & Scientific Committee, 5th International Symposium on Southeast Asian Water Environment, Chaingmai, Thailand (7-9 November 2007).

31. Member of the International Advisory Committee, International Conference on Waste Engineering and Management, Hong Kong (28-30 May 2008)

32. Member of the International Scientific Committee, 6th Regional Symposium on Membrane Science and Technology 2008: Food, Energy and Environment, Phuket, Thailand, (13-15 August 2008).

33. Member of the Organizing & Scientific Committee, 6th International Symposium on Southeast Asian Water Environment, Bandung, Indonesia (29-31 October).

34. Member of the International Scientific Committee, IWA Membrane Technology Conference, Beijing, China (1-3 September 2009).

35. Member of the International Advisory Board, International Conference on Solid Waste Management: Technological, Environmental and Socio-Economical Contexts" Khulna, Bangladesh, 9-10 November, 2009.

36. Member of International Advisory Committee, 2nd International Conference on Waste Engineering and Management, Shanghai, China, 13-15 October, 2010

37. Member of International Advisory Committee, 8th International Symposium on South Asian Environment, Phuket, Thailand, 24-26 October, 2010

38. Member of Executive Committee, Water and Environmental Technology Conference, Yokohama National University, Tokyo, Japan, 25-26 June, 2010.

39. Member of International Advisory Board for the 5th International Conference on Environment (ICENV 2010), Penang, Malaysia, 13-15 December 2010.

40. Member of Scientific Committee, "Regional Conference on Global Environment – Global Environmental Issues for Sustainable Development in the ASEAN Region", Ho Chi Minh city, Vietnam, 8-9 March, 2010

41. Member of the International Advisory Board, International Conference on Environmental Technology and Construction Engineering for Sustainable Development, Shahjalal University of Science & Technology, Sylhet, Bangladesh, 10-12 March, 2011.

42. Member of the International Scientific Committee, International Conference on Solid Waste 2011: Moving Towards Sustainable Resource Management', Hong Kong, 3-7 May, 2011.

43. Member of the International Advisory Board, Water and Environmental Technology Conference, 2011, organized by Japan Society on Water Environment – JSWE, 24-25 June, 2011, Tokyo.

44. Member of the International Advisory Committee, International Conference on IWA-ASPIRE, Tokyo, 2-6 October 2011 (Website : http://www.aspire2011.org/).

45. Member of the International Advisory Board– International Waste Management and Landfill Symposium, Sardinia, Italy 3-7 October, 2011

46. Member of the International Scientific Committee, 8th IWA International Conference on Water Reclamation & Reuse, Barcelona, Spain, 26-29 September, 2011.

47. Member of the International Advisory Board, International Conference on Solid Waste Management: IconSWM 2011, Kolkata, 7-9, November, 2011.

48. Invited as a member of the drafting committee member of the CSD Inter-sessional Conference on Building Partnership for Moving towards Zero Waste, 16-18 February, 2011, Tokyo, Japan.

49. Member of the Executive Committee, "Water and Environment Technology:, 29-30 June, 2012, Tokyo, Japan.

50. Member of the International Advisory Board, International Conference on Environment 2012. "Green Technology for Tomorrow", Pinang, Malaysia, 11-13, December, 2012.

51. Member of UNIDO Technical Expert Committee on "Green Industry Platform", from March, 2013

52. Member of the Advisory Committee, " International Conference on Technologies for Sustainable Waste Management in Developing Countries" Vignan University, Guntur, India, 23-24 August, 2013.

53. Member of International Advisory Committee, International Conference on Waste Management and Environment, University of Malaya, Kuala Lumphur, Malaysia, 26-27, August, 2013

54. Member of the Advisory Committee, " International Symposium on Sustainable Infrastructure Development" IIT Bhubaneswar, India, 7-9, February, 2013

55. Member of International Scientific Committee, "4th International Conference on Solid Waste Management" Hyderabad, Andhra Pradesh, India, 28-30 January, 2014

56. Member of the Scientific Committee, "EuroAsia 2014 - Waste Management Symposium", Istanbul, Turkey, 28-30 April, 2014

57. Member of the International Scientific Committee, "Municipal Waste Management and Sanitation in Developing Countries" IWA International Conference, Bangkok, Thailand, 2-4 December, 2104.

58. Member of the International Scientific Committee, "11th International Symposium on Southeast Asian Water Environment – SEAWE11", Bangkok, Thailand, 26, 28 November, 2014

59. Member of the International Scientific Committee, "Sustainable water and Sanitation Services for All in a Fast Changing World" WEDC International Conference, Hanoi, Vietnam, 15-19, September, 2014.

60. Member of the International Scientific Committee, "Global Challenges: Sustainable Wastewater Treatment and Resource Recovery" IWA International Conference, Katmandu, Nepal, 26-30 October, 2014

61. Member of the International Scientific Committee, "IWA Regional Conference on Membrane Technology" 3-6 December, HCMC, Vietnam, 2014.

62. Member of the International Advisory board Member ICENV 21015 – Green Technology: The Route to a Sustainable Future, 18-19 August, 2015, Penang, Malaysia.

63. Member of the International Scientific Committee, "RAMIRAN 2015- International Conference – Rural-Urban Symbiosis", Hamburg, Germany, 8-10 September, 2015.

64. Member of the International Scientific Committee, "Solid Waste 2015", Hong Kong 20-23 May, 2015

65. Member of the International Scientific Committee, "3R International conference" Daejeon, Korea, 21-23 May, 2015

66. Member of the International Advisory Board, "Waste Safe 2015 – International Conference on Solid Waste Management in Developing Countries", Khulna, Bangladesh, 15-17, February 2015

67. Member of the Advisory Committee, " International Conference on Engineering Research, Innovation and

Education - ICERIE - 2013, , 11-13, January, 2013, Sylhet, Bangladesh. Member of the International Scientific Committee, "Solid Waste 2015", Hong Kong 20-23 May, 2015

8. ORGANIZER AND/OR RESOURCE PERSON IN TRAININGS

1. Toxic and Hazardous Waste Management, IEAT, Bangkok, Thailand (7 August 1991).
2. Course Director, Marine Oil Pollution, Continuing Education Center - AIT, Bangkok, Thailand (4-29 November 1991).
3. International Training Course on Environmental and Industrial Toxicology, CRI/AIT (18 November - 12 December 1991).
4. Organized a Training Program on Desalination for the National Waterworks Technology Training Institute, Bangkok, Thailand (28 April 1992- 29 July 1992).
5. International Training Course on Urban Drainage in Developing Countries, Continuing Education Center - AIT, Bangkok, Thailand (8-17 November 1992).
6. Course Director, Toxic and Hazardous Waste Management, Continuing Education Center-AIT, Bangkok, Thailand (19 April - 14 May 1993).
7. International Workshop on Waste Management for Sustainable Development, Hat Yai, Thailand (4-7 May 1993).
8. National Seminar on Current Status on Environmental Impact Assessment in Vietnam, Ho Chi Minh City, Vietnam (2125 June 1993).

9. Training Course on Industrial Waste Water Pollution Control, Hanoi, Vietnam (23-26 June 1993).

10. International Training Course on Water Resource Management for Sustainable Development, Mahidol University, Bangkok, Thailand (7-30 July 1993).

11. Course Director for the Training Course on Industrial Pollution Control Strategies for the National Development Bank and DFCC Staff, Colombo, Sri Lanka (17-21 August 1993).

12. Asia Pacific Tertiary Level Environmental Training Workshop on Toxic Chemicals and Hazardous Processes, UNEP, Bangkok, Thailand (28-30 September1993).

13. Training Approaches for Environmental Management in Industry: an Interagency Workshop for African Training Institutes, UNEP - WHO – ILO, Mauritius (4-8 October 1993).

14. Cleaner Production and Waste Auditing for the Post Graduate Program in Environmental Engineering, University of Moratuwa, Sri Lanka (22 October 1993).

15. International Training Course on Water Supply Technology, NWTTI, Bangkok, Thailand (25 January 1994).

16. Presented a Lecture on Fundamentals and Application of Electro Microfiltration, UNESCO Membrane Science and Technology Center, University of New South Wales, Sydney, Australia (19 May 1994).

17. Invited as a Short Term Visiting Faculty to present series of lectures on Waste Auditing: Case Studies for the Graduate Certificate Program in Environmental Engineering and Management, University of Technology, Sydney, Australia (25 May - 1 June 1994).

18. Workshop on Planning and implementing a Pollution Prevention and Control Program for Small and Medium Electroplating Industries, CDG - SEAPO, Chiang Mai, Thailand (2-4 September 1994).

19. Organizer and Resource Person for the National Seminar on Hazardous Waste Management Strategies for Vietnam, Hanoi University - Center for Environmental Science and Technology, Hanoi, Vietnam (20 - 22 October 1994).

20. Coordinator and Resource Person for the International Training Course on Pollution Control and Management, organized by AIT - CRI, Bangkok, Thailand (7 November - 2 December 1994).

21. Workshop on Planning a Pollution Prevention and Control Program for Textile Dyeing and Finishing Industries, organized by CDG - SEAPO, Kanchanaburi, Thailand (24 - 27 November 1994).

22. Organizer and Resource Person for the Training Program on Environmental Appraisal of Industrial Projects, organized by Environmental Engineering Program, AIT, Bangkok, Thailand (17-18 April 1995).

23. Organizer and Resource Person for the inter school workshop on Development of Integrated Industrial Pollution Prevention and Control Program, organized by CDG and EEP, Khaw yai, Thailand (1-4 May 1995).

24. Resource Person in the National Seminar on ODS Phase-out of the solvent Cleaning Industry and presented a paper on UNEP's Ozone Action Information Clearinghouse Database, organized by IEAT, Bangkok, Thailand (12 May 1995).

25. Participated in the APO Study Meeting on Environmental Management and Control - ISO 14000, organized by APO, Hong Kong (8-11 August 1995).

26. Principal Resource Person for the Training Seminar on Cleaner Production in Textile and Paper Industries for Vietnam, organized by the CEST, Hanoi University of Technology, Vietnam (7-9 March 1996).

27. Resource Person and presented lectures on Water Pretreatment Processes, Coagulation/Flocculation and Advanced Water Purification Processes at the International

Training Course on Water Supply Technology, NWTTI, Bangkok, Thailand (26 February - 5 April 1996).

28. Organizer and Resource Person for the Training Program on Bhutan Water Supply and Sewerage: Part 1 - Water Supply, organized by Environmental Engineering Program, AIT, Bangkok, Thailand (18 March - 12 April 1996).

29. Resource Person for the Training Course on Enhancement of Expertise and Implementation of Environmental control Technology for Oil and Gas Activities, organized by the Ministry of Mines and Energy- Directorate General of Oil and Gas, Yogyakarta (9 -14 December 1996) and Bandung, Indonesia (16 - 21 December 1996).

30. Organizer for the National Workshops on Energy Efficient and Environmentally Sound Industrial Technologies, organized by Energy Conservation Centre, Colombo, Sri Lanka and Department of Energy, Manila, Philippines (19 August - 26 September 1997).

31. Course Director and Resource Person for the Training Course on Environmental Appraisal of Industrial Project for the Sri Lankan Financial Institutions, AIT, Bangkok, Thailand (4- 12 June 1998).

32. Presented series of lectures on Membrane Technology at the National Membrane Technology Division Workshop, organized by the Water Institute of South Africa, Drakensville, South Africa (29 September 1999).

33. Resource Person and presented series of lectures on Water Pretreatment Processes, Coagulation/Flocculation and filtration and Advanced Water Purification Processes, Industrial Water Reuse, Annual International Training Course on Water Supply Technology, NWTTI, Bangkok, Thailand (1996 – 2004).

34. Resource Person for the Training Course on Industrial Waste Auditing: Practical Approach, organized by the TechnoBiz Communications Ltd., and Cleaner Technology Asia Journal (26 April 2006).

35. Resource Person for the Training Course on Bio Energy Cluster – Pattani Project, organized by Thai Resources and Environmental Management Institute and presented a lecture on Socio- Economic and Environmental Aspects of Jatropha Plantation as an Energy Crop, Pattani, Thailand (19-20 September 2006).

36. Lead resource person for the training course on " Management of Water Supply Business ", organized by Metropolitan Waterworks Authority, NWTTI, Bangkok, Thailand (2008 and 2009).

37. Participated as the lead resource person in the "Regional Workshop on Eco-Industrial Clusters: Policies and Challenges", organized by ADB Institute, Tokyo, Japan (8-11 December 2009).

38. Organized national Training program on "Application of Membrane Technology for Water and Wastewater Treatment" in collaboration with HCMC University of Technology, 22 December, 2010.

39. Presented a lecture on "Public Private Partnership in Water Sector" organized by NWTTI, Metropolitan Water Works, Bangkok, Thailand, 18 August – 9 September, 2010.

40. Presented lecture series on "Design of Water Treatment Plant" organized by NWTTI, Metropolitan Water Works, Bangkok, Thailand, 22 June – 2 July, 2010.

41. Organized national Training program on "Application of Membrane Technology for Water and Wastewater Treatment" in collaboration with HCMC University of Technology, 22 December, 2010.

42. Designed and organized a national Cleaner Production training program for Ho Chi Minh City Environmental Protection Agency (HEPA), 13-15 January, 2011

43. Organized a training program on "Zero Liquid Discharge in Industries", jointly with LPE and Duraflow Companies, 12 November, 2013, Bangkok, Thailand, presented a lecture on "Needs and Opportunities for Zero Liquid Discharge in Industries".

44. Organized and delivered a 3 day short term training course on "Environmental Impact

Assessment - Advanced Level", for Vietnam Petroleum Institute - in coordination with AITCV, Ho Chi Minh City, 16-8

May, 2013

45. Organized and presented an "International Training Program on *Membrane Water Treatment Fundamentals* " at the 3 W Expo 2013, 22-24 January, 2013, BITEC, Bangkok, Thailand.

46. Organized a training program on “Zero Liquid Discharge in Industries”, jointly with LPE and Duraflow Companies, 12 November, 2013, presented a lecture on “Needs and Opportunities for Zero Liquid Discharge in Industries”.

47. Developed jointly with UNEP, a Winter School Program on “Sustainable Consumption and Production in Asia and the Pacific”, 8-19, December, 2014, AIT, Bangkok, Thailand

48. Organized an international training program on “Holistic Waste Management”, in collaboration with UNEP- IETC and UNITAR- CIFAL, 28-30, October, Bangkok, Thailand

49. Participated as a resource person in the Training Workshop on “Capacity Building for Sustainable Waste Management in the Asia-Pacific Region to Promote Eco-town Models and Holistic Waste Management”, at JeJu, South Korea 25 September – 1 October, 2014.

9. PUBLICATIONS

9.1 Books and Research Reports

1. K. Yamammoto, H. Furumai, H. Katayama, C. Chiemchisri, U. Puetpaiboon, C. Visvanathan and H. Satoh,

“Southeast Asian Water Environment” IWA Publishing, ISBN: 9781780404950, 2014

2. Khan S. J., Visvanathan C. (2010). Fouling Mitigation Approaches in Membrane Bioreactor: Influence of hydrodynamic and physico-chemical approaches on fouling mitigation in a membrane bioreactor. VDM Verlag Dr. Müller, Germany. ISBN: 978-3-693-27831-6.

3. **C. Visvanathan**, "Healthcare Waste in Asia: Intuitions and Insights", 3R Knowledge Hub Secretariat, Asian Institute of Technology, Thailand, ISBN 978-974-8257-62-4, March 2008.

4. **C. Visvanathan**, "3R in Asia: A Gap Analysis in Selected Asian Countries", 3R Knowledge Hub Secretariat, Asian Institute of Technology, Thailand, ISBN 978-974-8257-41-9, March (134 Pages), 2008.

5. S. Kumar, **C. Visvanathan**, S. Peng, R. Rudramoorthy, A.B. Herrera, G. Senanayake and L. Dinh Son. *Greenhouse Gas Mitigation in Small and Medium Scale Industries of Asia*. AIT Publication, ISBN: 974-8208-59-1 (66 pages), 2005.

6. S. Kumar, **C. Visvanathan**, S. Peng, R. Rudramoorthy, A.B. Herrera, G. Senanayake and L. Dinh Son. *Barriers to Promoting Energy Efficient and Environmentally Friendly Technologies to SMIs in Asia*. AIT Publication, ISBN: 9748208-60-5 (77 pages), 2005.

7. Z. Gongming, **C. Visvanathan** and J. Tränkler. *Landfill Leachate Treatment* (Chinese Edition), Tongji Univeristy Press Publication, China, ISBN: 7-5608-2774-8, 2005.

8. **C. Visvanathan**, J. Tränkler, K. Joseph, C. Chiemchaisri, B.F.A. Basnayake and Z. Gongming. *Municipal Solid Waste Management in Asia*. AIT Publication, ISBN: 974-417-258-1 (108 pages), 2004.

9. K. Joseph, R. Nagendran, K. Palanivelu, K. Thanasekaran and **C. Visvanathan**. *Dumpsite Rehabilittion and Landfill Mining*. CES, Anna University, Chennai, India and AIT Publication (51 pages), 2004.

10. **C. Visvanathan** and S. Kumar. *Small and Medium Scale Industries in Asia: Energy and Environment – Tea Sector*. RERIC, Thailand, ISBN: 974-8208-49-4 (59 pages), 2003.

11. M. Eisa and **C. Visvanathan**. *Municipal Solid Waste Management in Asia and Africa: A Comparative Analysis.* UNIDO – Cleaner Production and Environmental Management Branch, Vienna, Austria (69 pages), 2002.

12. **C. Visvanathan** and S. Kumar. *Policy Interventions to Promote Energy Efficient and Environmentally Sound Technologies in Small and Medium Scale Industries*. RERIC, Thailand, ISBN: 974-8209-01-6 (59 pages), 2002.

13. **C. Visvanathan** and S. Kumar. *Small and Medium Scale Industries in Asia: Energy and Environment – Desiccated Coconut Sector*. RERIC, Thailand, ISBN: 974-8208-47-8 (69 pages), 2002.

14. S. Vigneswaran, **C. Visvanathan** and V. Jegatheesan. *Industrial Waste Minimization*, EnSearch Publishers, Malaysia, ISBN 983-9659-06-5 (155 pages), 1998.

15. B. Mohanty and **C. Visvanathan**. *Energy Efficient and Environmentally Sound Industrial Technologies: a Cross Country Comparison*. SERD, AIT, ISBN: 974-8256-68-5 (102 pages), 1997.

16. P.M. Modak, **C. Visvanathan** and M. Parasnis, *Cleaner Production Audit*. ENSIC Review, AIT, Bangkok, Thailand, No. 32, 1995.

17. S. Vigneswaran and **C. Visvanathan**. *Water Treatment Processes: Simple Options.* Boca Raton, Florida: CRC Press.

    ISBN: 0-8493-8283-1 (224 pages), 1995.

18. Contributor, The Textile Industry and the Environment, UNEP - IEO Technical Report No.16, 1994.

19. S. Muttamara, **C. Visvanathan** and K. U. Alwis. *Solid Waste Recycling and Reuse in Bangkok*. Environmental Systems Reviews, AIT, Bangkok, Thailand, No. 33, (48 pages), 1993.

20. Selected Bibliography on Industrial and Hazardous Waste Management, UNEP NETTLAP, 1993.

21. Doctoral Thesis: *The Role of Presence of Colloids and the Influence of Application of an Electric Field on the Membrane Fouling Mechanisms of Crossflow Microfiltration*, September 1988.

22. S. Vigneswaran, D.M. Tam, **C. Visvanathan**, N.C. Thanh and C.R. Schultz. *Water Filtration Technologies for Developing Countries*. Environmental Sanitation Reviews, AIT, Bangkok, Thailand, No. 12 (110 pages), 1983.

23. Masters Thesis: *Mathematical Modeling of Mobile Bed Filtration*, AIT, Bangkok, Thailand, April 1984.

9.2 Chapters in Books

1. A. Abeynayaka, T. Nguyen, C. Visvanathan, P. Ariyamethee, "Chemical-free and carbon neutral membrane based emergency water supply system", 5th Southeast Asian Water Environment, ISBN: 978 17890404950, pp: 89-94, IWA publishing, 2014

2. P.Kashyap and C.Visvanathan . "Formalization of Informal Recycling in Low-Income Countries", Municipal

   Solid Waste Management in Asia and the Pacific Islands Challenges and Strategic Solutions. Edited by

   A. Pariatamby and M.Tanaka, Published by Springer, ISBN: 978-981-4451-72-7., pp: 41-60, 2014

3. B.F.A. Basnayake and C.Visvanathan (2014). "Solid Waste Management in Sri Lanka" , Municipal Solid Waste Management in Asia and the Pacific Islands Challenges and Strategic Solutions. Edited by A. Pariatamby and

   M.Tanaka, Published by Springer, ISBN: 978-981-4451-72-7., pp: 299-316, 2014

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9.4 International Conference Proceedings

1. C. Visvanathan and P. Jacob, "Centralized control on decentralized wastewater treatment: the emerging role of membrane bioreactors", Invited Lecture, International Conference on New Horizons in Biotechnology", 22-25, November, 2015, Trivandrum, India

2. C. Visvanathan, "Role of Private Sector in Achieving Zero Waste Society" IPLA Global Forum, 6-8 October, Moscow, Russia, 2015

3. C. Visvanathan, "3Rs for Water Security in Asia and the Pacific", 6th Regional 3R Forum in Asia and the Pacific, 1619 August, 2015, Maldives.

4. C. Visvanathan, "Urban Wastewater Issues and Trends in Thailand", invited speaker, by the Ministry of Foreign Affairs–Singapore, at the Asia- Europe (ASEM) Seminar of Sustainable Management of Wastewater and Sanitation, Singapore, 26-27, June, 2015

5. C. Visvanathan and P. Jacob, "Nanotechnology Applications in Wastewater Treatment: The Road Ahead", Invited Keynote speech, 2nd International Workshop on "Energy, Environment and Ecosystem (3E) for Sustainable Development in Asian Countries, 26-27 February, 2015, Bali, Indonesia.

6. Ahmed, B., Khan, S. J., **Visvanathan, C.**, & Pillay, V. L. (2014). On-site Wastewater Treatment Using Membrane Based Septic Tank. Paper presented at the 4th IWA Regional Conference on Membrane Technology. 3-6 December 2014. Ho Chi Minh City, Vietnam

7. Asami, T., Katayama, H., **Visvanathan, C.**, & Furumai, H. (2014). Evaluation of virus efficiency in rapid sand filtration for risk assessment at a water treatment plant in Bangkok.

Paper presented at the 11th International Symposium on Southeast Asian Water Environment (SEAWE 11). 26 November 2014. AIT Conference Center, Bangkok,

Thailand

8. Chaikasem, S., Jacob, P., & **Visvanathan, C.** (2014). Performance evaluation of a two-stage thermophilic anaerobic membrane bioreactor for treating high strength particulate wastewater. Paper presented at the 4th IWA Regional Conference on Membrane Technology. 3-6 December 2014. Ho Chi Minh City, Vietnam

9. Jacob, P., Chimeng, M., & **Visvanathan, C.** (2014). Pilot scale study on second stage water recovery from cooling tower blow down. Paper presented at the 11th International Symposium on Southeast Asian Water Environment (SEAWE 11). 26 November 2014. AIT Conference Center, Bangkok, Thailand

10. Park, D. H., & **Visvanathan, C.** (2014). Water Treatment Technology Development Trajectory in South Korea. Paper presented at the 11th International Symposium on Southeast Asian Water Environment (SEAWE 11). 26 November 2014. Bangkok, Thailand

11. C. Visvanathan, "Resource Efficient and Cleaner Production in Textile Sector" invited technical panel member, UNDIO Green Industry Conference, Guangzhou, China, 7-9 November, 2013

12. C. Visvanathan, "Achieving Water Security through Wastewater Reuse" 4th International Conference on Sustainable Science, Mediterranean Challenges Towards Sustainability, Marseille, France, 16-18 September, 2013.

13. C. Visvanathan, "Waste Recycling Markets and Creating Green Jobs- Asian Perspective" , IPLA Global Forum 2013 on Sustainable Waste Management for the 21st Century Cities", City of Boras, Sweden, 9-11 September, 2013

14. C. Visvanathan, "Informal Sector in Waste Recycling", ***Invited Plenary Speaker,*** International Conference on Waste Management and Environment, University of Malaya, Kuala Lumphur, Malaysia, 26-27, August, 2013.

15. Zeshan and C. Visvanathan, "Effect of Organic Loading Rate on the Performance of a Pilot-scale Thermophilic Dry Anaerobic Digester Under High Recirculation Rate", 6th Annual Conference on the Challenges in Environmental Science & Engineering (CESE 2013), Daegu, Korea, 29 October-2 November 2013

16. C. Visvanathan, P. Khachonbun, R. Rattanaoudom and Paul Jacob, " Potential Membrane based Separation of Triethylene Glycol Wastewater from Gas Separation Plant", 6th Annual Conference on the Challenges in Environmental Science & Engineering (CESE 2013), Daegu, Korea, 29 October-2 November 2013

17. Zeshan and C. Visvanathan, "Digestate Management from Perspectives of GHG Emissions", 6th Annual Conference on the Challenges in Environmental Science & Engineering(CESE 2013), Daegu, Korea, 29 October-2 November,

    2013

18. C. Visvanathan, Phanwatt Phungsai & Paul Jacob, " Study on Flux and Fouling Interactions by Coupling Thermophilic Anaerobic Bioreactor Using Membrane Distillation Process", 6th Annual Conference on the Challenges in Environmental Science & Engineering(CESE 2013), Daegu, Korea, 29 October-2 November, 2013

19. Chaikasem, S., Jacob, P. and Visvanathan, C. Performance improvement in a two-stage thermophilic anaerobic membrane bioreactor using PVA-gel as biocarrier. *Proceeding of 2013 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers (IEEC2013)*, Seoul, South Korea, 11-13 June, 2013.

20. Chaikasem, S., Abeynayaka, A. and Visvanathan, C. "Effect of biocarrier on the acidogenesis process of twostage thermophilic anaerobic membrane bioreactor". *Proceeding of International Conference on Solid Waste 2013: Innovation in Technology and Management (ICSWHK 2013)*, 351-354 ,Hong Kong, 6-9, May, 2013.

21. Y.Hotta, C. Visvanathan, and M. Kojima, "Performance Indicators in 3Rs and Resource Efficiency: Monitoring the Progress of 3R Efforts Towards a Green Economy", Background Paper for the 4th Regional 3R Forum in Asia, Hanoi, Vietnam, 18-20 March, 2013

22. C.Visvanathan, "Developments and Future Potentials of Anaerobic Membrane Bioreactors", Invited Speaker, International Conference on Industrial Biotechnology, Patiala, India, 21-23, November, 2012

23. C.Visvanathan, "3R Pathway Towards Sustainable Landfill Management", ***Invited Keynote Speaker,*** 7th AsianPacific Landfill Symposium, Bali, Indonesia, 8-11 October, 2012

24. C. Visvanathan. "Public Private Partnership in Waste Management through IPLA: What does Private Sector Want?", IPLA Forum meeting on Empowering Municipalities in Building Zero Waste Society, Seoul, Korea, 5-6 September, 2012

25. C. Visvanathan, "Hazardous Waste Management in South East Asia: Concerns and Need for Capacity Building", ***Invited Keynote Speaker,*** ISWA Seminar and Workshop on "Status and Challenges for Hazardous Waste in the Asia Pacific Regions, Singapore, 24-26 April, 2012

26. Zeshan and C. Visvanathan, "Dry Anaerobic Digestion of Municipal Solid Waste: Potentials and Problems", 2nd International Conference on Anaerobic Digestion for Waste and Wastewater Treatment, Bangkok, Thailand, 26 April, 2012

27. C. Visvanathan and P. Kasyyap, " Policy Interventions: Breaking the barriers for 3R Technology transfer in Asia", The 10th Expert Meeting on Solid Waste Management in Asia and Pacific Islands (SWAPI), Tottori, Japan, 20-22 February, 2012.

28. C. Visvanathan, "Effective Polices and Institutional Framework as the Driver for Technology Transfer in the 3Rs" ***Key Note Position Paper Presentation,*** Regional 3R Forum in Asia, Singapore, 5-7 October, 2011.

29. Abeynayaka, A., Nguyen, T. T., Kandarith, S., Visvanathan, C., Abeynayaka, H. D. L., Kunavichayanont, V. (2011) Hand driven microfiltration system for drinking water supply at flood-like disasters: virus removal. The 4th IWA ASPIRE Conference, Tokyo international

forum, Tokyo, Japan. 2-6 October, 2011. (**This paper and the presentation won "Best Student Award" at the conference).**

30. Abeynayaka, A., Visvanathan, C., Kandarith, S., Hashimoto, T., Katayama, H., Yashuhiro, Y. (2011). Long-term studies on hybrid ceramic microfiltration applications in high DOM containing surface water treatment. The 4th IWA ASPIRE Conference, Tokyo international forum, Tokyo, Japan. 2-6 October, 2011.

31. N.P. Dan, B. X. Thanh, L.V. Khoa, P.T. Nga, and **C. Visvanathan**, "Potential of Wastewater Reclamation to Reduce Fresh Waster Stress in Ho Chi Minh City- Vietnam"*Conference on Challenges in Environmental Science and Engineering 2011*, Tainan City, Taiwan, 25-30 September, 2011.

32. R. Rattanaoudom and C. Visvanathan, "Hybrid nanofiltration for removal of PFOA in industrial wastewater", International Conference on Environmental Supporting in Food and Energy Security: Crisis and Opportunity (2011), Bangkok, Thailand, 22-25 March 2011.

33. Anand Deshmukh and C. Visvanathan, "3R as a Business Proposition: How Public-Private Partnership (PPP), Community Based Organizations (CBOs/NGOs) & Standalone Private Recycling (SPR) could contribute?,The 8th Expert Meeting on Solid Waste Management in Asia and Pacific Islands (SWAPI), Japan, Tokyo, 21-23 February,

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34. Abeynayaka A., Nguyen T., **Visvanathan C**., and Ariyamethee P. "Chemical-free and Carbon Neutral Membrane based Emergency Water Supply System", 8th International Symposium on Southeast Asian Water Environment, Phuket, Thailand. October 24 to 26, 2010. **(*This presentation won the "Award for Asian Young Professional on Water Research" as a recognition of most outstanding and promising performance in the symposium).***

35. **C. Visvanathan**, " Challenges and Opportunities with Green Technology Transfer on the 3R" Regional 3R forum in Asia, Kuala Lumpur, Malaysia, 4-6 October, 2010

36. R. Rattanaoudom and **C. Visvanathan**, "Removal of PFOA by Hybrid Membrane Filtration Using PAC and Hydrotalcite", *Conference on Challenges in Environmental Science and Engineering 2010*, Cairns, Queensland, Australia, 26 September- 1 October, 2010.

37. **C. Visvanathan**. "Community, Public & Private Sector Synergy: How Effective to Improve SWM Service?", *7th Expert Meeting on Solid Waste Management in Asia and Pacific Islands,* 15-17 September, Taipei, Taiwan, 2010

38. R. Rattanaoudom and **C. Visvanathan**, "Removal of PFOA by Hybrid Membrane Filtration Using PAC and Hydrotalcite", *Conference on Challenges in Environmental Science and Engineering 2010*, Cairns, Queensland, Australia, 26 September- 1 October, 2010.

39. **C. Visvanathan**. "Community, Public & Private Sector Synergy: How Effective to Improve SWM Service?", *7th Expert Meeting on Solid Waste Management in Asia and Pacific Islands,* 15-17 September, Taipei, Taiwan, 2010

40. Thu L.N**, C. Visvanathan ,** Chi Phan, Ming Ang, "Performance of *Mycobacterium Chlorophenolicum* Relative to Microorganism Isolated from Activated Sludge Treating Pentachlorophenol in MBR", *Chemeca 2010*, Adelaide, Australia, 26–29 September, 2010

41. **C. Visvanathan** and A. Prem Ananth**.** "Higher Education Needs for Solid Waste Management through 3R in Asian Developing Countries" invited lecture at International Conference on Raising Awareness of the Need for

    Environmental Protection: A Role for Higher Education" Hoa Sen University and An Giang University, Ho Chi Minh City, 21-23 July, 2010

42. **C. Visvanathan**. "Climate Change & Water Nexus: Gearing Academic Curriculum Towards Adaptation", *10th Science Council of Asia Conference*, 15-16 June, Manila, Philippines, 2010

43. G.B.B Hearth, A. Prem Ananth and **C. Visvanathan**, "Enhancing Environmental Sustainability in Dambulla Dedicated Economic Centre: Industrial Networking for Waste Management" , 9th Asia Pacific Roundtable for Sustainable Consumption and Production, Colombo, Sri Lankan, 10-12, June, 2010

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89. **C. Visvanathan** and P. Shapkota. Sustainability through Development of Environmental Technologies. . In: *International conference on Integration of Science and Technology for Sustainable Development*, KMITL, Bangkok, Thailand. Guest Speaker, 25-26 August 2004.

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91. Q.T.T. Thuy and **C. Visvanathan.** Treatment of inhibitory phenolic compounds in membrane bioreactor. In: *Water Environment – Membrane Technology, IWA Specialist Group Conference*, Seoul, Korea, 7-10 June 2004.

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International Seminar on Hazardous and Solid Waste, Melbourne, Australia, 8-12 May 1994.

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140. **C. Visvanathan.** Waste Minimization: Profitability of Process Modification in Pollution Control. In: *National Seminar on Implementing Effective Industrial Waste Management Strategies in Thailand*, Bangkok, Thailand, 26-27 January 1994.

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10. SPECIAL AWARDS AND HONORS

- Government of Switzerland Scholarship to take Masters Program in AIT.
- Government of France, Ministry of External Affairs Scholarship to take PhD program in France.
- Best Teaching Award - 2005 for the course *ED78:20 Industrial Waste Abatement and Management.*

- Invited as Visiting Scholar of the EU- Joint European Master Program in Environmental Studies (JEMES), from May- August, 2008, at the Institute of Wastewater Management and Water Protection, Technical University of Hamburg – Harburg, Germany.
- Best Reviewer award by Journal of Bioresources Technology, Elsevier Publications, 2014
- Invited as Visiting Faculty from July – August, 2007 at the Department of Chemical Engineering, Durban University of Technology, Durban, South Africa.
- Visiting Professor at the Institute for Environmental Science and Technology, Hanoi University of Technology, Hanoi, Vietnam.
- External Curriculum Reviewer for the School of Chemical Engineering, Universiti Sains Malaysia, Pinang, Malaysia, From 2009 to 2010
- Invited to serve as a Visiting Professor, Faculty of Environment, HCMC University of Technology, Vietnam for 3 years from 1 December, 2010
- Visiting Professor, from June- July 2012, Japan Society for Promotion of Science, University of Tokyo, Japan
- Among the list of 50 leading researchers of Thailand based on number of Research Publications from 1 January 2008 to 31 December 2008.

11. MEMBER IN JOURNAL EDITORIAL BOARD

- Associate Editor – Asia. *Journal of Waste Management*, Elsevier Publishers, From January 2009 – 2013
- Associate Editor – Global Journal of Environmental Science and Technology, from July, 2010
- Editorial Board, *Bioresource Technology*, Elsevier Publishers, From December 2007
- Editorial Board, *Reviews in Environmental Science & Bio/Technology*, January 2009
- Editorial Board, International Journal of Membrane Water Treatment: http://technopress.kasit.ac.kr, from January 2010.

- Advisory Board Member, UNIDO – Green Industry Platform, from 2012
- *Guest editor for the October- December, 2010 issue of J. of Energy Manager.*
- Invited Guest Editor for Volume: 17, Issue 7, Journal of Cleaner Production, Theme: Present and Anticipated Demands for natural Resources: Scientific, Technological, Political, Economic and Ethical Approaches for Sustainable Management. With: Dr. V. Jegatheesan., 2009
- Board of Advisors, *Canadian Journal of Pure and Applied Sciences*
- Board of Advisors, *Asian Journal of Microbiology, Biotechnology and Environmental Sciences*

Editorial Board, *Agricultural Engineering Society of Sri Lankan* (ISBN: 1391-0671)

- Technical Advisor, Trade Journal *ET4Thai (Environmental Technologies for Thai Industries)* (ISBN: 1686-4166) Technical Advisor and Scientific Editor, *Energy & Environment News Letter - AIT*