

## Staff Handbook- Bui Xuan Thanh

Name ( Họ và Tên)	<i>Bui Xuan Thanh</i>		
Post ( Vị trí)	<i>Head of Department, Head of VNUHCM Key Laboratory</i>		
Academic career ( Quá trình đào tạo)	<i>Initial academic appointment</i>	<i>Institution</i>	<i>Year</i>
	PhD, Environmental Engineering (French Government full scholarship, Exchange program)	<i>Asian Institute of Technologyn (AIT), Thailand &amp; Institut National des Sciences Appliquees de Toulouse (INSA-Toulouse), France</i>	2006 - 2009
	<i>M.Eng, Environmental Engineering</i>	<i>Asian Institute of Technologyn (AIT), Thailand</i>	2003 – 2005
	<i>Engineer Degree, Chemical Engineering,</i>	Ho Chi minh University of Technology, VNU-HCM, Viet Nam	1996 – 2001
Employment ( Nghề nghiệp)	<i>Position</i>	<i>Employer</i>	<i>Period</i>
	<i>Head, VNU-HCM Key Laboratory of Advanced Water Treatment Technology</i>	<i>Vietnam Naional University Ho Chi Minh (VNU-HCM)</i>	2020-present
	<i>Head, Dept. Of Water Ccience and Technology,</i>	Faculty of Environment & Nature Resources. Ho Chi Minh City University of Technology (HCMUT)	2014 – present
	<i>Associate Professor</i>	HCMUT	2013-present
Research and development projects over the last 5 years ( Thành tích dự án và nghiên cứu trong năm gần )	<i>Name of project or research focus ( Tên dự án, đề tài):</i>		
	1. <i>Development of algae – bacteria systems for wastewater treatment (2021-2026; VNU-HCM);</i>		
	2. <i>Nanoassited bioremediation of diffused dioxins in soil and sediment (Co-Pi) (2021 – 2023; PEER – NAS; USA);</i>		

	<ol style="list-style-type: none"> <li>3. <i>Testin of F-Cap fiber filtration system for various water source (2021, Kyowakiden, Japan,.....)</i></li> <li>4. <i>Developmet of membrane bioreactor coupling with salt tolerant microorganism treating saline wastewater (VNU-HCM; 2020 – 2021)</i></li> <li>5. <i>Fouling control and Nutrient Removed by Reciprocating Membrane Bioreactor (2020; SATU 2020, Taiwan);</i></li> <li>6. <i>Enhance Organic and Nutrient Removal form Wastewater by Algae Granulation (2020; SATU 2020, Taiwan);</i></li> <li>7. <i>Development of Novel Multifunctional Nanostructured Materials for the Photocatylic Degradation of Emerging Pollutants (Co-Pi as Asean Partner) (2019 – 2020; Asean – India Science &amp; Technology Development Fund)</i></li> <li>8. <i>International Cooperation on Soil and Groundwater Remediation (2019; Taiwan Association on Soil &amp; Groundwater Environmental Protection &amp; Taiwan EPA);</i></li> <li>9. <i>Application of energy-saving membrane technology in nutrient treatment and microplastics removal (2018 – 2019; University’s Research Project – CARE);</i></li> <li>10. <i>Application of Membrane photobioreactor for wastewater treatment coupling with algae biomass cultivation for production of biomaterials (2019 – 2022; Nafosted, Ministry of Science &amp; Technology – Viet Nam)</i></li> <li>11. <i>Energy – efficient water management system for an industrial park in Vietnam (ERWIN), (2018 – 2019; Federal Ministry of the Environment, Germany)</i></li> <li>12. <i>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)</i></li> <li>13. <i>Wastewater treatment for Textiles and Dyeing Industrial by Membrane Bioreactor Coupling with Advanced Oxidation Processes (2010 – 2011; JICA-Japan)</i></li> </ol>
<p>Industry collaborations over the last 5 years (Hợp tác với doanh nghiệp)</p>	<ol style="list-style-type: none"> <li>1. <i>Survey, performance evaluation and proposing appropriate technology improvement for 15 wastewater treatment systems of Saigon-Coop supermarket chain (COOP)</i></li> <li>2. <i>Improvement of water envirotment of Trang Bang Industrial Part, Tay Ninh province (Trang Bang Industrial Park)</i></li> <li>3. <i>Improvement of Water environment of Le Minh Xuan Industrial Park, Binh Chanh District, HCMC (Le Minh Xuan Industrial Park)</i></li> </ol>

	<p>4. <i>The solution to increasing nitrogen removal capacity in the wastewater treatment system of Linh Trung Industrial Park 3 with a capacity of 4000 m<sup>3</sup>/day (Linh Trung Industrial Park 3.</i></p>								
<p>Patents and proprietary rights ( Sở hữu trí tuệ)</p>	<table border="1"> <thead> <tr> <th data-bbox="528 293 1161 338">Title</th> <th data-bbox="1161 293 1426 338">Year</th> </tr> </thead> <tbody> <tr> <td data-bbox="528 338 1161 629"> <p>1. <i>Ngo Thi Tra My, Nguyen Cong Nguyen (2020). A submerged tubular membrane distillation (STMD) method and apparatus for desalination, <b>US Patent</b></i></p> </td> <td data-bbox="1161 338 1426 629"> <p>submitted 2020</p> </td> </tr> <tr> <td data-bbox="528 629 1161 808"> <p>2. <i>Wetland roof technology for treating domestic wastewater (US Patent 9884780B2)</i></p> </td> <td data-bbox="1161 629 1426 808"> <p>2018</p> </td> </tr> <tr> <td data-bbox="528 808 1161 1137"> <p>3. <b>Bui Xuan Thanh</b> &amp; Nguyen Phuong Thao (2020). <i>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</i></p> </td> <td data-bbox="1161 808 1426 1137"> <p>2019</p> </td> </tr> </tbody> </table>	Title	Year	<p>1. <i>Ngo Thi Tra My, Nguyen Cong Nguyen (2020). A submerged tubular membrane distillation (STMD) method and apparatus for desalination, <b>US Patent</b></i></p>	<p>submitted 2020</p>	<p>2. <i>Wetland roof technology for treating domestic wastewater (US Patent 9884780B2)</i></p>	<p>2018</p>	<p>3. <b>Bui Xuan Thanh</b> &amp; Nguyen Phuong Thao (2020). <i>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</i></p>	<p>2019</p>
Title	Year								
<p>1. <i>Ngo Thi Tra My, Nguyen Cong Nguyen (2020). A submerged tubular membrane distillation (STMD) method and apparatus for desalination, <b>US Patent</b></i></p>	<p>submitted 2020</p>								
<p>2. <i>Wetland roof technology for treating domestic wastewater (US Patent 9884780B2)</i></p>	<p>2018</p>								
<p>3. <b>Bui Xuan Thanh</b> &amp; Nguyen Phuong Thao (2020). <i>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</i></p>	<p>2019</p>								
<p>Important publications over the last 5 years ( Bài Báo nổi bật trong 5 năm gần)</p>	<ol style="list-style-type: none"> <li>1. <i>Hoang H.G., Chiang C.F., Lin C., Wu C.Y., Lee C.W., Cheruiyot N.K., Tran H.T., <b>Bui X.T.</b> (2021). Human Health Risk Simulation and Assessment of Heavy Metal Contamination in a River Affected by Industrial Activities, <i>Environmental Pollution</i>, 285, 117414. (SCIE, Q1, IF: 6.792, ISSN: 0269-7491).</i></li> <li>2. <i>Nguyen T.T., <b>Bui X.T.*</b>, 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, <i>Science of The Total Environment</i>, 785, 147423 (SCIE, Q1, IF: 6.511, ISSN: 0048-9697).</i></li> <li>3. <i>Dang B.T., <b>Bui X.T.*</b>, 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, <i>Science of the Total Environment</i>, 773, 145041. (SCIE, Q1, IF: 6.511, ISSN: 0048-9697).</i></li> <li>4. <i>Tran H.T., Lin C.T.* <b>Bui X.T.*</b>, 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, <i>Chemosphere</i>, 265, 129064. (SCIE, Q1, IF: 5.778; ISSN: 0045-6535).</i></li> <li>5. <i>Ngô H.H., <b>Bui X.T.</b>, Nghiem D. Long, Guo W. (2020). Green Technologies for Sustainable Water (Editorial), <i>Bioresource Technology</i>, 317, 123978. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524)</i></li> <li>6. <i>Nguyen T.T.D., Nguyen T.T., Binh Q.A., <b>Bui X.T.*</b>, 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, <i>Bioresource Technology</i>, 314, 123754. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524)</i></li> </ol>								

	<p>7. <b>Bui X.T.*</b>, Vo T.D.H., Thao N.P., Nguyen V.T., Dao T.S., Nguyen P.D. (2020). <i>Microplastics pollution in wastewater: characteristics, occurrence and removal technologies</i>, <i>Environmental Technology &amp; Innovation</i>, 19, 101013 (SCIE, Q1, IF: 3.356, ISSN: 2352-1864).</p> <p>8. Li M.H, Lin K.Y.* , Yang M.T. <b>Bui X.T.*</b>, Tsang D.C.W., (2020). <i>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</i>, <i>Chemosphere</i>, 244, 125444. (SCIE, Q1, IF: 5.778; ISSN: 0045-6535).</p> <p>9. Vo H.N.P., Le G.K., Nguyen T.M.H., <b>Bui X.T.*</b>, Nguyen K.H., Rene E.R., Vo T.D.H, Cao N.D.T., Mohan R. (2019). <i>Acetaminophen micropollutant: Historical and current occurrences, toxicity, removal strategies and transformation pathways in different environments</i>, <i>Chemosphere</i>, 236, 124391. (SCIE, Q1, IF: 5.778; ISSN: 0045-6535).</p> <p>10. T.D.H Vo T.D.H., <b>Bui X.T.*</b>, Nguyen D.D., Nguyen V.T., Ngo H.H., Guo W., Nguyen P.D., Nguyen C.N., Lin C. (2018). <i>Wastewater treatment and biomass growth of eight plants for shallow bed wetland roofs</i>, <i>Bioresource Technology</i>, 247, 992-998. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).</p> <p>11. Vo, C.T. Vu, Lin C.* , <b>Bui X.T.*</b>, Erh, W.C., T.K.O. Nguyen, Shin, Y.C., Rene E.R. (2019). <i>An overview of the development of vertical sampling technologies for ambient volatile organic compounds (VOCs)</i>, <i>Journal of Environmental Management</i> 247 (2019) 401–412. (SCIE, Q1, IF: 5.647, ISSN: 0301-4797).</p> <p>12. Nguyen T.T, <b>Bui X.T.*</b>, Dang B.T, Ngo H.H., Jahng D., Fujioka T., Chen S.S., Dinh Q.T., Nguyen N.C., Nguyen P.T.V. (2019). <i>Effect of Ciprofloxacin dosage on the performance of sponge membrane bioreactor treating hospital wastewater</i>, <i>Bioresource Technology</i>, 273, 573-580. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).</p> <p>13. Vo H.N.P., <b>Bui X.T.*</b>, Nguyen T.M.H., Koottatep T &amp; Bandyopadhyay A. (2018). <i>Insights of the Removal Mechanisms of Pharmaceutical and Personal Care Products in Constructed Wetlands</i>, <i>Current Pollution Reports</i>, 4, 93-103. (SCIE, IF: 6.000, ISSN: 2198-6592)</p> <p>14. 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). <i>Wastewater treatment and biomass growth of eight plants for shallow bed wetland roofs</i>, <i>Bioresource Technology</i>, 247, 992-998. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).</p> <p>15. Tin N.T., <b>Thanh B.X.*</b>, Phuc L.V., Dan N.P., Guo W., Ngo H.H. (2017). <i>Removal of antibiotics in sponge membrane bioreactors treating hospital wastewater: Comparison between hollow fiber and flat sheet membrane systems</i>, <i>Bioresource Technology</i>, 240, 42-49. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).</p> <p>16. 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). <i>High rate nitrogen removal by ANAMMOX internal circulation reactor (IC) for old landfill leachate treatment</i>, <i>Bioresource Technology</i>, 234, 281-288. (SCIE, Q1, IF: 7.539, ISSN: 0960-8524).</p>									
<p>Activities in specialist bodies over the last 5 years ( Hoạt động cá nhân đặc trưng trong 5 năm gần)</p>	<table border="1"> <thead> <tr> <th>Organisation</th> <th>Role</th> <th>Period</th> </tr> </thead> <tbody> <tr> <td>NAFOSTED</td> <td>Member</td> <td>2017 – 2019, 2019 – 2021, 2020 – 2022</td> </tr> <tr> <td>Bioresource Technology (BITE, Elsevier, SCIE, Q1),</td> <td>Editor Board Member</td> <td>2020</td> </tr> </tbody> </table>	Organisation	Role	Period	NAFOSTED	Member	2017 – 2019, 2019 – 2021, 2020 – 2022	Bioresource Technology (BITE, Elsevier, SCIE, Q1),	Editor Board Member	2020
Organisation	Role	Period								
NAFOSTED	Member	2017 – 2019, 2019 – 2021, 2020 – 2022								
Bioresource Technology (BITE, Elsevier, SCIE, Q1),	Editor Board Member	2020								

	<p><i>The 2<sup>nd</sup> Green Technologies for Sustainable Water (GTSW) Conference – 2019</i></p>	<p><i>General Chair</i></p>	<p><i>2019</i></p>
	<p><i>Taiwan-Vietnam Workshop on “Groundwater and Soil Contamination and Remediation”,</i></p>	<p><i>Chairman</i></p>	<p><i>2019</i></p>
	<p><i>The 5<sup>th</sup> International Symposium of Environmental Analytical Chemistry (ISEAC 5 – Asia),</i></p>	<p><i>Co -Chair</i></p>	<p><i>2017</i></p>