# **CURRICULUM VITAE**

#### PERSONAL DATA

Name: NGUYEN VIET ANH, Associate Professor, PhD. (Male)

Date of birth: December 16<sup>th</sup>, 1968

Nationality: Vietnamese

Position: Director, Institute for Environmental Science and Engineering (IESE), Hanoi University of Civil Engineering (HUCE). Head of Water Supply and Sanitation Division, Department of Environmental Engineering (DEE), HUCE.

Office address: Hanoi University of Civil Engineering (HUCE). 55 Giai Phong Road, Hanoi, 10000,

Viet Nam

Office Tel.: +84-4-38691604 Fax: +84-4-38693714

Mobile phone: 091320 9689 (From overseas: +84-91320.9689)

E-mail: vietanhctn@yahoo.com; anhnv@nuce.edu.vn.

Civil status: Married, two children.

#### **KEY OUALIFICATIONS**

Associate Professor, PhD. Viet-Anh Nguyen is Director, Institute of Environmental Science and Engineering (IESE), Hanoi Civil Engineering University, Vietnam. He has about 20 years experience in water supply and sanitation sector, spending number of efforts in research and development of efficient water supply, low-cost decentralized sanitation systems, sludge and fecal sludge management, appropriate for the developing countries. Participation of local users and private sector, development of water and sanitation industry, adaptation with climate change challenges are also among his main interests.

Mr. Nguyen has experiences in long-term and short-term water sector capacity building, engineering and managerial aspects of water supply and sewerage systems. He has been actively devoting his time for education and training for water supply and sanitation specialists in Vietnam. He was also co-supervising or hosting number of international under-graduate and post-graduate students from other countries including UK, USA, Germany, Spain, Laos, Japan, Mexico, Netherlands, etc.

PhD. Nguyen has been being involved in a number of consultancy works on sector and inter-sector policy development and appraisal; project design, construction, bid evaluation, monitoring and evaluation; O&M of water and wastewater systems; local capacity building; etc. in Vietnam. He has been working with a number of key sector organizations, including Vietnamese ministries: Construction - MOC, Planning and Investment - MPI, Health - MOH, Industry and Trade - MOIT, Agriculture and Rural development - MARD, Natural Resources and Environment - MONRE, Science and Technology – MOST, etc. He has also close connections and plays as a key Vietnamese resource person for International Water Association - IWA, Sustainable Sanitation Alliance – SuSanA, Environmental Program UNEP, UNICEF, WHO, WB, ADB, BMGF, other international organizations. PhD. Nguyen has received some prestige prizes for his achievements in scientific research activities.

Recently Assoc. Prof. Nguyen has been nominated as a Head of Science and Technology Department, Vietnam Association of Water Supply and Sewerage (VWSA), and also Vice President, Vietnam Association of Civil Engineering Environment (VACEE). VWSA is a largest professional society in Vietnam dealing with water supply and sanitation, while VACEE is now focusing on promotion of Green Building Concept in Vietnam.

### **EDUCATION**

- 2014: The Asian Development Bank (ADB) Water Operators Partnership Program WaterLinks Indah Water Konsortium (IWK), Malaysia. A Master Class on Septage Management. Kuala Lumpur, Malaysia.
- 2008: The Water and Sanitation Program (WSP), administered by the World Bank. Training Course on Participatory Facilitation, in the context of the Sanitation and Water partnership for the Mekong Region (SAWAP). Certificate.
- 2008: Institute for Microbiology and Biotechnology, VNU. Training Course on Environmental Microbiology. Certificate.
- 2007: WHO Singapore PUB. Training Course for Trainers. Water safety plans (WSP). Certificate.
- 2006: MONRE GTZ. Training Course. Strategic Environmental Assessment (SEA). Training of Trainers (ToT) Course. Certificate.
- 2005: NIURP, MOC SERD, AIT. Professional Training Program. Community Participation in Developing Urban Environmental Services in Southeast Asia. Certificate.
- 2003: The Network of Universities and Institutions for Asia-Pacific Peace-Building and Conflict Prevention, Mahidol University and the University for Peace. Inter-University Short Executive Program. Natural Resource Conflicts and Environmental Security: New Vulnerability and New Vigilance. Certificate.
- 2002: Vietnam National Institute of Hygiene and Epidemiology, Denmark Royal Vetenerary and Agricultural University. Technology and Sanitary Aspects of Low-cost Wastewater Treatment for Potential Use in Agriculture and Aquaculture. Certificate.
- 2002: International Water Association IWA SKATMK, Turkey. Small Water and wastewater treatment systems. Certificate.
- 2001: National University of Singapore. Training Course. Water and Wastewater Treatment Plants: Theory & Design. Certificate.
- 2000: EURO Summer School, Wageningen, the Netherlands.
  Training Course. Decentralized Sanitation and Reuse (DESAR). Certificate.
- 2000: MASHAV CINADCO, Israel. Training Course. Management of Water Resources for Urban and Agricultural Use. Certificate.
- 1998: US ETI Metcalf & Eddy International, Inc VIWASE.

  Training Course. Municipal Wastewater Treatment Systems. Certificate.
- 1996 1998: National Academy of Administration.

  Bachelor, Public Administrative Management.
- 1995 1998: Hanoi College of Foreign Trade. Bachelor. English Language.
- 1991 1995: Moscow University of Civil Engineering. Ph.D. Wastewater Treatment Technology.
- 1986 1991: Moscow University of Civil Engineering. Engineer, Water Supply and Sewerage.

# **PROFESSIONAL POSITION**

 Director, Institute for Environmental Science and Engineering (IESE), Hanoi University of Civil Engineering (HUCE).  Head of Water Supply and Sanitation Division, Department of Environmental Engineering (DEE), HUCE.

### PROFESSIONAL SOCIETY ACTIVITIES

- Vice President, Vietnam Association for Civil Engineering Environment (VACEE).
- Member of Executive Board, Head of Science & Technology Department, Vietnam Water Supply and Sewerage Association (VWSA).
- Individual member of International Water Association (IWA).
- Founder, Member of the Executive Board, Vietnam Green Building Council (VGCB).
- Registered ASEAN Engineer (ASEAN Engineers Register AFEO).

#### **FOREIGN LANGUAGE**

	Listening	Speaking	Reading	Writing
Vietnamese:	Mother tongue			
English:	Excellent	Good	Excellent	Good
Russian:	Excellent	Good	Excellent	Good

#### EMPLOYMENT EXPERIENCE

1996 – to presence: Lecturer, Hanoi Civil Engineering University.

1991 – 1995: Director, VIAL Co. Ltd., Consulting firm in water and wastewater engineering.

*Countries of work* (including short-term): Vietnam, Russia, Laos, Cambodia, Germany, Japan, Korea, USA, Switzerland, Sweden, UK, France, Netherlands, China, Thailand, Philippines, Australia, etc.

### Areas of interests:

- Low-cost and sustainable water supply and sanitation in developing countries;
- Water and wastewater treatment technologies;
- Sewage sludge treatment; Fecal sludge management;
- Water chemistry, water quality control and monitoring, environmental sanitation and public health;
- Operation and maintenance (O&M) of waste and wastewater systems; Water safety plans (WSP).
- Environmental impact assessment (EIA), Strategic environmental assessment (SEA).
- Climate change adaptation, water and energy nexus, material flow analysis, green building related issues.

# Teaching above courses (in Vietnamese and English) at:

- under-graduate and post-graduate levels (Bc., MSc., PhD.) at universities and research institutes;
- short training for trainers (ToT), managers and staff from central and local governmental organizations, water supply and sewerage companies, water supply, sanitation and urban infrastructure development projects, for private sector, for international organizations in Vietnam, foreign delegates, and for the different local communities.

PhD research supervisions:

MSc. research supervisions:

MSc. research co-supervision for international students:

Examinership for more than 200 MSc. and PhD theses.

Supervision, examinership for more than hundred of diploma works.

*Peer reviewer* for number of scientific papers for different international and national journals such as Springer's Tropical Medicine and International Health (TMIH), International Journal of Water Resources and Environmental Engineering (IJWRE), Environmental Science and Bio-Technology (RESB), VWSA Journal of Water Supply and Sewerage, etc.

*Peer review* for number of study reports for different international and national organizations such as WSP/World Bank, Ministry of Natural Resources and Environment (MONRE), etc.

Scientific and Organizational Committee Chair/Member/Jury for different international and national workshops, conferences, awards, such as: IWA Conference "Sanitation Options for developing countries", Hanoi, Vietnam, November 2008; IWA Conference and Exhibition "Decentralized wastewater treatment solutions in developing countries, Surabaya, Indonesia, March 2010; Singapore International Water Week SIWW 2010; IWA Young Professionals' Prize 2010; IWA Water and Wastewater Conference, Kuala-Lumpur, 2011; Singapore International Water Week SIWW 2011; IWA ASPIRE Conference, Tokyo, 2011; etc.

#### **Research activities:**

- Rainwater management for low-income communities (S.I.R project). Rain Research Centre (RRC), Seoul National University IESE, HUCE. Vietnam Project Team Leader. KOICA fund. 2015 2016.
- Characterization and Pilot Studies to Assess Fecal Sludge Treatment and Resource Recovery Technologies (PURR project). SANDEC/EAWAG (Switzerland) IESE (Vietnam). (Local study team leader). 2013 2015.
- Rainwater harvesting and treatment for supply of drinking water to community using ozone process in H.O.P.S system. Rain Research Centre (RRC), Seoul National University
   - IESE, HUCE Eco-protect Company. Vietnam Project Team Leader. KEITI fund. 2015.
- Development and Testing of the new Ecological Toilet for the Vietnamese conditions. 2009 2012 (phase 1), 2013 2014 (Phase 2). IESE INAX (LIXIL) Corporation (Local study team leader).
- Rainwater management. Rain Research Centre (RRC), Seoul National University IESE, HUCE H2L Company. Vietnam Project Team Leader. 2013 2015.
- New concepts for on-site sanitation based on bio-additives and pit design. The research project is led by the London School of Hygiene & Tropical Medicine (LSHTM), funded by the Bill and Melinda Gates Foundation. The research component in Vietnam (2011 2012. Team leader: Nguyen Viet Anh) involves full physico-chemical characterization of pit latrines, adjacent soil assessment and biochemical analysis for key markers of decomposition, pathogen die-off, and, preparation of samples for specific techniques only available in a few locations, such as DNA sequencing and biodegradability (Wageningen University).
- Landscape Analysis and Business Model Assessment in Fecal Sludge Management: Extraction & Transportation Models in Vietnam. The international research project conducted in 5 Asian and 5 African countries funded by the Bill and Melinda Gates Foundation. The research in Vietnam (2011. Team leader: Nguyen Viet Anh) involved characterization of emptying, transportation, treatment and disposal of fecal sludge in Hanoi, Hai Phong, Ho Chi Minh as representing cities. Financial statement and financial analysis for 20 public and private enterprises have been conducted. Different scenarios for fecal sludge management model improvement has been considered where sludge was proposed to be managed in a more sustainable way, keeping at the same time interest and benefit from the

business of the involved enterprises. Solutions and recommendations were made to the city decision makers.

■ Integrated Solutions for semi-centralized supply and disposal systems in urban areas – A case study in Hanoi, Vietnam (Semi-San). 2009 – 2011 (Vietnam Project Manager). Hanoi University of Civil Engineering – Technical University of Darmstadt, under support of Ministry of Science and Technology (MOST), Vietnam and Ministry of Education and Research (BMBF), Germany.

The main objective of the co-operative project is the development of a semi-centralized solution, to equip both existing and new settlement areas with an integrated system with treatment capacities for the different wastewater fractions as well as organic waste. This is to be realized via semi-centralized supply and disposal units that are "as small as possible and as big as necessary". Thus they allow for flexible adaptation to the changing situation in fast growing urban areas. A central aim is a smooth and sustainable operation of the units especially concerning drainage and disposal of septic tank sludge that is to be used for biogas production by combining it with bio-waste. The produced biogas offers the energy self-sufficient operation of the treatment plants.

- Co-treatment of organic waste and septic tank sludge for cities in Vietnam. 2010. Hanoi University of Civil Engineering University of Kitakyushu (Japan). Join experimental study. Funded by EBARA and Kitakyushu city.
- Application of MF membrane technology to supply rainwater for drinking water. Hanoi University of Civil Engineering (HUCE) Seoul National University (SNU), under the support of the SNU R&DB foundation. 2009 2011. (Vietnam Project Manager). The purpose of the research project is an eestablishment of combined rainwater harvesting, rainwater tank and MF membrane system in the HUCE campus, and provision of the design and operation guideline to supply rainwater for drinking as well as other purposes. The project is to promote sustainable rainwater harvesting and management in urban areas in Vietnam to combat with climate change associated problems.
- Compiling of Technical Guidelines for design, construction and O&M of low-cost decentralized sanitation systems in small towns of Vietnam. 2007 2008 (Research team leader). VACEE, for the Ministry of Construction (MOC). The study team has to review existing/available low-cost sanitation systems which are considered appropriate and sustainable for small towns with different contexts in Vietnamese regions, gather existing experiences, and, develop the Technical Guidelines for design, construction and manage those systems. The research outcomes will be used in planning, design, construction and O&M of collection and treatment of sanitation systems, in urban infrastructure management, in research, education and training in water supply and sanitation, as well as in further development of national/sector technical codes.
- Promotion of pilot community-based environmental protection model in delta area in Vietnam: Demonstration project in Lai Xa village, Ha Tay province. 2006 2007 (Research team leader). CEETIA, for the Ministry of Natural Resources and Environment (MONRE). This research project is continuing the successful community-based project in Lai Xa supported by the International NGO YWAM (2003 2006). The scope of activities include designing of awareness raising campaigns, setting up of community-based master plan for water supply and sanitation system, creation and sustaining of source separation solid waste management system with composting of organic waste, design and construction of local drainage network, design and construction of clustered wastewater treatment stations, setting up of managerial system and financial mechanism for sustaining of the community-based environmental sanitation model, and, analysis of lessons learned for the model scaling up. Results of the project have been presented as one of Vietnamese good sanitation practices at the 1<sup>st</sup> East Asia Ministerial Conference on Sanitation in Beppu, Japan, 29<sup>th</sup> Nov. 1<sup>st</sup> Dec., 2007.

- Study on application of Dissolved air flotation (DAF) methods for treatment of surface and ground water in Vietnamese conditions. 2007 2008. Management organizations: Ministry of Construction (MOC), and the Department of Science and Technology of Hanoi city. Implementing Institution: IESE and Vietnam Association of Civil Engineering Environment (VACEE).
- Setting up the guideline for design, construction and management of on-site sanitation systems: Septic tank in flood area, and double-vault composting toilet. 2008. Research partner, under the study by Department of Preventive Medicine and Environment, Ministry of Health and UNICEF Vietnam.
- Setting up the guideline for human excreta treatment. 2008 2009. Research partner, under the study of Department of Preventive Medicine and Environment, Ministry of Health and UNICEF Vietnam.
- Setting up the design guideline for urban engineering infrastructure. Water and wastewater sections. 2006 2007. Research partner. In the framework of program for updating and revising of Vietnamese Construction Codes. Ministry of Construction Vietnam Association of Civil Engineering Environment (VACEE).
- Appropriate decentralized sanitation options for urban and peri-urban areas in Vietnamese conditions (DESA). 2003 2007 (phase 2) and 1998 2002 (phase 1). (Research sub-project Team Leader). The Capacity Building project ESTNV. CEETIA (Vietnam) SANDEC, EAWAG (Switzerland). SDC support. The main objectives of the research sub-project were to evaluate and describe the sanitation situation in urban areas of Vietnam, to estimate the potential and limitations of decentralized wastewater management concepts for urban and peri-urban areas in Vietnam, to determine simple ways how to increase the treatment efficiency of septic tanks, and to give guidance to practitioners on how to design, to operate and maintain improved septic tanks in urban and peri-urban areas of Vietnam. This sub-project has brought main contribution for more than 10 international and national publications, installation of more than 30 low-cost wastewater treatment systems in different areas, execution of more than 10 training courses, and setting up of the Design Standard for septic tank and improved septic tank of the Ministry of Construction in Vietnam.
- Demonstration community-based waste management project for 2 communities in Thanh tri district, Hanoi sub-urb, along Nhue river sides, 2005 2006 (Deputy team leader). IWEET, for Vietnam Environment Protection Agency (VEPA). The project has developed environmental sanitation master plan for 2 communes of Huu Hoa and Ta Thanh Oai, construction of 2 low-cost wastewater treatment stations and 1 composting station for organic waste management, which are now well functioning.
- Capacity building for implementation of Strategic Environment Assessment (SEA) in Vietnam: Pilot SEA on Master Plan for Socio-economic development of the Ha Tay province for the period up to 2020, 2005 – 2006 (Principal investigator). CEETIA, for MONRE.
- Viability of domestic wastewater treatment by using a combination of (Improved) Septic Tank and Sub-surface Flow Constructed Wetland, 2003 2005 (Principal investigator). A joint research between CEETIA and IFM, Linkoping University (Sweden). SAREC, SIDA fund.
- **Development of Training Material on Low-Cost and Sustainable Sanitation.** 2003 2005. (Project Manager). Hanoi University of Civil Engineering (HUCE, Vietnam) Linkoping University (LiU, Sweden) Technical University of Hamburg Harburg (TUHH, Germany) University of Leeds (UoL UK). EU-ASIA link program. EU support.
- Scientific basics for selection of low-cost sanitation alternatives in Vietnamese conditions, 2003 2004 (Study team leader). Research project under MOET (Code B2003–34–45). The research covered technical, managerial, social and economical aspects of

- different sanitation options which are being considered together in a developed comprehensive sanitation selection algorithm.
- Evaluation and proposal of technical measures for nitrogen ammonia removal from ground water in Hanoi city. 1999 2004 (Principal Investigator). Joint research between CEETIA, HUCE and Kumamoto University (Japan).
- Experimental study on upgrading of An Duong water treatment plant, Hai Phong city from 120,000 to 160,000 cmpd by application of dual media filters with quartz sand and anthracite. 2002 2003 (Investigator). Soil & Water Co. Ltd. (Finland) Hai Phong Water Supply Co.
- Experimental study on anaerobic treatment of domestic wastewater by UASB reactor. 2002 2003 (Principal investigator). Joint research between CEETIA and EBARA Co. (Japan).
- Study on development of water supply and sanitation for village sustainable development. A case study in Cat Ba Island. 2002 2003 (Sub-project team leader). Vietnam Association for Natural Resources and Environment Protection (VACNE).
- Wastewater management and reuse for rice irrigation in handcraft villages. 2001 2002 (Investigator). Joint R&D project between CEETIA and Institute of Water Resources, Ministry of Agriculture and Rural Development (MARD), under National Research Program KC.07.
- Setting up the Guidelines for preparation of State of Environment (SOE) report for the Trade sector. 2001 2002 (Investigator). Study under Ministry of Trade (MOT) and Ministry of Science, Technology and Environment (MOSTE).
- Appropriate technologies for arsenic removal from ground water in Hanoi city. 1999 2002 (Researcher). Join research project among CEETIA, CETASD (Vietnam National University), SANDEC, EAWAG (Switzerland).
- Study on implementation of Japanese advanced combined septic tank (Jokasho) for domestic wastewater treatment in Hanoi city. 1997 - 2002 (Principal investigator). Join R&D project of CEETIA, Neo-Nishihara, Urban Wing Co. and JAVITECHS Japan).
- Decentralized wastewater treatment systems (DEWATS). 1998 2002 (Principal Investigator). Research sub-project, under the Capacity Building project ESTNV-I. CEETIA SANDEC, EAWAG (Switzerland). SDC support.
- Setting up of scientific basics of the Strategic Environmental Assessment (SEA). 2000 (Researcher). CEETIA, for VEPA, MOSTE.
- Setting up the Guidelines for Water and Air Quality Control. 2000 (Project secretary). CEETIA. Study under MOSTE and Ministry of Education and Training (MOET), Code B2000 34 79 MT.
- Setting up the methodology of valuation of environmental damages and compensation for damages caused by industrial and service activities. 1999 – 2000 (Project secretary). CEETIA, study under MOSTE.
- Setting up the Guidelines for Environmental Impact Assessment (EIA) of regional socio-economic development planning projects. 1999 (Researcher). CEETIA, study under MOSTE.
- Proposal of combined measures and establishment of pilot project to prevent environment in Hanoi city from pollution. 1996 1999 (Project secretary). CEETIA, demonstration project under MOSTE.
- Setting up the National environmental protection policy for the period of 2000 2020.
   1997 1998 (Project secretary). Study under MOSTE.

- Survey and evaluation of environmental pollution situation caused by industries in Hanoi city. 1996 1998 (Researcher). CEETIA, research program under DOSTE.
- Wastewater treatment for food processing industry by DAF method. 1991 1995. (PhD. Study). Moscow State Civil Engineering University (Russia).

## **Consulting activities:**

- Consultant. **Preparation of Operation & Maintenance Manual on Centralized Wastewater Treatment Plants in Industrial Areas.** Ministry of Planning and Investment WB (2014). Task: Team leader.
- Consultant. **Preparation of Construction and Operation Manual on Low-cost Latrines.** Ministry of Health UNICEF (2014). Task: Team leader.
- Consultant. **Preparation of Circular under newly issued on wastewater management.** Ministry of Construction GIZ (2014). Task: National expert.
- Consultant. Development of Set of Drawings, Bills of Quality and Cost Estimation for household-scale hygienic latrines. Ministry of Health AUSAID (2013). Task: Team leader.
- Consultant. **Vietnam urban wastewater sector review.** World Bank (2012 2013). Task: National wastewater specialist.
- Consultant. Project preparation. **Vietnam Industrial Pollution Management Project** (**VIPMP**). Ministry of Planning and Investment World Bank (2011). (Leader of CS.1-4 component). Task: to review design documents of loan candidates industrial zones for wastewater treatment plant construction, to recommend some most feasible IZs for investment, to prepare design packages for ready-to-invest IZs.
- **Preparation of Water supply and sanitation sector annual report.** Ministry of Health (MOH) WHO. (2011). Consultant team leader.
- **Study on Water Footprint in Vietnam.** UNEP and Department of Pollution Control, Vietnam Environment Administration. (2011). Consultant team leader.
- The Asian Development Bank (ADB), Contract in TA-6325 (REG): **Promoting Effective Water Management Policies and Practices** Phase 5. 2009 2010. The purpose is to evaluate strategic options for wastewater management for the proposed new central business district (CBD) of Thu Thiem, Ho Chi Minh City, taking into consideration climate change adaptation and mitigation measures. The outcome of the study would provide a comprehensive overview of urban sanitation issues, through: (i) analyzing centralized versus localized wastewater management, including feasibility of underground construction structure; (ii) defining appropriate climate change resilient technologies; and, (iii) defining suitable models for private sector participation in cities in Viet Nam. (Individual consultant).
- Consulting Services for "International Consultative Meeting on Water and Wastewater Management". For the United Nations Environment Programme Division of Technology, Industry and Economics International Environmental Technology Centre (UNEP-DTIE-IETC) and the International Lake Environment Committee Foundation (ILEC). To prepare Draft Background Document, to develop a Programmatic Package to scale-up/replicate existing and potential ESTs approaches for water use efficiency and wastewater management. 2010. (Individual consultant).
- Consultancy services for the Japan International Cooperation Agency (JICA), and the Vietnam Office and the Pollution Control Department (PCD), Vietnam Environmental Administration (VEA). By IESE. 2009 2010. The work is to support the implementation of the state plan on environmental pollution control till 2010 (decision 328/2005/QD-TTg) and development of new state plan on environment pollution control from 2010- 2020. (Team leader).

- Supporting the National Water Supply and Sanitation Sector Assessment Process (NWSAP) in Viet Nam. WHO Ministry of Health. 2009 2010. The overall function is to coordinate a technical assistance to the team at the General Department of Preventive Medicine and Environment (GDPM&E), Ministry of Health and relevant Ministries in the overall coordination and writing of the first National water and sanitation sector assessment report. (Team Leader).
- Industrial wastewater management in river basins Nhue Day and Dong Nai. 2009. Les Consultants LBCD Inc. World Bank. The objectives of this project were to provide overall understanding of the industrial pollution and environmental compliance at industrial estates in two river basins Nhue Day and Dong Nai, and, a detailed assessment of the current status and potential approaches for improving wastewater management at industrial estates, large-scale stand-alone polluting industries, and craft villages within the Nhue Day River Basin of Vietnam. IESE (Nguyen Viet Anh was a Team leader) was responsible for carrying out of inventories service of Industrial Estates (Industrial Parks and Industrial Clusters), and the Industries within those Industrial Estates, stand-alone polluting industries and craft villages in provinces of Ha Nam and Nam Dinh.
- Support to the implementation of the State Plan on Environmental Pollution Control till 2010 (Decision 328/2005/QD-TTg) and development of new State plan on environmental pollution control from 2010 2020. Department of Pollution Control, Vietnam Environment Administration. JICA support. 2009 (Team leader). The work was focusing to facilitate participatory planning for the implementation of Decision 328/2005/QD-TTg December 12, 2005 till end 2010 and the State plan on environmental pollution control to the year 2020; to assess the current implementation of Decision 328/2005/QD-TTg; to propose the solutions to accelerate the process of implementation task, program, project, plan and implementation of environmental pollution control plan until 2010; and, to give recommendations on planning new phase of State plan 2010-2020.
- The World Bank's hydraulic modeling study contributing to an Assessment of the impact of climate change on the design of drainage systems in Coastal Cities Environmental Sanitation Project (CCESP) in the Nha Trang, Dong Hoi and Quy Nhon cities. 2008 2009. (Local consultative group member).
- Evaluation of economic impacts of sanitation interventions (ESI-2 study) in Vietnam. Water and Sanitation Program (WSP), World Bank. 2008 2010. (Team Leader).
- Inventory of pollution sources in Hanoi, Hai Phong and Ho Chi Minh cities and setting up of Pollution control program. Project is conducted for the Department of Pollution Control, Vietnam Environment Administration. 2008. (Team leader).
- Short-term Mission: Evaluation of the phase 1 (2003 2009) of the Water Supply and Sanitation Program for the Small Towns in Vietnam (WSPST) and Appraisal of the Project Document for the phase 2 (2009 2013). Ministry of Foreign Affairs of Finland. 2009. Public utility enterprise and sustainability expert.
- Short-term Mission. **Preparation of the Background Paper for the Sustainable Urban Development Forum (SDUF).** Urban Solutions InWEnt, for the Federal Ministry for Economic Cooperation and Development (BMZ), Germany and Ministry of Construction (MOC), Vietnam. 2008 2009.
- Compilation and delivery of training course on Low-cost Sanitation Options for the Poor Communities. 2008. Component "Pollution Control in Poor Densely Populated Areas (PCDA). DANIDA (Denmark) Ministry of Natural Resources and Environment (MONRE), for relevant staff in 4 provinces, Vietnam. (Team leader).

- Supporting the Preparation of a Project Proposal describing development of a Unified Sanitation Strategy and Action Plan (U3SAP) Vietnam. 2006 2007. Vietnam Association of Water Supply and Sewerage CEETIA SECO JSC as Consultant signed the Contract with the Water and Sanitation Program (WSP), World Bank Vietnam. Consultant has developed a full proposal describing a new Government-led Project to develop a Unified Sanitation Strategy and Action Plan (U3SAP). The proposal has been prepared on behalf and with active contribution of MPI, MARD, MOC, MOH, MONRE and another Government partners, for their subsequent joint submission to Government of Vietnam. WSP/WB Vietnam has provided technical and financial support for the study. (Technical component Team Leader)
- Evaluation of pilot water supply projects based on DBL model in Lim and Minh Duc towns. 2007 (Team leader). Adcom consulting JSC, for WB Vietnam. Evaluation of 2 pilot water supply projects based on DBL (design build lease) model in Lim (Bac Ninh province) and Minh Duc (Hai Phong city) towns; Comparison between DBL model with other traditional models; Possibility of wider application of DBL model.
- Proposal of low-cost sanitation systems for sanitation projects in a small town of Cho Ra in Bac Kan province. 2007 (Local sanitation short-term consultant). CDC Consulting Co, for the Small Towns Water and Sanitation Program, managed by the FINIDA (Finland) and the Ministry of Construction (Vietnam). Final Report has been approved and now is used for further detailed design and construction phases.
- Technical support for the provincial water supply companies involved in the Mixed Credit Program in Vietnam, 2006 2007. (Training Expert). Carl Bro Vietnam Co. is implementing the project under the Ministry of Construction (Vietnam) DANIDA (Denmark) Mixed Credit Program focusing on HRD need assessment, setting up and conducting of the training program for the leaders of 14 provincial and town water supply companies in Vietnam for their improvement of management capacity and to adapt to the changes in water sector in Vietnam, especially with the issue of new water supply and sanitation Decrees, privatization process, etc.
- Proposal/design of low-cost sanitation system for 2 sanitation projects in An Bai town (Thai Binh province) and Minh Duc town (Hai Phong city). 2006 (Short-term local consultant). Vinaconsult JSC. Small Towns Water and Sanitation Program FINIDA (Finland), Ministry of Construction (Vietnam).
- Need Assessment and Development of HRD Program for Water and Sanitation management systems in small towns in the North of Vietnam. 2006. (Local consultant).
   Small Towns Water and Sanitation Program – FINIDA (Finland), Ministry of Construction (Vietnam).
- Demonstration wastewater management project in Ta Thanh Oai and Huu Hoa Communes, Thanh Tri district, Hanoi Sub-urb. 2005 2006 (Deputy Team leader). IWEET Vietnam Environment Protection Agency (VEPA).
- Sanitation management project with public participation in Lai Xa village, Kim Chung commune, Hoai Duc district, Ha Tay province. 2003 2006. (Technical consultant). YWAM (NGO) Kim Chung commune People Committee. Setting up of awareness raising program and provision of training activities, design and installation of sanitation management systems with private sector/public participation including household separation of solid waste, collection and treatment (by composting) of solid waste by the local sanitation team, construction of low-cost sewerage and drainage network and wastewater treatment systems, safe wastewater and compost product reuse in agriculture, etc.
- Wastewater management, reuse and its impacts in agriculture. 2004. (Short-term local consultant). UN ESCAP IWMI study.

- **Decentralized wastewater management (DWWM). A Hanoi case study.** 2004. (Local study team leader). GHK International (UK) CEETIA. DFID support project.
- Urban and industrial environmental management needs assessment mission. 2004. (Local consultant). GTZ MBZ (Germany) Ministry of Natural Resources and Environment (MONRE Vietnam).
- **External Evaluation Mission.** 2004. (Consultant). Review of a SDC funded project on the Capacity Building for the Institute for Environment and Resources (IER-CEFINEA), Vietnam National University of Ho Chi Minh city (VNU HCMC). SDC CEETIA.
- Assessment of Ecosan application in urban areas of Vietnam. 2003. (Study team leader).
   Globconsult South East Asia Environmental Secretariat (SENSA), SIDA, Sweden.
- Sustainable urban drainage systems (SUDS). A Vietnam case study. 2003. (Local study team leader). WEDC (UK) CEETIA. DFID support project.
- **Decentralized wastewater management (DWWM). A Vietnam case study.** 2003. (Local study team leader). GHK International (UK) CEETIA. DFID support project.
- Assessment of development results in sustainable development in Vietnam through evaluation of related UNDP projects. A local study. (2003). Local consultant. UNDP Hanoi - Globconsult.
- Community-based rural infrastructure project (CBRIP) for 13 provinces in Vietnam.
   2003. (Consultant Training expert). Ministry of Planning and Investment (MPI), World Bank (WB) loan.
- **Project Sustain Hanoi** (VIE 95050). 2002 (Local consultant). EU & Hanoi People Committee (PC) fund.
- Water treatment and water supply system optimization and upgrading, O&M Guidelines. 2001 2004. (Utility management specialist). Hai Phong Water Supply, Sewerage, Drainage and Sanitation Program (WSSDS). Soil and Water Ltd. (Finland) Hai Phong Water Supply Co. (WB FINIDA fund).
- Regional Co-operation and Integration in South and East Asia: Survey of Selected Regional Initiatives. 2001. (Local study team leader). Asia pacific development center (APDC) Study, sponsored by the European Commission (EC).
- Study on environmental issues related to the sustainable development of a modern sector in Vietnam and possible areas for Swedish support. 2001 2002 (Local project coordinator). VA-projekt (Sweden). (SIDA fund).
- An Asia-Europe Partnership for Sustainable Investment (Asia E INVEST). 2001 2002. (Local study team leader). Joint study. APDC, European Partners for the Environment (EPE), Regional Institute of Environmental Technology (RIET), the International Institute for Environment and Development (IIED) and the United Nations Environment Programmed (UNEP), sponsored by the European Commission (EC) within the framework of its Asia Eco-Best Program (AEB).
- **Pre-feasibility study on project of Goi town rural water supply,** Nam Dinh prov. 2000 2001 (Project consultant). Lux-Development SA. (Luxembourg fund).
- **O&M** optimization for the wastewater treatment station at Meritus Westlake hotel complex. 1997 1999 (Consultant). CEETIA Vietnam-Singapore JVC.
- Compiling of Environmental Profile of Vietnam. 1998 (Study team leader). JICA (Japan) fund.
- Environmental and performance monitoring for wastewater treatment plant at Honda Vietnam Manufacture, 1998 (Consultant). CEETIA, for Honda Vietnam Co.

• Water supply project for H'Mong ethnic minority cultural market in Bac Ha townlet, Lao Cai province. 1997 (Construction supervision consultant). YWAM (Intl' NGO).

## Other consulting activities

- Manufacturing, Installation & Construction, Commissioning and Technology Transfer of wastewater collection and treatment systems, including prefabricated treatment modules for communities, handicraft villages, office buildings, factories, hospitals...: Compact Wastewater Treatment System for Stylestone Co. (Hanoi, 2013), Tay Thien Religious and Tourism area (2013), Vicostone Co. (Hanoi, 2011), for Zorro Pharmacy Company (Hanoi, 2011), Tourist Port in Cat Ba Island (Hai Phong, 2011), Urban Planning Palace (Hanoi, 2010), VIPs apartment complex at National Congress Center (Hanoi, 2010), Mefrimex Eco-resort villa complex (Hanoi, 2011); Decentralized Low-cost Wastewater Treatment System for Vietnam Friendship Village in Xuan Phuong commune, Tu Liem district, Hanoi (2008), Lai Xa village, Kim Chung commune, Hoai Duc district, Hanoi (2006 2007), Ta Thanh Oai and Huu Hoa communes, Thanh Tri district, Hanoi (2005), Tan Hoa commune, Hoai Duc district, Hanoi (2002), Tam Da village, Tien Son district, Bac Ninh province (2002), Hai Binh seafood processing village, Tinh Gia district, Thanh Hoa province (2002), etc.
- Design, Equipment supply, Commissioning and Technology Transfer of wastewater collection and treatment systems for communities, handicraft villages, office buildings, factories, hospitals...: Compact Wastewater Treatment System for International Hospital in Hai Phong city (2013), Commercial Complex, Cai Gia Resort, Cat Ba Island (2009), new Apartments CT1, CT2, Ngo Thi Nham living quarter, Ha Dong District, Hanoi (2009), VDIB Bank Tower, Hanoi (2009), low-income residential area in Vinh Yen town, Vinh Phuc province (2007), K74 hospital, Vinh Phuc province (2006), Cat Co resort, Cat Ba Island, Hai Phong city (2003), Do Son Beach tourist area, Hai Phong city (2002), Waste Stabilization Ponds system for Dai Tan tapioca-based ethanol factories in Xuan Loc, Dong Nai province (2009), in Dai Loc, Quang Nam province (2008), Xuan Mai concrete factory residential quarter, Chuong My district, Hanoi (2007), etc.
- Process optimization, System operatiin improvement and Technology Transfer of water supply, wastewater collection and treatment systems for Merituc Wastelake hotel (Hanoi), Sun Red River Building, Vietcombank Building, KS Sunway (Hanoi), vv,....
- Construction Management Consultant for water supply project in Bac Ha Cultural market (Lao Cai), Lai Xa commune (Hanoi), Flamingo water supply and wastewater treatment systems (Vinh Phuc province), etc.
- Evaluation of Feasibility Study and Technical Designs, Evaluation of Tenders for the design consultancy, for the construction work and construction supervision, project management for number of water supply and sanitation projects, such as:
  - wastewater treatment system for Eco-Park new residential and commercial complex (2012);
  - water supply system for Eco-Park new residential and commercial complex (2012);
  - wastewater treatment system for Flamingo Resort (2011);
  - water supply system for Flamingo Resort (2011);
  - Wastewater treatment system for yen Phong industrial park, Bac Ninh province, Viglacera Corp. (2010, Consultant);
- Wastewater treatment system for Yen Bai industrial park, Yen Bai province (2009, Team leader);
- Urban drainage and hydraulic balance for Eco-Park new residential and commercial complex (2009):
- wastewater treatment system for Trang Due industrial park, Hai Phong city, (2008, Team leader);
- water supply system for Seeding garden, Hanoi Green parks Co (2008);
- water supply systems for 2 communes in Nam Truc district, Nam Dinh province (2007);

- wastewater treatment system for Tu Son industrial park, Bac Ninh province, Viglacera Corp. (2007, Consultant);
- water supply system for Thi Vai Port expansion project (2006);
- water supply project in Kien An District, Hai Phong Water Supply Company, WB FINIDA mixed credit Water and Sanitation for 4 provinces in Vietnam (2006, Team leader);
- wastewater treatment plant for West lake area, Hanoi city (2005);
- rural water supply and sanitation project design evaluation. 2004. (Short-term consultant).
   Church World Service (CWS) NGO.
- etc.
- Participation in the Environmental Monitoring campaigns for urban and industrial sites in the northern part of Vietnam: Hanoi, Hai Phong, Lao Cai, Ha Long, Hue, Thanh Hoa and Vinh cities (CEETIA, under VEPA Environmental Monitoring program) (1996 – to presence).
- Preparation of Strategic Environmental Assessment (SEA) reports for: 2010 2020 Master plan for development of industrial zones in Central core economic zone (MONRE contract, 2007), 2015 2020 Land use plan for Van Canh district, Binh Dinh province (MONRE and SEMLA contract, 2008), 2015 2020 Socio-economic development master plan for the core economic region of the Red river delta (WB MPI contract, 2009). Per reviewed and participated in appraisal commissions for more than 10 SEA reports for MONRE.
- Preparation of Environmental Impact Assessment (EIA) Guidelines, prepared EIA reports for over 30 projects, such as Hanoi water supply project 1A (1997); Master plan of transportation in Hanoi city (1998); Highway No. 1 (1997); Highway No. 18 (1998); Cau Dien solid waste composting plant, Hanoi city (1997); Tay Mo Landfill, Hanoi city (1998); Hoang Thach cement plant, Hai Duong province (1998); EBARA Pump factory, Hai Duong province (1998); Nomura Industrial zone, Hai Phong city (1997), North Thang Long Industrial park, Hanoi city (1997); North Thang Long urban infrastructure development, Hanoi city (1998), Water quality improvement for the West Lake, Hanoi (2001), Solid waste management complex for Vinh city, Nghe An province (2002), Wastewater and solid waste management project for Bac Ninh townlet, Bac Ninh province (2003); Tien Son and Que Vo industrial zones, Bac Ninh province (2004); Vietnam National Assemble Palace (2011 2012); etc. Per reviewed and participated in appraisal commissions for more than 30 EIA reports for MONRE and other organizations.

### **PUBLICATIONS (SELECTED)**

- Books, book chapters and selected peer reviewed reports:
- Shaw R., Nguyen Viet Anh, Dang Thi Thanh Huyen (Ed.) (2014). Sustainable water and sanitation services for all in a fast changing world. ISBN: 978-604-82-1337-4. Construction Publishing House. Hanoi. Vietnam.
- Pham Ngoc Dang, Nguyen Viet Anh, Nguyen Van Muon, Pham Hai Ha (2014). Design solutions for green buildings in Vietnam. Construction Publishing House.
- Le Duy Hung, Alan Coulthart, Sudipto Sarkar, James Corning, Nguyen Viet Anh, Tran Viet Nga and Ross Kearton (2013). Vietnam Urban Wastewater Review. The World Bank.
- US EPA/600/R-12/618 (2012). Guidelines for Water Reuse. U.S. Environmental Protection Agency, Office of Wastewater Management, Office of Water. Washington, D.C. National Risk Management Research Laboratory, Office of Research and Development. Cincinnati, Ohio. U.S. Agency for International Development. Washington, D.C. CDM Smith Inc. (http://nepis.epa.gov/Adobe/PDF/P100FS7K.pdf) (Contributor).
- Nguyen, VA., Lan, HT., Dan PH., Hoa, LT., Nhung, BT., Hutton, G. Economic assessment of sanitation interventions in Vietnam. World Bank, Water and Sanitation Program, 2012. (www.wsp.org).
- Nguyen Viet Anh, Nguyen Hong Sam, Dinh Dang Hai, Nguyen Phuoc Dan, Nguyen Xuan Thanh (2011). Landscape Analysis and Business Model Assessment in Fecal Sludge

- Management: Extraction and Transportation Models in Vietnam. Final Report, December 2011. Bill and Melinda Gates Foundation (BMGF).
- Nguyen Huy Nga, Tran Dac Phu, Nguyen Viet Anh et al (2010). Manual on Construction, Utilization and Maintenance of Public Toilet. Ministry of Health. (Book, in Vietnamese).
- Dang Kim Chi, Tran Duc Vien, Nguyen Thanh Lam (co-editors), Nguyen Viet Anh and 11 other authors. Scientific and practical basics for environmental planning and management in Vietnam. Agriculture Publishing House. 2011. (Book, in Vietnamese).
- Nguyen Huy Nga, Tran Dac Phu, Nguyen Viet Anh et al (2010). Manual on Construction, Utilization and Maintenance of Household Toilet. Ministry of Health. (Book, in Vietnamese).
- Nguyen Viet Anh (2007). Septic tank and improved septic tank. Construction Publishing house (Book, in Vietnamese).
- Pham Ngoc Dang, Nguyen Viet Anh, Nguyen Khac Kinh, Tran Van Y, Tran Dong Phong (2006). Strategic Environment Assessment: Theory and Pilot Implementation in Vietnam. Construction Publishing House (Book, in Vietnamese).

# - Scientific papers:

- Nguyen Viet Anh (2015). Urban and industrial wastewater in Vietnam –usome achievements and the way forward. Journal of Water Supply and Sewerage (ISSN 1859 3623). No. 6 (104), 2015. Pp 50-55 (in Vietnamese).
- Bassan M., Ferre A., Nguyen V. A., Holliger C., Strande L. (2015). Local factors influence FS characteristics: research in Hanoi, Vietnam. Sandec News. SANDEC, EAWAG. No. 16, 7/2015. ISSN: 1420-5572. Pp. 14-15.
- Nguyen Viet Anh (2015). Main achievements and challenges in urban and industrial wastewater in Vietnam. Journal of Environment (ISSN 1859-042X). No. 9/2015. Pp. 46-50 (in Vietnamese).
- Thu Thuy Bui, Viet-Anh Nguyen, Trong Bang Le, Van Huong Trinh, Anh Dzung Dao. Hydrological performance evaluation of surface run-of in University campus for flood mitigation. Journal of Science & Technology, Vietnam Academy of Science and Technology (ISSN 0866-708X). Vol. 53 (3A) (2015), pp 145-150.
- Nguyen Thanh Trung, Kento N., Tadao O., Nguyen Viet Anh, Tran Hoai Son, Tran Quoc Hung, Bach Tuyet Hong, Duong Mai Huong, Ngo Ngoc Anh, Nghiem Van Chan. Evaluation of improved aeration high rate filtration without chemicals for co-treatment of iron, manganese and ammonium in Hanoi area groundwater. Journal of Water supply and sewerage (ISSN 1859 3623). No. 44 (102), 2015, pp 44-47.
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- Bassan M., Dao N., Nguyen V.A., Holliger C., Strande L. (2014). Technologies for sanitation: how to determine appropriate sludge treatment strategies in Vietnam. In the book: Sustainable water and sanitation services for all in a fast changing world. Shaw R., Nguyen Viet Anh, Dang Thi Thanh Huyen (Ed.). ISBN: 978-604-82-1337-4. Construction Publishing House. Hanoi. Vietnam. Pp 87-92.
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### Patent (registered):

- Packaged anaerobic aerobic wastewater treatment system BASTAFAT (No. 9577, Vietnam Office of Intellectual Property).
- **Nozzle** used for generation and distribution of air bubbles in water treatment dissolved air flotation process (No. 10788, Vietnam Office of Intellectual Property).

#### **Awards**

- **Medal.** Awarded for the Compact Small-scale wastewater treatment station AFSB 100. (Author). The first Vietnam TechMart 2003. Hanoi, November 2003.
- **Vietnam Environment Cup.** Awarded for the series of decentralized wastewater treatment solutions for urban, peri-urban and rural communities. The first Vietnam Environmental Technology Congress and Exhibition. Hanoi, April 2006.
- **Certificates of Merit.** Awarded for the achievements in scientific research activities in the period 2000 2005, by the Minister of the Vietnam Ministry of Education and Training (MOET), December 2006, and for the period 2006 2010, MOET, September 2011.
- **Thang Long prize** for scientific technological achievements, by the Hanoi city authority, 2008.
- **Prize from Hanoi City** for scientific technological achievements in occasion of 1000 years celebration of Thang Long Hanoi city. 2010.
- **Medal.** Awarded for the Compact Small-scale wastewater treatment systems BASTAFAT and AFSB. (Author). Vietnam TechMart 2015. Hanoi, October 2015.

### **CERTIFICATION**

I certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualification and my experiences. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if employed.

## Nguyen Viet Anh (signed)